



# Administrative Package Cover Page

**This file contains the following documents:**

1. Summary of application (in plain language)
    - English
    - Alternative Language (Spanish)
  2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
    - English
    - Alternative Language (Spanish)
  3. Application materials
- 



# Portada de Paquete Administrativo

**Este archivo contiene los siguientes documentos:**

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
  - Inglés
  - Idioma alternativo (español)
2. Primer aviso (NORI, por sus siglas en inglés)
  - Inglés
  - Idioma alternativo (español)
3. Solicitud original

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS  
INDUSTRIAL WASTEWATER/STORMWATER**

*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.*

Equistar Chemicals, LP (CN600124705) and LyondellBasell Acetyls, LLC (CN603674862) operate the Equistar Chemicals La Porte Complex (RN100210319), which manufactures ethylene, propylene, and acetyls. INEOS, another company located on-site, manufactures polyalphaolefins. The facility is located at 1515 Miller Cut-Off Road, north of the City of La Porte in Harris County, Texas 77520. The application is for renewal and amendment of TPDES Permit No. WQ0004013000.

Outfalls 001, 003, 004, and 007 are the main wastewater outfalls that are authorized to discharge process wastewater, utility wastewaters, domestic wastewater, and stormwater. Internal Outfalls 101, 104, 207, 307, and 407 are authorized to discharge treated domestic wastewater. Outfall 105 is authorized to discharge stormwater, utility wastewaters, and domestic wastewater. Outfalls 005, 006, and 008 discharge primarily stormwater, but may include utility and other miscellaneous wastewaters. Outfalls 204, 009, and 010 are potentially future outfalls.

Wastewater discharges are expected to contain biochemical/chemical oxygen demand, suspended solids, total organic carbon, oil and grease, and metals. Other constituents for each outfall are listed in Worksheet 2 of the application.

Permit amendments included in the application are: 1) include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010; 2) include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007; 3) increase daily average flow limit to 2.0 MGD for Outfall 004; 4) increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007; 5) add wastewater sources to several outfalls; 6) remove daily average and daily maximum mass limits for aluminum from Outfall 001; 7) remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001; 8) remove daily maximum concentration limits for nonylphenol from Outfall 003; 9) remove daily average concentration limits for aluminum and zinc for Outfall 003; 10) remove daily average and daily maximum concentration limits for cyanide from Outfall 005; 11) remove daily average and daily maximum temperature limits for Outfall 007; 12) increase or remove the daily average limit for dissolved oxygen from Outfall 007; 13) remove daily average and daily maximum mass limits for ammonia from Outfall 007; 14) remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008; 15) change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007; and 16) authorize ultraviolet disinfection of domestic wastewaters.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP****AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES**

*El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.*

Equistar Chemicals, LP (CN600124705) y LyondellBasell Acetyls, LLC (CN603674862) operan el Equistar Chemicals La Porte Comple (RN100210319), que fabrica etileno, propileno y acetilos. INEOS, otra empresa ubicada en el mismo lugar, fabrica polialfaolefinas. La instalación está ubicada en 1515 Miller Cut-Off Road, al norte de la ciudad de La Porte, en el Condado de Harris, Texas 77520. La solicitud es para la renovación y modificación del permiso TPDES no. WQ0004013000.

Los Outfalls 001, 003, 004 y 007 son los principales emisarios de aguas residuales autorizados para verter aguas residuales de proceso, aguas residuales de servicios públicos, aguas residuales domésticas y aguas pluviales. Los Outfalls internos 101, 104, 207, 307 y 407 están autorizados para verter aguas residuales domésticas tratadas. El Outfall 105 está autorizado a descargar aguas pluviales, aguas residuales de servicios públicos y aguas residuales domésticas. Los Outfalls 005, 006 y 008 descargan principalmente aguas pluviales, pero pueden incluir aguas residuales de servicios públicos y otras aguas residuales diversas. Los Outfalls 204, 009 y 010 son potencialmente futuros emisarios.

Se espera que las descargas de aguas residuales contengan demanda bioquímica/química de oxígeno, sólidos en suspensión, carbono orgánico total, aceite y grasa, y metales. Otros componentes de cada Outfall se enumeran en la Worksheet 2 de la solicitud.

Las modificaciones del permiso incluidas en la solicitud son: 1) incluir opciones para que el Outfall 010 incluya flujos del Outfalls 004, 005 y/o 007 y eliminar los límites de cloro del Outfall 010; 2) incluir aguas residuales de la instalación adyacente de gas de síntesis en el Outfall 004 y el Outfall 007; 3) aumentar el límite de flujo medio diario a 2.0 MGD para el Outfall 004; 4) aumentar el límite de flujo medio diario a 1.6 MGD y el límite de flujo máximo diario a 2.0 MGD para el Outfall 007; 5) añadir fuentes de aguas residuales a varios Outfalls; 6) eliminar los límites de masa media diaria y máxima diaria para el aluminio del Outfall 001; 7) eliminar los límites de masa y concentración media diaria y máxima diaria para el nonilfenol del Outfall 001; 8) eliminar los límites de concentración máxima diaria para el nonilfenol del Outfall 003; 9) eliminar los límites de concentración media diaria para el aluminio y el zinc del Outfall 003; 10) eliminar los límites de concentración máxima y media diaria de cianuro del Outfall 005; 11) eliminar los límites de temperatura máxima y media diaria del Outfall 007; 12) aumentar o eliminar el límite de concentración media diaria de oxígeno disuelto del Outfall 007; 13) eliminar los límites de masa máxima y media diaria de amoníaco del Outfall 007; 14) eliminar los límites máximos de concentración diaria de aluminio y cianuro y la monitorización del zinc del Outfall 008; 15) cambiar la frecuencia de monitorización del hexaclorobenceno a anual para los Outfalls 001, 004 y 007; y 16) autorizar la desinfección ultravioleta de las aguas residuales domésticas.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT AMENDMENT

**PERMIT NO. WQ0004013000**

**APPLICATION.** Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D, Deer Park, Texas 77536, which own the Equistar Chemicals La Porte Complex, have applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004013000 (EPA I.D. No. TX0119792) to authorize the following proposed amendments: include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010; include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007; increase daily average flow limit to 2.0 MGD for Outfall 004; increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007; add wastewater sources to several outfalls; remove daily average and daily maximum mass limits for aluminum from Outfall 001; remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001; remove daily maximum concentration limits for nonylphenol from Outfall 003; remove daily average concentration limits for aluminum and zinc for Outfall 003; remove daily average and daily maximum concentration limits for cyanide from Outfall 005; remove daily average and daily maximum temperature limits for Outfall 007; decrease or remove the daily average limit for dissolved oxygen from Outfall 007; remove daily average and daily maximum mass limits for ammonia from Outfall 007; remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008; change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007; and authorize ultraviolet disinfection of domestic wastewaters. The facility is located at 1515 Miller Cut Off Road, near the city of La Porte, in Harris County, Texas 77571. The discharge route is from the plant site via Outfalls 001, 003, 004, 005, 006, 007, 008, and 009 to an unnamed ditch, thence to an unnamed ditch (tidal), thence to San Jacinto Bay; and via Outfall 010 directly to San Jacinto Bay. TCEQ received this application on March 20, 2025. The permit application will be available for viewing and copying at La Porte Branch Library, 600 South Broadway Street, La Porte, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.061592,29.711737&level=18>



The application is subject to the goals and policies of the Texas Coastal Management Program and must be consistent with the applicable Coastal Management Program goals and policies.

**ALTERNATIVE LANGUAGE NOTICE.** Alternative language notice in Spanish is available at: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

**ADDITIONAL NOTICE.** TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

**PUBLIC COMMENT / PUBLIC MEETING.** You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

**OPPORTUNITY FOR A CONTESTED CASE HEARING.** After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

**TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST:** your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

**MAILING LIST.** If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

**INFORMATION AVAILABLE ONLINE.** For details about the status of the application, visit the Commissioners' Integrated Database at [www.tceq.texas.gov/goto/cid](http://www.tceq.texas.gov/goto/cid). Search the database using the permit number for this application, which is provided at the top of this notice.

**AGENCY CONTACTS AND INFORMATION.** All public comments and requests must be submitted either electronically at <https://www14.tceq.texas.gov/epic/eComment/>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at [www.tceq.texas.gov/goto/pep](http://www.tceq.texas.gov/goto/pep). Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Equistar Chemicals, LP and LyondellBasell Acetyls, LLC at the address stated above or by calling Ms. Andrea Peters, Environmental Engineer, Equistar Chemicals, LP, at 713-767-5704.

Issuance Date: April 22, 2025

# Comisión de Calidad Ambiental del Estado de Texas



## AVISO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA PERMISO MODIFICACION

**PERMISO NO. WQ0004013000**

**SOLICITUD.** Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D. Deer Park, Texas 77536 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0004013000 (EPA I.D. No. TX0119792) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar Las siguientes enmiendas propuestas: incluir opciones para el Emisario 010 para incluir los flujos de los Emisarios 004, 005 y/o 007 y eliminar los límites de cloro del Emisario 010; incluir aguas residuales de la instalación de syngas adyacente en los Emisarios 004 y 007; aumentar el límite de flujo promedio diario a 2.0 MGD para el Emisario 004; aumentar el límite de flujo promedio diario a 1.6 MGD y el límite de flujo máximo diario a 2.0 MGD para el Emisario 007; agregar fuentes de aguas residuales a varios emisarios; eliminar los límites de masa promedio diario y máximo de aluminio del Emisario 001; eliminar los límites de masa y concentración promedio diario y máximo de nonilfenol del Emisario 001; eliminar los límites de concentración máxima diaria de nonilfenol del Emisario 003; eliminar los límites de concentración promedio diaria de aluminio y zinc del Emisario 003; eliminar los límites de concentración promedio diaria y máxima de cianuro del Emisario 005; eliminar los límites de temperatura promedio diaria y máxima del Emisario 007; disminuir o eliminar el límite promedio diario de oxígeno disuelto del Emisario 007; eliminar los límites de masa promedio diaria y máxima de amoníaco del Emisario 007; eliminar los límites de concentración máxima diaria de aluminio y cianuro y el monitoreo de zinc del Emisario 008; cambiar la frecuencia de monitoreo de hexaclorobenceno a anual para los Emisarios 001, 004 y 007; y autorizar la desinfección ultravioleta de aguas residuales domésticas. La planta está ubicada 1515 Miller Cut Off Road, cerca de la ciudad de La Porte, en el Condado de Harris County, Texas 77571. La ruta de descarga es del sitio de la planta a través de los emisarios 001, 003, 004, 005, 006, 007, 008 y 009 hacia un canal sin nombre (marea), y luego hacia la Bahía de San Jacinto; y a través del emisario 010 directamente hacia la Bahía de San Jacinto. La TCEQ recibió esta solicitud el día 20 de marzo de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en La Porte Branch Library, 600 South Broadway Street, La Porte, en el condado de Harris, Texas, antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.  
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.061592,29.711737&level=18>

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

**COMENTARIO PUBLICO / REUNION PUBLICA.** Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

**OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.** Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS:** su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar

**cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.**

**Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

**LISTA DE CORREO.** Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

**CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087.** Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Equistar Chemicals, LP y LyondellBasell Acetyls, LLC a la dirección indicada arriba o llamando a Andrea Peters al 713-767-5704.

Fecha de emisión 22 de abril de 2025

Brooke T. Paup, *Chairwoman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 20, 2025

Re: Confirmation of Submission of the Major Amendment with Renewal for Industrial Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Major Amendment with Renewal for the Industrial Wastewater authorization.

ER Account Number: ER071191

Application Reference Number: 753662

Authorization Number: WQ0004013000

Site Name: Equistar Chemicals La Porte Complex

Regulated Entity: RN100210319 - Equistar Chemicals La Porte Complex

Customer(s): CN600124705 - Equistar Chemicals, LP, CN603674862 - Lyondellbasell Acetyls, LLC

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at [WQ-ARPTeam@tceq.texas.gov](mailto:WQ-ARPTeam@tceq.texas.gov) or by telephone at (512) 239-4671.

Sincerely,  
Applications Review and Processing Team  
Water Quality Division

**Texas Commission on Environmental Quality**  
Update Domestic or Industrial Individual Permit  
WQ0004013000

### Site Information (Regulated Entity)

What is the name of the site to be authorized?	EQUISTAR CHEMICALS LA PORTE COMPLEX
Does the site have a physical address?	Yes
<b>Physical Address</b>	
Number and Street	1515 MILLER CUT OFF RD
City	LA PORTE
State	TX
ZIP	77571
County	HARRIS
Latitude (N) (##.#####)	29.711737
Longitude (W) (-###.#####)	-95.061592
Primary SIC Code	2821
Secondary SIC Code	2869
Primary NAICS Code	
Secondary NAICS Code	
<b>Regulated Entity Site Information</b>	
What is the Regulated Entity's Number (RN)?	RN100210319
What is the name of the Regulated Entity (RE)?	EQUISTAR CHEMICALS LA PORTE COMPLEX
Does the RE site have a physical address?	Yes
<b>Physical Address</b>	
Number and Street	1515 MILLER CUT OFF RD
City	LA PORTE
State	TX
ZIP	77571
County	HARRIS
Latitude (N) (##.#####)	29.710833
Longitude (W) (-###.#####)	-95.0625
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL POLYETHYLENE MFG

### Equista-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
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What is the applicant's Customer Number (CN)?	CN600124705
Type of Customer	Corporation
<b>Full legal name of the applicant:</b>	
Legal Name	Equistar Chemicals, LP
Texas SOS Filing Number	10258111
Federal Tax ID	760550481
State Franchise Tax ID	17605504814
State Sales Tax ID	
Local Tax ID	
DUNS Number	969557263
Number of Employees	501+
Independently Owned and Operated?	No
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
<b>Responsible Authority Contact</b>	
Organization Name	Equistar Chemicals, LP
Prefix	MR
First	Mark
Middle	
Last	Bookmyer
Suffix	
Credentials	
Title	SITE MANAGER
<b>Responsible Authority Mailing Address</b>	
Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	P.O. Drawer D
Routing (such as Mail Code, Dept., or Attn:)	
City	DEER PARK
State	TX
ZIP	77536
Phone (###-###-####)	7133365475
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	andrea.peters@lyondellbasell.com

## Lyondel-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
--	-------



What is the applicant's Customer Number (CN)?	CN603674862
Type of Customer	Corporation
<b>Full legal name of the applicant:</b>	
Legal Name	LyondellBasell Acetyls, LLC
Texas SOS Filing Number	801196716
Federal Tax ID	271191233
State Franchise Tax ID	12711912332
State Sales Tax ID	
Local Tax ID	
DUNS Number	957636194
Number of Employees	501+
Independently Owned and Operated?	No
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
<b>Responsible Authority Contact</b>	
Organization Name	LyondellBasell Acetyls, LLC
Prefix	MR
First	Mark
Middle	R
Last	Bookmyer
Suffix	
Credentials	
Title	SITE MANAGER
<b>Responsible Authority Mailing Address</b>	
Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	P.O. DRAWER D
Routing (such as Mail Code, Dept., or Attn:)	
City	DEER PARK
State	TX
ZIP	77536
Phone (###-###-####)	7133365475
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	andrea.peters@lyondellbasell.com

## Billing Contact

**Responsible contact for receiving billing statements:**

Select the permittee that is responsible for payment of the annual fee.

CN600124705, Equistar Chemicals,  
LP

Organization Name

Equistar Chemicals, LP

Prefix

MS

First

Andrea

Middle

Last

Peters

Suffix

Credentials

Title

Environmental Engineer

Enter new address or copy one from list:

**Mailing Address**

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

1515 MILLER CUT OFF RD

Routing (such as Mail Code, Dept., or Attn:)

City

LA PORTE

State

TX

ZIP

77571

Phone (###-###-####)

7137675704

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

andrea.peters@lyondellbasell.com

## Application Contact

**Person TCEQ should contact for questions about this application:**

Same as another contact?

Organization Name

Equistar Chemicals, LP

Prefix

First

Andrea

Middle

Last

Peters

Suffix

Credentials

Title

Environmental Engineer

Enter new address or copy one from list:

**Mailing Address**

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

PO Drawer D

Routing (such as Mail Code, Dept., or Attn:)

City

DEER PARK

State

TX

ZIP

77536

Phone (###-###-####)

7137675704

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

andrea.peters@lyondellbasell.com

## Technical Contact

**Person TCEQ should contact for questions about this application:**

Same as another contact?

Organization Name

Equistar Chemicals LP

Prefix

MS

First

Andrea

Middle

Last

Peters

Suffix

Credentials

Title

Environmental Engineer

Enter new address or copy one from list:

**Mailing Address**

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

PO Drawer D

Routing (such as Mail Code, Dept., or Attn:)

City

Deer Park

State

TX

ZIP

77536

Phone (###-###-####)

7137675704

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

andrea.peters@lyondellbasell.com

## DMR Contact

**Person responsible for submitting Discharge Monitoring Report Forms:**

Same as another contact?

Organization Name	EQUISTAR CHEMICALS LP
Prefix	MS
First	Andrea
Middle	
Last	Peters
Suffix	
Credentials	
Title	Environmental Engineer
Enter new address or copy one from list:	
<b>Mailing Address:</b>	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO Drawer D
Routing (such as Mail Code, Dept., or Attn:)	
City	DEER PARK
State	TX
ZIP	77536
Phone (###-###-####)	7137675704
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	andrea.peters@lyondellbasell.com

## Section 1# Permit Contact

### Permit Contact#: 1

#### Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Application Contact
2) Organization Name	Equistar Chemicals, LP
3) Prefix	MS
4) First	Andrea
5) Middle	
6) Last	Peters
7) Suffix	
8) Credentials	
9) Title	Environmental Engineer
<b>Mailing Address</b>	
10) Enter new address or copy one from list	
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	1515 MILLER CUT OFF RD
11.2) Routing (such as Mail Code, Dept., or Attn:)	

11.3) City	LA PORTE
11.4) State	TX
11.5) ZIP	77571
12) Phone (###-###-####)	7137675704
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	andrea.peters@lyondellbasell.com

## Section 2# Permit Contact

### Permit Contact#: 2

**Person TCEQ should contact throughout the permit term.**

1) Same as another contact?	
2) Organization Name	Equistar Chemicals LP
3) Prefix	MR
4) First	Heath
5) Middle	
6) Last	McCartney
7) Suffix	
8) Credentials	
9) Title	Environmental Manager

### Mailing Address

10) Enter new address or copy one from list	Site Physical Address
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	1515 MILLER CUT OFF RD
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	LA PORTE
11.4) State	TX
11.5) ZIP	77571
12) Phone (###-###-####)	7133365281
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	james.mccartney@lyondellbasell.com

## Owner Information

### Owner of Treatment Facility

1) Prefix	MR
-----------	----

2) First and Last Name	Mark Bookmyer
3) Organization Name	Equistar Chemicals LP
4) Mailing Address	P.O. Drawer D
5) City	Deer Park
6) State	TX
7) Zip Code	77536
8) Phone (###-###-####)	7133365475
9) Extension	
10) Email	mark.bookmyer@lyondellbasell.com
11) What is ownership of the treatment facility?	Private
<b>Owner of Land (where treatment facility is or will be)</b>	
12) Prefix	MR
13) First and Last Name	Mark Bookmyer
14) Organization Name	Equistar Chemicals LP
15) Mailing Address	P.O. Drawer D
16) City	Deer Park
17) State	TX
18) Zip Code	77536
19) Phone (###-###-####)	7132091280
20) Extension	
21) Email	Mark.bookmyer@lyondellbasell.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

## General Information Renewal-Amendment

1) Current authorization expiration date:	03/18/2026
2) Current Facility operational status:	Active
3) Is the facility located on or does the treated effluent cross American Indian Land?	No
4) What is the application type that you are seeking?	Major Amendment with Renewal
4.1) Describe the proposed changes:	See Technical Report, Item 13 Permit Changes.
5) Current Authorization type:	Industrial Wastewater
5.1) What is your EPA facility classification?	Major
5.1.1) Select the applicable fee	Major Amendment - \$2,050
6) What is the classification for your authorization?	TPDES
6.1) What is the EPA Identification Number?	TX0119792
6.2) Is the wastewater treatment facility location in the existing permit accurate?	Yes
6.3) Are the point(s) of discharge and the discharge route(s) in the	Yes

existing permit correct?

6.4) City nearest the outfall(s):

La Porte

6.5) County where the outfalls are located:

HARRIS

6.6) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

No

6.7) Is the daily average discharge at your facility of 5 MGD or more?

No

7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

No

## Public Notice Information

### Individual Publishing the Notices

1) Prefix

MS

2) First and Last Name

Andrea Peters

3) Credential

4) Title

Environmental Engineer

5) Organization Name

Equistar Chemicals LP

6) Mailing Address

1515 MILLER CUT OFF RD

7) Address Line 2

8) City

LA PORTE

9) State

TX

10) Zip Code

77571

11) Phone (###-###-####)

7137675704

12) Extension

13) Fax (###-###-####)

14) Email

andrea.peters@lyondellbasell.com

### Contact person to be listed in the Notices

15) Prefix

MS

16) First and Last Name

Andrea Peters

17) Credential

18) Title

Environmental Engineer

19) Organization Name

Equistar Chemicals LP

20) Phone (###-###-####)

7137675704

21) Fax (###-###-####)

22) Email

andrea.peters@lyondellbasell.com

### Bilingual Notice Requirements

23) Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

Yes

23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

No

23.2) Do the students at these schools attend a bilingual education program at another location?	Yes
23.3) Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC 89.1205(g)?	No
23.4) Which language is required by the bilingual program?	Spanish

## Section 1# Public Viewing Information

### County#: 1

1) County	HARRIS
2) Public building name	La Porte Branch Library
3) Location within the building	Public Notice Shelves
4) Physical Address of Building	600 S. Broadway Street
5) City	La Porte
6) Contact Name	Rhiannon Perry
7) Phone (###-###-####)	2814714022
8) Extension	
9) Is the location open to the public?	Yes

## Plain Language

### 1) Plain Language

#### [File Properties]

File Name	LANG_Attachment PLS-1 Plain Language Summary WQ0004013000 2025.pdf
Hash	EA13311F0FF0CBFBACCE6DAF2D2F6AC3357F773B8E618BA1EC71C7BFE5960972
MIME-Type	application/pdf

## Supplemental Permit Information Form

### 1) Supplemental Permit Information Form (SPIF)

#### [File Properties]

File Name	SPIF_Attachment SPIF-2 USGS Map WQ0004013000.pdf
Hash	8EA503831530BE6E42AAC8A618161A3FFE44E4BB44C6F26925DAEE9ED268EE29
MIME-Type	application/pdf

#### [File Properties]

File Name	SPIF_Attachment SPIF-3 Structures Older Than 50 Years WQ0004013000 2025.pdf
Hash	1F67C9EF8017C0F74FDB94C34E4C46BC1E693FC9484A57E420E57022A7E2CBCA



MIME-Type	application/pdf
[File Properties]	
File Name	SPIF_Attachment SPIF-1 Supplemental Permit Information Form WQ0004013000 2025.pdf
Hash	CC8F0EE0BF64231B276BD7A35015B15EDE9F1C7261980D4EFF2ED720F07A0815
MIME-Type	application/pdf

## Industrial Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.

[File Properties]	
File Name	MAP_Attachment A-1 USGS Map WQ0004013000.pdf
Hash	AA05803C3B2195CC9B5298A49C25C84F2FE7A408F14373090E9DC0F6D991A4F8
MIME-Type	application/pdf

2) Public Involvement Plan (TCEQ Form 20960)

[File Properties]	
File Name	PIP_Attachment PIP-1 Public Involvement Plan pg1 WQ0004013000 2025.pdf
Hash	5A095D5283F0BEE5EB7CF5CD8BA46A639F6B72619C9DB35FF0257FC18C740CEA
MIME-Type	application/pdf

3) Administrative Report 1.1

[File Properties]	
File Name	ARPT_Administrative Report 1-1 WQ0004013000 2025.pdf
Hash	5D39C456B828CA51D35E53C7DBF7AC3BCBF7C5BB350DB31933B96A7655354EDB
MIME-Type	application/pdf

4) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment. Yes

4.1) I confirm that Worksheet 2.0 (Pollutant Analyses Requirements) is complete and included in the Technical Attachment. Yes

4.2) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment. Yes

4.3) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment? No

4.4) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment? No

4.5) Are you planning to include Worksheet 7.0 (Stormwater No

Discharges Associated with Industrial Activities) to the Technical Attachment?

4.6) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment? No

4.7) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment? No

4.8) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment? No

4.9) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment? No

4.10) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment? No

4.11) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment? No

4.12) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment? No

4.13) Technical Attachment

[File Properties]

File Name	TECH_WQ0004013000 TPDES Tech Report 2025.pdf
Hash	7DA220823E77868EA54DCEF756647720D62B84186A71CC1B5AACF8B541545970
MIME-Type	application/pdf

5) Affected Landowners Map

[File Properties]

File Name	LANDMP_Attachment A-2-1 Landowner Map WQ0004013000.pdf
Hash	2BDCC77CB20F0900756031845DB77671047CA46310DCEDDC218F0293AF3E3933
MIME-Type	application/pdf

6) Landowners Cross Reference List

[File Properties]

File Name	LANDCRL_Attachment A-2-2 Landowner List WQ0004013000.pdf
Hash	12C0DE1AAA42BFCD284E021A9C0F84179EB097B87F7F3DB0ABEA41469E490EF8
MIME-Type	application/pdf

7) Landowner Avery Template

[File Properties]

File Name	LANDAT_Attachment A-2-3 Landowner Mailing Labels WQ0004013000.docx
Hash	67B2363B3EF8A080521E480AB8F689F9E78EB849C8E547D891CFDFE503336BB1
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

## 8) Flow Diagram

## [File Properties]

File Name	FLDIA_Figure 1 Polymers Wastewater Flow Diagram WQ0004013000.pdf
Hash	D7023F9FB166A80070283C4BFA698D0753DB5626533B2A4695974D05CBCE728A
MIME-Type	application/pdf

## [File Properties]

File Name	FLDIA_Figure 2 Olefins Wastewater Flow Diagram WQ0004013000.pdf
Hash	FEAE95C2F068C49D2C3FDAF9DA374FA0DC49B3D037B7F00C2EEBAB481F6FF5CC
MIME-Type	application/pdf

## [File Properties]

File Name	FLDIA_Figure 3 Acetyls Wastewater Flow Diagram WQ0004013000.pdf
Hash	986420B3FA500AB8CBCF36B0F275512F0AB2469645A02873AE056882CD3F36BF
MIME-Type	application/pdf

## 9) Site Drawing

## [File Properties]

File Name	SITEDR_Attachment T-2 Facility Map WWQ0004013000.pdf
Hash	5C3BEE6DD2576592185B726389CADE1A4DA5453271E098B9BAFBD03275BE2405
MIME-Type	application/pdf

## 10) Original Photographs

## [File Properties]

File Name	ORIGPH_Attachment A-3 Outfall Photos WQ0004013000 2025.pdf
Hash	43CFC720834BFA997041DB4FE46F8B4CC08339A63DB06147AF129CEF3427BD54
MIME-Type	application/pdf

## 11) Design Calculations

## [File Properties]

File Name	DES_CAL_Table 3 EQLP Outfall Wastewaters WQ0004013000.pdf
Hash	3A11BDB8E544A3C16736CEAD53B1D256411D3560C891F7A1B902BDD08FB64738
MIME-Type	application/pdf

## 12) Solids Management Plan

## [File Properties]

File Name	SMP_Attachment T-4 Sewage Sludge
-----------	----------------------------------

## Management Plan 2025 WQ0004013000.pdf

Hash D9EF4E02F3B783342F52B1467AED2CCAB6CBE24F93317F9E83B7999971680E47  
MIME-Type application/pdf

## 13) Water Balance

## [File Properties]

File Name WB\_Table 3 EQLP Outfall Wastewaters  
WQ0004013000.pdf

Hash 3A11BDB8E544A3C16736CEAD53B1D256411D3560C891F7A1B902BDD08FB64738  
MIME-Type application/pdf

## 14) Other Attachments

## [File Properties]

File Name OTHER\_Attachment T-5 EQLP Treatment  
Chemicals WQ0004013000.pdf

Hash 5E075332F899CFFD830EACB4D7E7732DE969BED198F2158AB558F42E3F14192F  
MIME-Type application/pdf

## [File Properties]

File Name OTHER\_WQ0004013000 TPDES Application  
2025 TOC.pdf

Hash 669DD2932CFBB833F7D78B7B2572AE58494437F64EF70741C5B728A0597A89E4  
MIME-Type application/pdf

## [File Properties]

File Name OTHER\_Attachment T-1 Facility Description  
2025 WQ0004013000.pdf

Hash 784D178325B6A4AC2EA5E47E08B3900945B2C06B4F043D4E619961E8A0A1AF7F  
MIME-Type application/pdf

## [File Properties]

File Name OTHER\_Attachment T-3 Amendment Requests  
2025 WQ0004013000.pdf

Hash DE9B44DED59E0F1B2CF8B684DA347FD91367AAA3266CF735506A83421DC811D1  
MIME-Type application/pdf

## Certification

I certify that I am authorized under 30 Texas Administrative Code 305.44 to sign this document and can provide documentation in proof of such authorization upon request.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and

imprisonment for knowing violations.

1. I am Mark R Bookmyer, the owner of the STEERS account ER071191.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0004013000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Mark R Bookmyer OWNER

Customer Number:	CN600124705
Legal Name:	Equistar Chemicals, LP
Account Number:	ER071191
Signature IP Address:	12.226.105.69
Signature Date:	2025-03-20
Signature Hash:	D40602A54D73B4E6497FA241B64CC6B7664E12C813AF43D5DC37C3AD108FD95F
Form Hash Code at time of Signature:	DA0440C014C223AE3A4723F94AAB431FA4D8396FDD327922637FD198B4238EB6

## Certification

I certify that I am authorized under 30 Texas Administrative Code 305.44 to sign this document and can provide documentation in proof of such authorization upon request.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

1. I am Mark R Bookmyer, the owner of the STEERS account ER071191.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my

knowledge.

7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0004013000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Mark R Bookmyer OWNER

Customer Number:	CN603674862
Legal Name:	LyondellBasell Acetyls, LLC
Account Number:	ER071191
Signature IP Address:	12.226.105.69
Signature Date:	2025-03-20
Signature Hash:	D40602A54D73B4E6497FA241B64CC6B7664E12C813AF43D5DC37C3AD108FD95F
Form Hash Code at time of Signature:	DA0440C014C223AE3A4723F94AAB431FA4D8396FDD327922637FD198B4238EB6

## Fee Payment

Transaction by:	The application fee payment transaction was made by ER042194/Andrea Peters
Paid by:	The application fee was paid by ANDREA PETERS
Fee Amount:	\$2000.00
Paid Date:	The application fee was paid on 2025-03-20
Transaction/Voucher number:	The transaction number is 582EA000660324 and the voucher number is 758539

## Submission

Reference Number:	The application reference number is 753662
Submitted by:	The application was submitted by ER071191/ Mark R Bookmyer
Submitted Timestamp:	The application was submitted on 2025-03-20 at 15:26:24 CDT
Submitted From:	The application was submitted from IP address 12.226.105.69
Confirmation Number:	The confirmation number is 640462
Steers Version:	The STEERS version is 6.88
Permit Number:	The permit number is WQ0004013000

## Additional Information

Application Creator: This account was created by Andrea Peters

**Equistar Chemicals La Porte Complex**  
**TPDES Permit No. WQ0004013000 Application 2025**

**Application Contents**

- Administrative Report 1.0
- Administrative Report 1.1
  
- Technical Report 1.0
  - Worksheet 1 - EPA Categorical Effluent Guidelines
  - Worksheet 2 - Outfall Analyses
  - Worksheet 4 - Receiving Waters
  - Worksheet 5 - Sewage Sludge Management and Disposal

**Attachments**

Cross-reference to  
Application Item

SPIF-1	Supplemental Permit Information Form (SPIF)	
SPIF-2	USGS Map	SPIF-8
SPIF-3	Structures Older Than 50 Years	SPIF-9
PLS-1	Plain Language Summary	AR1.0-9.f
PIP-1	Public Involvement Plan	AR1.0-9.g
A-1	USGS Map	AR1.0-11.b
A-2	Adjacent Landowners	AR1.1
A-2-1	Landowner Map	AR1.1-1.a
A-2-2	Landowner List	AR1.1-1.c
A-2-3	Landowner Mailing Labels (Word file)	AR1.1-1.b
A-3	Outfall Photos	AR1.1-2
T-1	Facility Description	TR-1.b, 2.a, 6
	Table 1. Raw Materials, Intermediates, and Products	TR-1.c
	Table 2. Wastewater Sources and Additions by Outfall	TR-4, 13
	Table 3. Wastewater Sources and Flows by Outfall	TR-4
	Figure 1. Polymers Wastewater Flow Diagram	TR -2.b
	Figure 2. Olefins Wastewater Flow Diagram	TR -2.b
	Figure 3. Acetyls Wastewater Flow Diagram	TR -2.b
T-2	Facility Map	TR-1.d
T-3	Amendment Requests	TR-13
T-4	Domestic Sewage Sludge Management Plan	W5-1, 2.f
T-5	Treatment Chemicals and SDSs	TR-5.b

**Reference Key**

- AR1.0 Administrative Report 1.0
- AR1.1 Administrative Report 1.1
- SPIF Supplemental Permit Information Form
- TR Technical Report
- W Worksheet #

# INDUSTRIAL WASTEWATER PERMIT APPLICATION

## ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

### Item 1. Affected Landowner Information (Instructions, Page 35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
  - ☒ The facility site boundaries within the applicant's property boundaries.
  - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
  - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
  - ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
  - ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
  - ☒ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
  - ☐ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
  - ☐ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
  - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
  - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.
- Attachment: A-2-1 Landowner Map
- b. ☒ that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).
- c. Check this box to confirm a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided. Provide the source of the landowners' names and mailing addresses: Harris County Appraisal District (see Attachment A-2-2 Landowner List)



- e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

☐ Yes ☒ No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s): N/A

## Item 2. Original Photographs (Instructions, Page 37)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site.
- ☒ A plot plan or map showing the location and direction of each photograph.

Attachment: A-3 Outfall Photos



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**SUMMARY OF APPLICATION IN PLAIN  
LANGUAGE FOR TPDES OR TLAP PERMIT  
APPLICATIONS****Summary of Application (in plain language) Template and  
Instructions for Texas Pollutant Discharge Elimination System  
(TPDES) and Texas Land Application (TLAP) Permit  
Applications**

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package.** For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS  
INDUSTRIAL WASTEWATER/STORMWATER**

*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.*

Equistar Chemicals, LP (CN600124705) and LyondellBasell Acetyls, LLC (CN603674862) operate the Equistar Chemicals La Porte Complex (RN100210319), which manufactures ethylene, propylene, and acetyls. INEOS, another company located on-site, manufactures polyalphaolefins. The facility is located at 1515 Miller Cut-Off Road, north of the City of La Porte in Harris County, Texas 77520. The application is for renewal and amendment of TPDES Permit No. WQ0004013000.

Outfalls 001, 003, 004, and 007 are the main wastewater outfalls that are authorized to discharge process wastewater, utility wastewaters, domestic wastewater, and stormwater. Internal Outfalls 101, 104, 207, 307, and 407 are authorized to discharge treated domestic wastewater. Outfall 105 is authorized to discharge stormwater, utility wastewaters, and domestic wastewater. Outfalls 005, 006, and 008 discharge primarily stormwater, but may include utility and other miscellaneous wastewaters. Outfalls 204, 009, and 010 are potentially future outfalls.

Wastewater discharges are expected to contain biochemical/chemical oxygen demand, suspended solids, total organic carbon, oil and grease, and metals. Other constituents for each outfall are listed in Worksheet 2 of the application.

Permit amendments included in the application are: 1) include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010; 2) include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007; 3) increase daily average flow limit to 2.0 MGD for Outfall 004; 4) increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007; 5) add wastewater sources to several outfalls; 6) remove daily average and daily maximum mass limits for aluminum from Outfall 001; 7) remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001; 8) remove daily maximum concentration limits for nonylphenol from Outfall 003; 9) remove daily average concentration limits for aluminum and zinc for Outfall 003; 10) remove daily average and daily maximum concentration limits for cyanide from Outfall 005; 11) remove daily average and daily maximum temperature limits for Outfall 007; 12) increase or remove the daily average limit for dissolved oxygen from Outfall 007; 13) remove daily average and daily maximum mass limits for ammonia from Outfall 007; 14) remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008; 15) change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007; and 16) authorize ultraviolet disinfection of domestic wastewaters.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP****AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES**

*El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.*

Equistar Chemicals, LP (CN600124705) y LyondellBasell Acetyls, LLC (CN603674862) operan el Equistar Chemicals La Porte Comple (RN100210319), que fabrica etileno, propileno y acetilos. INEOS, otra empresa ubicada en el mismo lugar, fabrica polialfaolefinas. La instalación está ubicada en 1515 Miller Cut-Off Road, al norte de la ciudad de La Porte, en el Condado de Harris, Texas 77520. La solicitud es para la renovación y modificación del permiso TPDES no. WQ0004013000.

Los Outfalls 001, 003, 004 y 007 son los principales emisarios de aguas residuales autorizados para verter aguas residuales de proceso, aguas residuales de servicios públicos, aguas residuales domésticas y aguas pluviales. Los Outfalls internos 101, 104, 207, 307 y 407 están autorizados para verter aguas residuales domésticas tratadas. El Outfall 105 está autorizado a descargar aguas pluviales, aguas residuales de servicios públicos y aguas residuales domésticas. Los Outfalls 005, 006 y 008 descargan principalmente aguas pluviales, pero pueden incluir aguas residuales de servicios públicos y otras aguas residuales diversas. Los Outfalls 204, 009 y 010 son potencialmente futuros emisarios.

Se espera que las descargas de aguas residuales contengan demanda bioquímica/química de oxígeno, sólidos en suspensión, carbono orgánico total, aceite y grasa, y metales. Otros componentes de cada Outfall se enumeran en la Worksheet 2 de la solicitud.

Las modificaciones del permiso incluidas en la solicitud son: 1) incluir opciones para que el Outfall 010 incluya flujos del Outfalls 004, 005 y/o 007 y eliminar los límites de cloro del Outfall 010; 2) incluir aguas residuales de la instalación adyacente de gas de síntesis en el Outfall 004 y el Outfall 007; 3) aumentar el límite de flujo medio diario a 2.0 MGD para el Outfall 004; 4) aumentar el límite de flujo medio diario a 1.6 MGD y el límite de flujo máximo diario a 2.0 MGD para el Outfall 007; 5) añadir fuentes de aguas residuales a varios Outfalls; 6) eliminar los límites de masa media diaria y máxima diaria para el aluminio del Outfall 001; 7) eliminar los límites de masa y concentración media diaria y máxima diaria para el nonilfenol del Outfall 001; 8) eliminar los límites de concentración máxima diaria para el nonilfenol del Outfall 003; 9) eliminar los límites de concentración media diaria para el aluminio y el zinc del Outfall 003; 10) eliminar los límites de concentración máxima y media diaria de cianuro del Outfall 005; 11) eliminar los límites de temperatura máxima y media diaria del Outfall 007; 12) aumentar o eliminar el límite de concentración media diaria de oxígeno disuelto del Outfall 007; 13) eliminar los límites de masa máxima y media diaria de amoníaco del Outfall 007; 14) eliminar los límites máximos de concentración diaria de aluminio y cianuro y la monitorización del zinc del Outfall 008; 15) cambiar la frecuencia de monitorización del hexaclorobenceno a anual para los Outfalls 001, 004 y 007; y 16) autorizar la desinfección ultravioleta de las aguas residuales domésticas.



Texas Commission on Environmental Quality

## Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

### Section 1. Preliminary Screening

New Permit or Registration Application

New Activity - modification, registration, amendment, facility, etc. (see instructions)

**If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.**

### Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

Located within any of the following geographical locations:

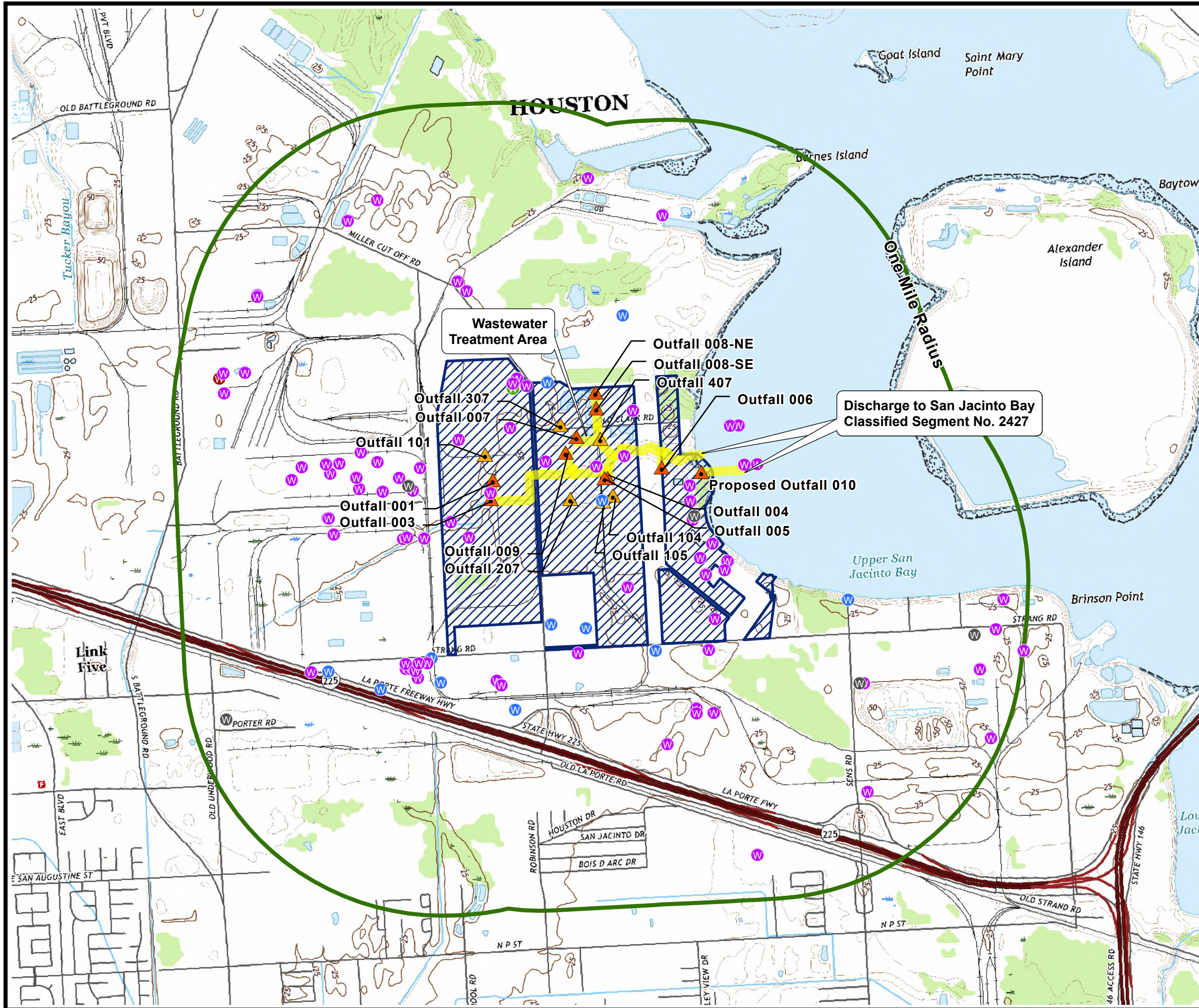
- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary.  
Stop after Section 2 and submit the form.**

Public Involvement Plan not applicable to this application. Provide **brief** explanation.



J:\Prj\Equistar\La Porte\TPDES 2025\EL LaPorte GIS.aprx



## LEGEND

Equistar/LyondellBasell Property Boundary

One Mile Radius

External Outfalls

Internal Outfalls

Discharge Route

### TWDB Wells

Domestic / Public Supply

Environmental Soil Boring

Industrial / Monitor

Test Well

Plugged or Destroyed / Unused



Sources:  
1. TWDB Wells - Texas Water Development Board GIS Data  
2. USGS Topographic Quadrangles 7.5 Minute Series:  
La Porte, TX 2022

0 1,000 2,000  
FEET

1" = 2,000 FEET  
1:24,000

**LYONDELLBASELL  
LA PORTE COMPLEX  
WQ0004013000**

**ATTACHMENT A-1  
USGS MAP**

DRAWN BY:	S WILSON	SCALE:	TPDES 2025
CHECKED BY:	D KOCUREK	AS NOTED	USGS
APPROVED BY:	D KOCUREK	DATE PRINTED:	
DATE:	February 2025	2/21/2025	



www.SiteMapLLC.com  
Ph. 409-998-1834  
Ph. 409-738-2133





## Legend

- Equistar/LyondellBasell Property Boundary
- Adjacent Landowners
- External Outfalls
- Internal Outfalls
- Surface Water
- In-Plant Collection System, includes Underground Piping
- Discharge Diffuser
- Stream Markers

Parcel Source:  
Harris County Appraisal District, January 2025



0 600 1,200  
FEET  
1" = 1,200 FEET  
1:14,400



LYONDELLBASELL  
LA PORTE COMPLEX  
WQ0004013000

ATTACHMENT A-2-1  
ADJACENT LANDOWNER MAP

DRAWN BY:	S WILSON
APPROVED BY:	D KOCUREK
PROJECT NO:	TPDES 2025
FILE NO.	Adjacent Landowner
DATE:	FEBRUARY 2025

**ATTACHMENT A-2-2**  
**Adjacent Landowners**  
**Equistar Chemicals La Porte Complex (WQ0004013000)**

MAP ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
1	AIR PRODUCTS INCORPORATED	7201 HAMILTON BLVD	ALLENTOWN	PA	18195-9642
2	AIRGAS USA LLC	110 W 7TH ST STE 1400	TULSA	OK	74119-1077
3	BARNES RICHARD & BARBARA	2101 PAINTBRUSH AVE	LEAGUE CITY	TX	77573-7278
4	BATTLEGROUND OIL SPECIALTY	PO BOX 4372	HOUSTON	TX	77210-4372
5	CENTERPOINT ENERGY HOU ELE	PO BOX 1475	HOUSTON	TX	77251-1475
6	COASTAL INDUSTRIAL WATER	1200 SMITH ST STE 2260	HOUSTON	TX	77002-4500
7	COUNTY OF HARRIS	PO BOX 1525	HOUSTON	TX	77251-1525
8	EXXON PIPELINE	PO BOX 53	HOUSTON	TX	77001-0053
9	GREIF BROTHERS CORPORATION	425 WINTER RD	DELAWARE	OH	43015-8903
10	LA PORTE LOGISTICS LLC	109 N POST OAK LANE STE 600	HOUSTON	TX	77024-7753
11	LA PORTE METHANOL CO LP	PO BOX 3646	HOUSTON	TX	77253-3646
12	LA PORTE RAIL & TERMINAL LLC	12501 STRANG RD	LA PORTE	TX	77571-8704
13	MESSER LLC	200 SOMERSET CORPORATE BLVD STE 6000	BRIDGEWATER	NJ	08807-2862
14	MINITUBISHI CHEMICAL AMERICA INC	12220 STRANGE RD	LA PORTE	TX	77571
15	MOBLEY OFFICES HOUSTON LP	PO BOX 859	LEAGUE CITY	TX	77574-0859
16	OXY VINYL LP	PO BOX 27570	HOUSTON	TX	77227-7570
17	PORT OF HOUSTON AUTHORITY	111 EAST LOOP N	HOUSTON	TX	77029-4326
18	SCT PROPERTIES LTD	7402 WALLISVILLE RD	HOUSTON	TX	77020-3556
19	SJI GROUP LLC	302 E VIEJO DR	FRIENDSWOOD	TX	77546-5547
20	STRANG ROAD INDUSTRIAL	3521 UNIVERSITY BLVD	HOUSTON	TX	77005
21	TEJAS GAS CORP	500 DALLAS ST STE 100	HOUSTON	TX	77002-4804
22	TREP STRANG OWNER LLC	3657 BRIARPARK DR STE 300	HOUSTON	TX	77042-5266
23	VALLEY LA PORTE LLC	PO BOX 18	COMBES	TX	78535-0018

2/21/25



AIR PRODUCTS INCORPORATED  
7201 HAMILTON BLVD  
ALLENTOWN PA 18195-9642

AIRGAS USA LLC  
110 W 7TH ST STE 1400  
TULSA OK 74119-1077

BARNES RICHARD & BARBARA  
2101 PAINTBRUSH AVE  
LEAGUE CITY TX 77573-7278

BATTLEGROUND OIL SPECIALTY  
PO BOX 4372  
HOUSTON TX 77210-4372

CENTERPOINT ENERGY HOU ELE  
PO BOX 1475  
HOUSTON TX 77251-1475

COASTAL INDUSTRIAL WATER  
1200 SMITH ST STE 2260  
HOUSTON TX 77002-4500

COUNTY OF HARRIS  
PO BOX 1525  
HOUSTON TX 77251-1525

EXXON PIPELINE  
PO BOX 53  
HOUSTON TX 77001-0053

GREIF BROTHERS CORPORATION  
425 WINTER RD  
DELAWARE OH 43015-8903

LA PORTE LOGISTICS LLC  
109 N POST OAK LANE STE 600  
HOUSTON TX 77024-7753

LA PORTE METHANOL CO LP  
PO BOX 3646  
HOUSTON TX 77253-3646

LA PORTE RAIL & TERMINAL LLC  
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STE 6000  
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INC  
12220 STRANGE RD  
LA PORTE TX 77571

MOBLEY OFFICES HOUSTON LP  
PO BOX 859  
LEAGUE CITY TX 77574-0859

OXY VINYLs LP  
PO BOX 27570  
HOUSTON TX 77227-7570

PORT OF HOUSTON AUTHORITY  
111 EAST LOOP N  
HOUSTON TX 77029-4326

SCT PROPERTIES LTD  
7402 WALLISVILLE RD  
HOUSTON TX 77020-3556

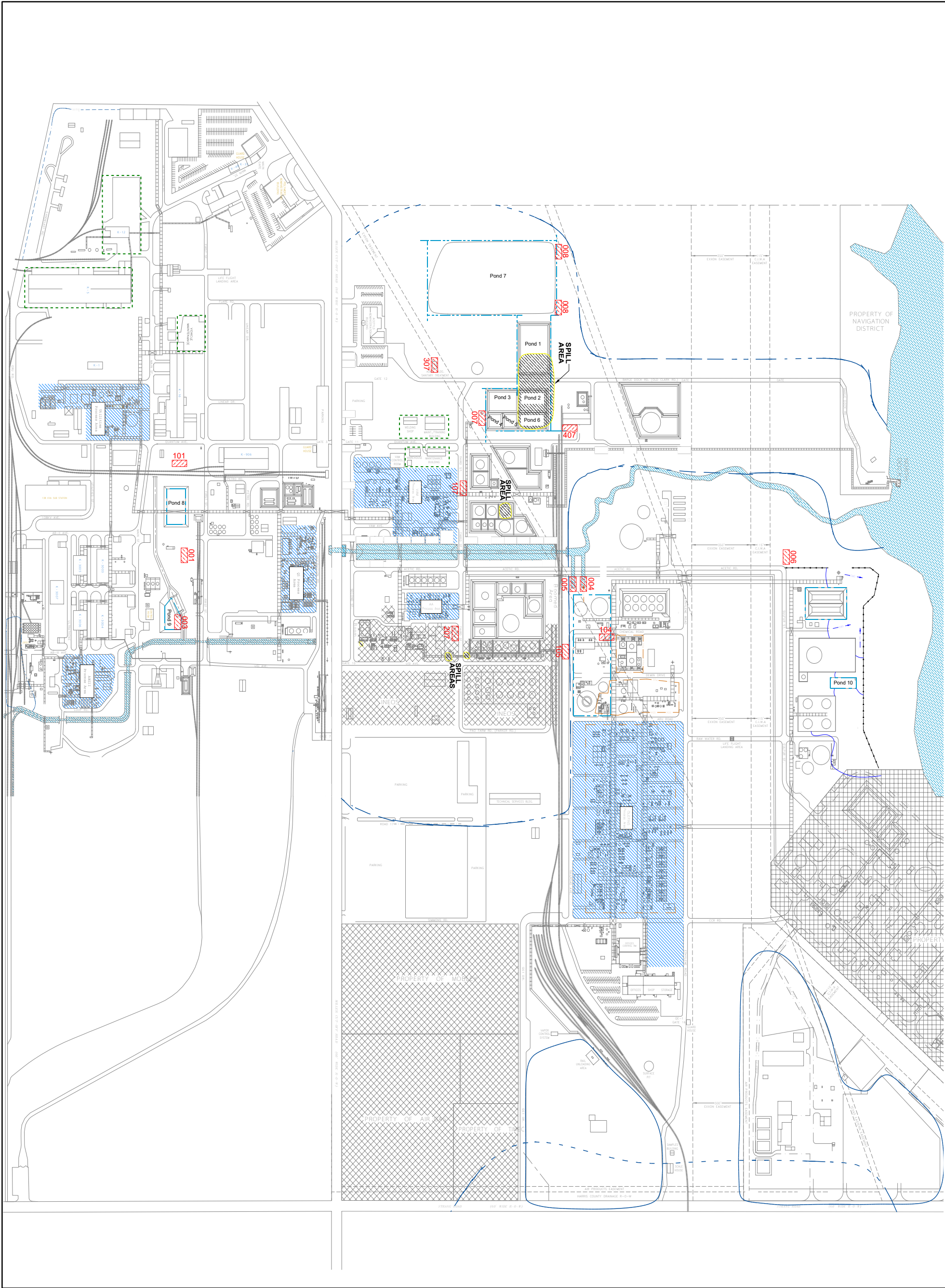
SJI GROUP LLC  
302 E VIEJO DR  
FRIENDSWOOD TX 77546-5547

STRANG ROAD INDUSTRIAL  
3521 UNIVERSITY BLVD  
HOUSTON TX 77005

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HOUSTON TX 77002-4804

TREP STRANG OWNER LLC  
3657 BRIARPARK DR STE 300  
HOUSTON TX 77042-5266

VALLEY LA PORTE LLC  
PO BOX 18  
COMBES TX 78535-0018



Outfall Locations

Process Areas

Wastewater Treatment

Maintenance, materials-handling, and Waste-disposal Areas

Spill Locations

Drainage Area Limits



0 125 250 500 Feet

**ATTACHMENT T-2**  
Facility Map  
Equistar Chemicals, LP  
LaPorte Complex, LaPorte, TX

**Brown AND Caldwell**

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)**

**FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL  
TPDES WASTEWATER PERMIT APPLICATIONS**

**TCEQ USE ONLY:**

Application type: \_\_\_\_Renewal \_\_\_\_Major Amendment \_\_\_\_Minor Amendment \_\_\_\_New

County: \_\_\_\_\_ Segment Number: \_\_\_\_\_

Admin Complete Date: \_\_\_\_\_

Agency Receiving SPIF:

\_\_\_\_ Texas Historical Commission

\_\_\_\_ U.S. Fish and Wildlife

\_\_\_\_ Texas Parks and Wildlife Department

\_\_\_\_ U.S. Army Corps of Engineers

**This form applies to TPDES permit applications only.** (Instructions, Page 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

**Do not refer to your response to any item in the permit application form.** Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at [WQ-ARPTeam@tceq.texas.gov](mailto:WQ-ARPTeam@tceq.texas.gov) or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Equistar Chemicals, LP and LyondellBasell Acetyls, LLC
2. Permit No. WQ00 04013000 EPA ID No. TX 0119792
3. Address of the project (or a location description that includes street/highway, city/vicinity, and county):

1515 Miller Cut-Off Road, north of the City of La Porte, Harris County, Texas 77571

4. Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Ms.

First and Last Name: Andrea Peters

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: Environmental Engineer

Mailing Address: P.O. Drawer D

City, State, Zip Code: La Porte, TX 77536

Phone No.: 713-767-5704 Ext.: N/A Fax No.: N/A

E-mail Address: andrea.peters@lyondellbasell.com

5. List the county in which the facility is located: Harris
6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

N/A

7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

Via Outfalls 001, 003, 004, 005, 006, 007, 008, and 009 to an unnamed ditch, thence to an unnamed ditch (tidal), thence to San Jacinto Bay; and via Outfall 010 directly to San Jacinto Bay in Segment No. 2427 of the Bays and Estuaries

8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

**Attachment:** SPIF-2 USGS Map

9. Provide original photographs of any structures 50 years or older on the property.

**Attachment:** SPIF-3 Structures Older Than 50 Years

10. Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future

- ☐ Sealing caves, fractures, sinkholes, other karst features
- ☐ Disturbance of vegetation or wetlands

11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

Outfall 010 is a potential future outfall that is currently authorized by TPDES Permit No. WQ0004013000. Construction of Outfall 010 would include a discharge pipe with diffuser into San Jacinto Bay.

12. Describe existing disturbances, vegetation, and land use:

Wastewater treatment and outfalls are at an existing chemical manufacturing facility.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

13. List construction dates of all buildings and structures on the property:

Buildings and structures were constructed after 1959.

14. Provide a brief history of the property, and name of the architect/builder, if known.

Some structures from 1959 and early 1960s still exist. No information on the architect/builder could be located.



**Attachment SPIF-3  
Structures Older Than 50 Years**



**Polymers Administration Building  
1958**



**Polymers Medical Building**

**Attachment SPIF-3  
Structures Older Than 50 Years**

**1958**



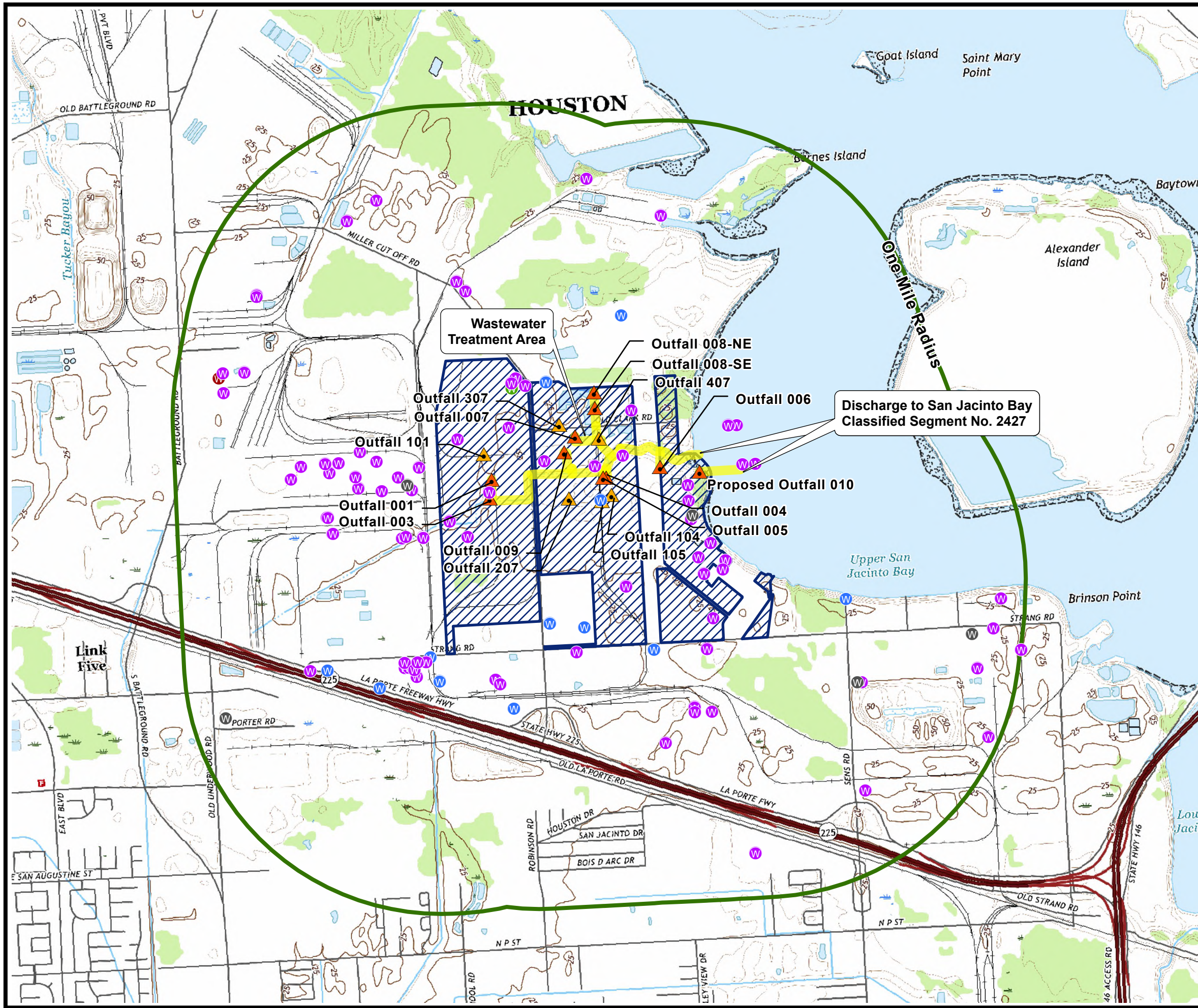
**Polymers Laboratory Building  
1958**



**Polymers Maintenance Building  
1958**



J:\Prj\Equistar\La Porte\TPDES 2025\EL LaPorte GIS.aprx



## LEGEND

- Equistar/LyondellBasell Property Boundary
- One Mile Radius
- External Outfalls
- Internal Outfalls
- Discharge Route
- TWDB Wells**
  - Domestic / Public Supply
  - Environmental Soil Boring
  - Industrial / Monitor
  - Test Well
  - Plugged or Destroyed / Unused



Sources:  
1. TWDB Wells - Texas Water Development Board GIS Data  
2. USGS Topographic Quadrangles 7.5 Minute Series:  
La Porte, TX 2022

0 1,000 2,000  
FEET  
1" = 2,000 FEET  
1:24,000

LYONDELLBASELL  
LA PORTE COMPLEX  
WQ0004013000

ATTACHMENT SPIF-2  
USGS MAP

DRAWN BY:	S WILSON	SCALE:	TPDES 2025
CHECKED BY:	D KOCUREK	AS NOTED	USGS
APPROVED BY:	D KOCUREK	DATE PRINTED:	
DATE:	February 2025	2/21/2025	



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Ph. 409-998-1834  
Ph. 409-738-2133





# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## INDUSTRIAL WASTEWATER PERMIT APPLICATION

### TECHNICAL REPORT 1.0

The following information is **required** for all applications for a TLAP or an individual TPDES discharge permit.

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)<sup>1</sup> available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

**NOTE:** This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

### Item 1. Facility/Site Information (Instructions, Page 39)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

The Equistar Chemicals La Porte Complex consists of three operating units: (1) Olefins, (2) Polymers, and (3) Acetyls. The facility produces ethylene, propylene, low-density polyethylene, linear low-density polyethylene, high-density polyethylene, acetic acid, and vinyl acetate monomer. Another company located on-site, INEOS, operates a polyalphaolefins unit that makes synthetic oil. The SIC codes applicable to the site are 2821 and 2869. The NAICS codes applicable to the site are 325211 and 325199.

- b. Describe all wastewater-generating processes at the facility.

See Attachment T-1 Facility Description.

- c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

#### Materials List

Raw Materials	Intermediate Products	Final Products
See Attachment T-1 Facility Description, Table 1 Raw Materials, Intermediates, and Products.		

**Attachment:** Attachment T-1 Facility Description, Table 1 Raw Materials, Intermediates, and Products

<sup>1</sup>

[https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES\\_industrial\\_wastewater\\_steps.html](https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html)

d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

**Attachment:** T-2 Facility Map

e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: N/A

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: Federal Emergency Management Agency

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: N/A

**Attachment:** N/A

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☒ Yes ☐ No ☐ N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☒ No

If **yes**, provide the permit number: The facility will apply for a Dredge and Fill Permit and obtain proper authorization prior to the construction of Outfall 010.

If **no**, provide an approximate date of application submittal to the USACE: N/A

## Item 2. Treatment System (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

See Attachment T-1 Facility Description.

- b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

**Attachment:** T-1 Facility Description, Figure 1 Polymers Wastewater Flow Diagram, Figure 2 Olefins Wastewater Flow Diagram, Figure 3 Acetyls Wastewater Flow Diagram

### Item 3. Impoundments (Instructions, Page 40)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a - 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

**Use Designation:** Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

**Associated Outfall Number:** Provide an outfall number if a discharge occurs or will occur.

**Liner Type:** Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

**Leak Detection System:** If any leak detection systems are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no.

**Groundwater Monitoring Wells and Data:** If groundwater monitoring wells are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no. Attach any existing groundwater monitoring data.

**Dimensions:** Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

**Compliance with 40 CFR Part 257, Subpart D:** If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter **Y** for yes. Otherwise, enter **N** for no.

**Date of Construction:** Enter the date construction of the impoundment commenced (mm/dd/yy).

## Impoundment Information

Parameter	Pond #1 Stormwater	Pond #2 Off-Spec	Pond #3 North Aeration	Pond #4 South Aeration	Pond #5 Settling
Use Designation: (T) (D) (C) or (E)	C	C	T	T	T
Associated Outfall Number	007	007	007	007	007
Liner Type (C) (I) (S) or (A)	S	S	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	Y	N	N	N	N
Groundwater Monitoring Wells, Y/N	Y	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	[1]	[1]	[1]	[1]	[1]
Length (ft)	[3]	184	181	88	88
Width (ft)	[3]	156	117	85	82
Max Depth From Water Surface (ft), Not Including Freeboard	[3]	14.5	9	9	3
Freeboard (ft)	[3]	2	2	2	2
Surface Area (acres)	[3]	0.627	0.485	0.17	0.165
Storage Capacity (gallons)	[3]	2,336,238	1,274,000	230,140	210,800
40 CFR Part 257, Subpart D, Y/N	N	N	N	N	N
Date of Construction [2]	~1978	~1970	~1978	~1970	~1970
[1] Depth to groundwater in the shallow zone is 3 to 10 feet. [2] Date of construction is estimated year unit was put in service. [3] Physical dimensions under review and will be provided when complete.					

Parameter	Pond #6 Equalization	Pond #7 Landfarm	Pond #8 Skim Pond#1	Pond #9 Skim Pond #3	Pond #10 C4 Sump
Use Designation: (T) (D) (C) or (E)	T	T	T	C	C
Associated Outfall Number	007	008	001	003	006
Liner Type (C) (I) (S) or (A)	S	C	C	Concrete	Concrete
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	Y	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	[1]	[1]	[1]	[1]	[1]
Length (ft)	181	680	195	300	154
Width (ft)	90	400	110	200	60
Max Depth From Water Surface (ft), Not Including Freeboard	7	4	8	8	3
Freeboard (ft)	2	2	2	2	2
Surface Area (acres)	0.374	6	0.47	0.4	0.21
Storage Capacity (gallons)	781,740	5,000,000	750,000	800,000	207,000
40 CFR Part 257, Subpart D, Y/N	N	N	N	N	N
Date of Construction**	1970	-	-	-	-
[1] Depth to groundwater in the shallow zone is 3 to 10 feet. [2] Date of construction is estimated year unit was put in service.					

**Attachment:** N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

There are no new or proposed impoundments.

b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

1. Liner data

☐ Yes      ☐ No      ☐ Not yet designed

2. Leak detection system or groundwater monitoring data

☐ Yes      ☐ No      ☐ Not yet designed

3. Groundwater impacts

☐ Yes      ☐ No      ☐ Not yet designed

**NOTE:** Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

**Attachment:** N/A

**For TLAP applications:** Items 3.c – 3.e are **not required**, continue to Item 4.

- c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

**Attachment:** N/A

- d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

**Attachment:** N/A

- e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

**Attachment:** N/A

## Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

**For TLAP applications:** Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

### Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	29.711844	-95.069825
101	29.713287	-95.070275
003	29.710788	-95.069989
004	29.711748	-95.062431
104	29.710751	-95.062124
204	TBD (not yet activated)	
005	29.711729	-95.062629
105	29.710433	-95.062767
006	29.712227	-95.058930
007	29.714110	-95.064348
207	29.710633	-95.064875
307	29.714803	-95.065352

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
407	29.713942	-95.062809
008 (NE location)	29.716576	-95.063026
008 (SE location)	29.715667	-95.063008
009 (not yet activated)	29.713244	-95.065083
010 (estimated, not yet constructed)	29.711889	-95.056389

#### Outfall Location Description

Outfall No.	Location Description <i>[See note below.]</i>
001	At the point the effluent leaves the Parshall Flume and drains south to the unnamed ditch
101	At the discharge from the sanitary waste treatment unit north of the skim ponds #1 and #3
003	On the south side of the property, just after the skim pond
004	Located northwest of the Olefins cooling tower, prior to discharge into the unnamed ditch
104	At the discharge from the Olefins sanitary waste treatment unit adjacent to the Olefins cooling tower prior to entering the effluent ditch
204	At the monitoring point of the cooling tower blowdown flow prior to being routed to either Outfall 004 or Outfall 010 for final discharge
005	Located northwest of the Olefins cooling tower, prior to discharging into the unnamed ditch
105	Located at the diversion sump pump discharge outlet, where the overflow, including excess rainwater, is routed to Outfall 005
006	Located northwest of the flare stack area
007	After the final treatment unit
207	At the discharge from the sanitary waste treatment unit at the INEOS control room prior to entering the effluent ditch
307	At the discharge from the sanitary waste treatment unit at the administration building prior to entering the effluent ditch
407	At the discharge from the sanitary waste treatment unit at Chemical Loading prior to entering the effluent ditch
008	Located in the northeast corner of the landfarm area or in the southeast corner of the landfarm area
009	East of the Acetyls Cooling Tower, prior to discharge into the unnamed ditch
010	Prior to discharge into San Jacinto Bay
<i>Note: Some of the outfall descriptions here have been changed from what is in the TPDES permit, but the outfall physical locations have not been changed.</i>	

#### Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
001-009	Same as location description above
010	To be determined following the design of the outfall pipeline to San Jacinto Bay

**Outfall Flow Information – Permitted and Proposed**

<b>Outfall No.</b>	<b>Permitted Daily Avg Flow (MGD)</b>	<b>Permitted Daily Max Flow (MGD)</b>	<b>Proposed Daily Avg Flow (MGD)</b>	<b>Proposed Daily Max Flow (MGD)</b>	<b>Anticipated Discharge Date (mm/dd/yy)</b>
001	2.6	3.3	2.6	3.3	N/A
101	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	N/A
003	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
004	1.5	2.6	2.0	2.6	At permit reissuance
104	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	N/A
204	0.86	1.1	0.86	1.1	N/A
005	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
105	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
006	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
007	1.22	1.6	1.6	2.0	At permit reissuance
207	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	N/A
307	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	N/A
407	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	Continuous and flow-variable	N/A
008	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
009	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	Intermittent and flow-variable	N/A
010	0.86	1.1	See Attachment T-3 Amendment Requests	See Attachment T-3 Amendment Requests	At permit reissuance



### Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N	Y	Parshall flume / flow meter
101	N	Y	Estimate
003	N	Y	Weir / gauge
004	N	Y	Flow meter
104	N	Y	Estimate
204	TBD	TBD	Estimate
005	N	Y	Weir / gauge
105	N	Y	Weir / gauge
006	N	Y	Weir / gauge
007	N	Y	Parshall flume / flow meter
207	N	Y	Estimate
307	N	Y	Estimate
407	N	Y	Estimate
008	N	Y	Estimate
009	N	Y	Estimate
010	Y	N	To be determined when outfall is designed

### Outfall Discharge – Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	N	Y	N	24	31	12
101	N	Y	N	24	31	12
003	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable
004	N	Y	N	24	31	12
104	N	Y	N	24	31	12
204	N	Y	N	24	31	12
005	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable
105	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable
006	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable
007	N	Y	N	24	31	12
207	N	Y	N	24	31	12
307	N	Y	N	24	31	12
407	N	Y	N	24	31	12
008	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
009	Y	N	N	Intermittent and variable	Intermittent and variable	Intermittent and variable
010	N	Y	N	24	31	12

## Outfall Wastestream Contributions

Outfall No. All outfalls 001 - 010

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
See Attachment T-1 Facility Description, Table 3 Wastewater Sources and Flows by Outfall		

Attachment: N/A

## Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

- ☒ Yes   ☐ No   Use cooling towers that discharge blowdown or other wastestreams  
☒ Yes   ☐ No   Use boilers that discharge blowdown or other wastestreams  
☐ Yes   ☒ No   Discharge once-through cooling water

**NOTE:** If the facility uses or plans to use cooling towers or once-through cooling water, Item 12 is required.

b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: T-5 Treatment Chemicals and SDSs

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

#### Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Polymers Cooling Towers	3	See Attachment T-1 Facility Description, Table 3 Wastewater Sources and Flows by Outfall.	
Polymers Boilers	2		
Olefins Cooling Tower	1		
Olefins Boilers	2		
Acetyls Cooling Towers	2		
Acetyls Boilers	0		

### Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

☒ Yes ☐ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: See Attachment T-1 Facility Description.

### Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

**Domestic Sewage** - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
  - ☒ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
  - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
  - ☐ Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
  - ☒ Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
  - ☐ Facility is a POTW. Complete Worksheet 5.0.
  - ☐ Domestic sewage is not generated on-site.
  - ☒ Other (e.g., portable toilets), specify and Complete Item 7.b: Portable toilets may be used as needed
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

**Domestic Sewage Plant/Hauler Name**

Plant/Hauler Name	Permit/Registration No.
Texas Outhouse	22739
Gulf Coast Authority Washburn Tunnel Facility	WQ0001740000
Other TCEQ authorized haulers / treatment facilities	N/A

**Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)**

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
- ☐ Yes ☒ No
- b. Has the permittee completed or planned for any improvements or construction projects?
- ☐ Yes ☒ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: N/A

**Item 9. Toxicity Testing (Instructions, Page 45)**

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☒ Yes ☐ No

If **yes**, identify the tests and describe their purposes: Regular biomonitoring of Outfalls 001, 004, and 007 is conducted per TPDES Permit No. WQ0004013000.

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** Biomonitoring test results are reported to TCEQ/EPA.

**Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)**

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☐ Yes ☒ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

**Attachment:** N/A

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☐ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

**Attachment:** N/A

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☐ No

If **yes**, **Worksheet 6.0** of this application is required.

## Item 11. Radioactive Materials (Instructions, Page 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

### Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)
N/A	

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☒ Yes ☐ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

### Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)
Radioactive materials are present in equipment and testing devices, which do not contact wastewater. Sources are maintenance testing devices (Cadmium 109), level transmitters (Cesium 137), gas chromatographs (Nickel 63), and process level gauges (Cesium 137 and Americium Beryllium).	N/A
NORM can be present in equipment used to manage gases such as natural gas, ethylene, and propylene. Radium 226 and Radium 228 can be present in the NORM equipment. This equipment may be washed to remove materials such as scale and rust, or for maintenance to be performed off-site. These wastewaters are managed in the wastewater systems of Outfalls 001 and 004.	N/A

## Item 12. Cooling Water (Instructions, Page 46)

a. Does the facility use or propose to use water for cooling purposes?

- ☒ Yes  
☐ No  
☐ Decommissioned: N/A  
☐ To Be Decommissioned: N/A

If **yes**, complete Items 12.b thru 12.f. If **no**, stop here.

If **decommissioned**, provide the date operation ceased and stop here.

If to **be decommissioned**, provide the date operation is anticipated to cease and stop here.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

- ☒ Yes ☐ No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

### Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	N/A
Owner	N/A
Operator	City of Houston, Battleground Water Supply

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

- ☐ No ☒ Yes; PWS No.: TX1010013 (City of Houston), TX1013432 (Battleground Water Supply)

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here.

3. Cooling water is/will be obtained from a reclaimed water source?

- ☐ No ☐ Yes; Auth No.: N/A

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here.

4. Cooling water is/will be obtained from an Independent Supplier

- ☐ No ☐ Yes; AIF: N/A

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed.

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

- ☐ Yes ☐ No

2. At least 25% of the total water withdrawn by the CWIS(s) is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☐ Yes ☐ No. Explanation: N/A

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*.

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

- e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☐ No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☐ No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I – New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I – AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

☐ Track I – AIF greater than 10 MGD

- Attach information required by *40 CFR § 125.86(b)*.

☐ Track II

- Attach information required by 40 CFR § 125.86(c).

**Attachment:** N/A

2. Phase II - Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes      ☐ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

3. Phase III - New facility subject to 40 CFR Part 125, Subpart N

☐ Yes      ☐ No

If **yes**, check the box next to the compliance track selection and provide the requested information.

☐ Track I - Fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I - Not a fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).

☐ Track II - Fixed facility

- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

**Attachment:** N/A



## Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

1. Include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010.
2. Include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007.
3. Increase daily average flow limit to 2.0 MGD for Outfall 004.
4. Increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007.
5. Add wastewater sources to several outfalls.
6. Remove daily average and daily maximum mass limits for aluminum from Outfall 001.
7. Remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001.
8. Remove daily maximum concentration limits for nonylphenol from Outfall 003.
9. Remove daily average concentration limits for aluminum and zinc for Outfall 003.
10. Remove daily average and daily maximum concentration limits for cyanide from Outfall 005.
11. Remove daily average and daily maximum temperature limits for Outfall 007.
12. Decrease or remove the daily average limit for dissolved oxygen from Outfall 007.
13. Remove daily average and daily maximum mass limits for ammonia from Outfall 007.
14. Remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008.
15. Change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007.
16. Authorize ultraviolet disinfection of domestic wastewaters.

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and describe each change individually.

N/A

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and describe each change individually.

N/A

## Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

### CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Mark Bookmyer

Title: Site Manager

Certification provided with online application submittal via TCEO Steers.

# INDUSTRIAL WASTEWATER PERMIT APPLICATION

## WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

### Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

☒ Yes ☐ No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information below.

#### 40 CFR Effluent Guideline

Industry	40 CFR Part
Organic Chemicals, Plastics, and Synthetic Fibers	414

### Item 2. Production/Process Data (Instructions, Page 54)

**NOTE:** For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

#### a. Production Data

Provide appropriate data for effluent guidelines with production-based effluent limitations.

##### Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

#### b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by *40 CFR Part 414, Appendices A and B*.

##### Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
There are multiple outfalls that are subject to OCPSF effluent guidelines at 40 CFR 414, with different production percentages by outfall. See Attachment T-1 Facility Description, Table 3 Wastewater Sources and Flows by Outfall for production percentages by outfall.			

#### c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

N/A

### Item 3. Process/Non-Process Wastewater Flows (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

See Attachment T-1 Facility Description, Table 3 Wastewater Sources and Flows by Outfall.

### Item 4. New Source Determination (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

#### Wastewater Generating Processes Subject to Effluent Guidelines

Process	EPA Guideline Part	EPA Guideline Subpart	Date Process/Construction Commenced
Poly(alpha) Olefins	414	D	1986: A Reactor 1990: B Reactor 2017: C Reactor
Acetic Acid	414	F	1979
Vinyl Acetate Monomer	414	F	1969: A and B Reactors 1969: A Purification 1978: B Purification 1992: C Reactor
Low Density Polyethylene	414	D	1959
High Density Polyethylene	414	D	2020 LB1
Linear Low Density Polyethylene	414	D	1980s, 1996
Ethylene	414	F	1991, 2014

# INDUSTRIAL WASTEWATER PERMIT APPLICATION

## WORKSHEET 2.0: POLLUTANT ANALYSIS

Worksheet 2.0 is **required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

### Item 1. General Testing Requirements (Instructions, Page 55)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 12/16/2024 – 01/30/2025
- b. ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm.  
**Attachment:** See list below.

Contract Laboratories for Outfall Analyses	
Parameters	Laboratory
Acetaldehyde, cyanide, formaldehyde	Eurofins Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Accreditation ID: T104704194-23-46
Bisphenol A, nonylphenol	Eurofins Denver 4955 Yarrow St. Arvada, CO 80002 Accreditation ID: T104704183
Mercury	Eurofins Arkansas 8600 Kanis Rd. Little Rock, AR 72204 Accreditation ID: T104704575
Zirconium	Eurofins St. Louis 13715 Rider Trail North Earth City, MO 63045 Accreditation ID: T104704193
All other analytes	Eurofins Houston 4145 Greenbriar Dr. Stafford, TX 77477 Accreditation ID: T104704215

## Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. Attachment: N/A

### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	12/16-19/2024	12/23-26/2024	12/30/24- 1/1-2/25	1/6-10/2025
BOD (5-day)	<2.14	<3.	<2.4	<2.14
CBOD (5-day)	<3.	<6.	<2.4	<12.
Chemical oxygen demand	56.	19.	58.	29.
Total organic carbon	6.8	7.23	9.49	8.95
Dissolved oxygen	-	-	-	-
Ammonia nitrogen	<0.0508	<0.0508	<0.0508	<0.0508
Total suspended solids	<4.04	6.	<4.	<4.08
Nitrate nitrogen	0.377	0.455	0.27	0.547
Total organic nitrogen	2.63	0.785	8.89	0.845
Total phosphorus	0.966	0.279	0.908	0.523
Oil and grease	<1.57	<1.57	<1.57	<1.57
Total residual chlorine	-	-	-	0.02
Total dissolved solids	1630.	475.	774.	644.
Sulfate	141.	63.4	129.	98.9
Chloride	233.	115.	193.	163.
Fluoride	0.314	0.127	0.211	0.381
Total alkalinity (mg/L as CaCO <sub>3</sub> )	118.	76.	115.	80.4
Temperature (°F)	-	-	-	63.
pH (standard units)	-	-	-	7.5

Table 2 for Outfall No.: **001**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	12/19/24	12/25/24	1/2/25	1/10/25	
Aluminum, total	140.	565.	39.4	180.	2.5
Antimony, total	<1.05	<1.05	<1.05	<1.05	5
Arsenic, total	3.3	2.88	3.13	2.41	0.5
Barium, total	139.	76.7	128.	94.2	3
Beryllium, total	<0.375	<0.375	<0.375	<0.375	0.5
Cadmium, total	<0.258	<0.258	<0.258	<0.258	1
Chromium, total	1.67	3.37	<0.89	1.34	3
Chromium, hexavalent	<2.	<2.	<2.	-	3
Chromium, trivalent	<3.45	<3.45	<3.45	<3.45	N/A
Copper, total	5.77	3.95	4.54	5.8	2
Cyanide, available	6.84	<5.	8.58	<5.	2/10
Lead, total	0.546	1.29	<0.369	0.656	0.5
Mercury, total	0.00161	0.00835	0.000494	0.00196	0.005/0.0005
Nickel, total	2.81	2.27	3.35	2.48	2
Selenium, total	0.779	<0.685	<0.685	<0.685	5
Silver, total	<0.351	<0.351	<0.351	<0.351	0.5
Thallium, total	<0.215	<0.215	<0.215	<0.215	0.5
Zinc, total	52.3	109.	16.1	95.5	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **001**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	12/19/24	12/25/24	1/2/25	1/10/25	
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzene	<0.46	<0.46	<0.46	<0.46	10
Benidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
Bromodichloromethane [Dichlorobromomethane]	8.34	4.94	10.5	5.61	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane [Dibromochloromethane]	2.57	<0.547	1.51	<0.547	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	28.2	15.4	72.1	22.4	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
m-Cresol [3-Methylphenol] [1]	<2.62	<2.62	<2.62	<2.62	10
o-Cresol [2-Methylphenol]	<1.62	<1.62	<1.62	<1.62	10
p-Cresol [4-Methylphenol]	<2.62	<2.62	<2.62	<2.62	10
1,2-Dibromoethane	<0.999	<0.999	<0.999	<0.999	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	<0.738	<0.738	<0.738	10
Dichloromethane [Methylene chloride]	<1.73	<1.73	<1.73	<1.73	20
1,2-Dichloropropane	<0.556	<0.566	<0.556	<0.556	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	<1.27	<1.27	<1.27	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
Di-n-Butyl phthalate	0.692	<0.252	<0.252	<0.252	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2]	<7.52	<7.52	<7.52	<7.52	---
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Ethylene Glycol	<1220.	<1220.	<1220.	<1220.	---
Fluoride	314.	127.	211.	381.	500
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
4,4'-Isopropylidenediphenol (bisphenol A)	<0.922	<1.03	<1.05	<1.	1
Methyl ethyl ketone	<8.28	<8.28	<8.28	<8.28	50
Methyl tert-butyl ether (MTBE)	<1.39	<1.39	<1.39	<1.39	---
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodiethylamine	<1.75	<1.75	<1.75	<1.75	20
N-Nitroso-di-n-butylamine	<1.49	<1.49	<1.49	<1.49	20
Nonylphenol	<1.1	<1.14	<2.5	<2.39	333
Pentachlorobenzene	<1.07	<1.07	<1.07	<1.07	20
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Polychlorinated biphenyls (PCBs) (**)	<0.0655	<0.0657	<0.0657	<0.0652	0.2
Pyridine	<10.	<10.	<10.	<10.	20
1,2,4,5-Tetrachlorobenzene	<1.32	<1.32	<1.32	<1.32	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10
Trichloroethene [Trichloroethylene]	<1.5	<1.5	<1.5	<1.5	10
2,4,5-Trichlorophenol	<2.	<2.	<2.	<2.	50
TTHM (Total trihalomethanes)	39.1	20.3	84.1	28.	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

##### a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

##### b. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**c. *E. coli* (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☒ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**Table 4 for Outfall No.: 001**

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	Monitored at internal Outfall 101.				N/A

TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **001**

Samples are (check one): ☒ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			19-Dec-24				
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.132	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.377	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.029	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.05	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.145	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.000307	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.252	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.2	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0388	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.813	-	-	-	1
Tin, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0004	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00638	-	-	-	30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input checked="" type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: **001**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Acrolein	<11.1	<11.1	<11.1	<11.1	50
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Benzene	<0.46	<0.46	<0.46	<0.46	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane	2.57	<0.547	1.51	<0.547	10
Chloroethane	<1.98	<1.98	<1.98	<1.98	50
2-Chloroethylvinyl ether	<0.753	<0.753	<0.753	<0.753	10
Chloroform	28.2	15.4	72.1	22.4	10
Dichlorobromomethane [Bromodichloromethane]	8.34	4.94	10.5	5.61	10
1,1-Dichloroethane	<0.635	<0.635	<0.635	<0.635	10
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	<0.738	<0.738	<0.738	10
1,2-Dichloropropane	<0.556	<0.566	<0.556	<0.556	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	<1.27	<1.27	<1.27	10
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Methyl bromide [Bromomethane]	<1.42	<1.42	<1.42	<1.42	50
Methyl chloride [Chloromethane]	<2.04	<2.04	<2.04	<2.04	50
Methylene chloride [Dichloromethane]	<1.73	<1.73	<1.73	<1.73	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10
Tetrachloroethylene [Tetrachloroethene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	<0.368	<0.368	<0.368	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	<1.5	<1.5	<1.5	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: 001

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
2-Chlorophenol	<0.649	<0.649	<0.649	<0.649	10
2,4-Dichlorophenol	<0.314	<0.314	<0.314	<0.314	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
4,6-Dinitro-o-cresol	<1.44	<1.44	<1.44	<1.44	50
2,4-Dinitrophenol	-	-	-	<1.61	50
2-Nitrophenol	<1.67	<1.67	<1.67	<1.67	20
4-Nitrophenol	<7.2	<2.36	<2.36	<2.36	50
p-Chloro-m-cresol	<1.57	<1.57	<1.57	<1.57	10
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenol	<0.423	<0.423	<0.423	<0.423	10
2,4,6-Trichlorophenol	<1.42	<1.42	<1.42	<1.42	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: 001

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Acenaphthene	<1.39	<1.39	<1.39	<1.39	10
Acenaphthylene	<1.41	<1.41	<1.41	<1.41	10
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	<2.04	<2.04	<2.04	10
Benzo(ghi)perylene	<2.68	<2.68	<2.68	<2.68	20
Benzo(k)fluoranthene	<5.	<5.	<5.	<5.	5
Bis(2-chloroethoxy)methane	<1.76	<1.76	<1.76	<1.76	10
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-chloroisopropyl)ether	<1.79	<1.79	<1.79	<1.79	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
4-Bromophenyl phenyl ether	<0.256	<0.256	<0.256	<0.256	10
Butylbenzyl phthalate	<0.337	<0.337	<0.337	<0.337	10
2-Chloronaphthalene	<0.462	<0.462	<0.462	<0.462	10
4-Chlorophenyl phenyl ether	<1.28	<1.28	<1.28	<1.28	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
Dibenzo(a,h)anthracene	<0.246	<0.246	<0.246	<0.246	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
Diethyl phthalate	<1.59	<1.59	<1.59	<1.59	10
Dimethyl phthalate	<2.5	<2.5	<2.5	<2.5	10
Di-n-butyl phthalate	0.692	<0.252	<0.252	<0.252	10
2,4-Dinitrotoluene	<1.31	<1.31	<1.31	<1.31	10
2,6-Dinitrotoluene	<1.61	<1.61	<1.61	<1.61	10
Di-n-octyl phthalate	<0.373	<0.373	<0.373	<0.373	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	<1.49	<1.49	<1.49	20
Fluoranthene	-	-	-	<1.59	10
Fluorene	-	-	-	<1.63	10
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
Indeno(1,2,3-cd)pyrene	<2.29	<2.29	<2.29	<2.29	5
Isophorone	<1.64	<1.64	<1.64	<1.64	10
Naphthalene	<2.5	<2.5	<2.5	<2.5	10
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodimethylamine	5.88	<2.02	<2.02	<2.02	50
N-Nitrosodi-n-propylamine	<2.88	<2.88	<2.88	<2.88	20
N-Nitrosodiphenylamine	<1.81	<1.81	<1.81	<1.81	20
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Pyrene	<0.178	<0.178	<0.178	<0.178	10
1,2,4-Trichlorobenzene	<1.61	<1.61	<1.61	<1.61	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: **001**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Aldrin	<0.00113	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.00142	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.00389	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.00299	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.00245	-	-	-	0.05
Chlordane	<0.103	-	-	-	0.2
4,4'-DDT	<0.00379	-	-	-	0.02
4,4'-DDE	<0.00109	-	-	-	0.1
4,4'-DDD	<0.000814	-	-	-	0.1



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.000953	-	-	-	0.02
Endosulfan I (alpha)	<0.00107	-	-	-	0.01
Endosulfan II (beta)	<0.00122	-	-	-	0.02
Endosulfan sulfate	<0.00112	-	-	-	0.1
Endrin	<0.00156	-	-	-	0.02
Endrin aldehyde	<0.00118	-	-	-	0.1
Heptachlor	<0.00446	-	-	-	0.01
Heptachlor epoxide	<0.00134	-	-	-	0.01
PCB 1242	<0.0521	<0.0523	<0.0523	<0.0519	0.2
PCB 1254	<0.0655	<0.0657	<0.0657	<0.0652	0.2
PCB 1221	<0.0521	<0.0523	<0.0523	<0.0519	0.2
PCB 1232	<0.0521	<0.0523	<0.0523	<0.0519	0.2
PCB 1248	<0.0521	<0.0523	<0.0523	<0.0519	0.2
PCB 1260	<0.0655	<0.0657	<0.0657	<0.0652	0.2
PCB 1016	<0.0521	<0.0523	<0.0523	<0.0519	0.2
Toxaphene	<0.0769	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **001**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Vanadium, total	7440-62-2	4.46	5.	3.91	3.49	200.8
Acetaldehyde	75-07-0	31.7	-	-	-	8315A
Vinyl acetate	108-05-4	<2.14	-	-	-	624.1 [1]
Styrene	100-42-5	<0.619	<0.619	<0.619	<0.619	624.1 [1]
o-Xylene	95-47-6	<0.502	-	-	-	624.1
m/p-Xylene	108-38-3 106-42-3	<1.24	-	-	-	624.1
[1] Lab is accredited for 8260.						

## Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** N/A

### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 003

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	12/25/24			
BOD (5-day)	-			
CBOD (5-day)	-			
Chemical oxygen demand	77.			
Total organic carbon	4.64			
Dissolved oxygen	-			
Ammonia nitrogen	<0.0508			
Total suspended solids	117.			
Nitrate nitrogen	-			
Total organic nitrogen	0.134			
Total phosphorus	0.216			
Oil and grease	1.9			
Total residual chlorine	-			
Total dissolved solids	162.			
Sulfate	37.9			
Chloride	29.4			
Fluoride	0.23			
Total alkalinity (mg/L as CaCO <sub>3</sub> )	66.9			
Temperature (°F)	-			
pH (standard units)	-			

Table 2 for Outfall No.: **003**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	12/25/24				
Aluminum, total	2500.	-	-	-	2.5
Antimony, total	<1.05	-	-	-	5
Arsenic, total	2.41	-	-	-	0.5
Barium, total	67.7	-	-	-	3
Beryllium, total	<0.375	-	-	-	0.5
Cadmium, total	0.545	-	-	-	1
Chromium, total	10.6	-	-	-	3
Chromium, hexavalent	<2.	-	-	-	3
Chromium, trivalent	<3.45	-	-	-	N/A
Copper, total	11.4	-	-	-	2
Cyanide, available	<5.	-	-	-	2/10
Lead, total	6.66	-	-	-	0.5
Mercury, total	0.0306	-	-	-	0.005/0.0005
Nickel, total	6.1	-	-	-	2
Selenium, total	<0.685	-	-	-	5
Silver, total	<0.351	-	-	-	0.5
Thallium, total	<0.215	-	-	-	0.5
Zinc, total	257.	-	-	-	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **003**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	12/25/24				
Acrylonitrile	<14.3	-	-	-	50
Anthracene	<1.5	-	-	-	10
Benzene	<0.46	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
Bromodichloromethane [Dichlorobromomethane]	<0.552	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane [Dibromochloromethane]	<0.547	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	11.3	-	-	-	10
Chrysene	<0.222	-	-	-	5
m-Cresol [3-Methylphenol] [1]	<2.62	-	-	-	10
o-Cresol [2-Methylphenol]	<1.62	-	-	-	10
p-Cresol [4-Methylphenol]	<2.62	-	-	-	10
1,2-Dibromoethane	<0.999	-	-	-	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	-	-	-	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	-	-	-	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	-	-	-	10
Dichloromethane [Methylene chloride]	<1.73	-	-	-	20
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
Di-n-Butyl phthalate	<0.252	-	-	-	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2]	<7.52	-	-	-	---
Ethylbenzene	<0.385	-	-	-	10
Ethylene Glycol	<1220.	-	-	-	---
Fluoride	230.	-	-	-	500
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
4,4'-Isopropylidenediphenol (bisphenol A)	<1.02	-	-	-	1
Methyl ethyl ketone	<8.28	-	-	-	50
Methyl tert-butyl ether (MTBE)	<1.39	-	-	-	---
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodiethylamine	<1.75	-	-	-	20
N-Nitroso-di-n-butylamine	<1.49	-	-	-	20
Nonylphenol	<1.13	-	-	-	333
Pentachlorobenzene	<1.07	-	-	-	20
Pentachlorophenol	<0.234	-	-	-	5
Phenanthrene	<1.42	-	-	-	10
Polychlorinated biphenyls (PCBs) (**)	<0.0659	-	-	-	0.2
Pyridine	<10.	-	-	-	20
1,2,4,5-Tetrachlorobenzene	<1.32	-	-	-	20
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	0.786	-	-	-	10
Toluene	<0.475	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10
Trichloroethene [Trichloroethylene]	<1.5	-	-	-	10
2,4,5-Trichlorophenol	<2.	-	-	-	50
TTHM (Total trihalomethanes)	11.3	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

#### d. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes    ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

#### e. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**f. *E. coli* (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☒ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**Table 4 for Outfall No.: 003**

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	Monitored at internal Outfall 101.				N/A



TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			25-Dec-24				
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.324	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.029	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0444	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00112	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.2	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.66	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.102	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.141	-	-	-	1
Tin, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00059	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0563	-	-	-	30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input checked="" type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	25-Dec-24				
Acrolein	<11.1	-	-	-	50
Acrylonitrile	<14.3	-	-	-	50
Benzene	<0.46	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane	<0.547	-	-	-	10
Chloroethane	<1.98	-	-	-	50
2-Chloroethylvinyl ether	<0.753	-	-	-	10
Chloroform	11.3	-	-	-	10
Dichlorobromomethane [Bromodichloromethane]	<0.552	-	-	-	10
1,1-Dichloroethane	<0.635	-	-	-	10
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	-	-	-	10
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	-	-	-	10
Ethylbenzene	<0.385	-	-	-	10
Methyl bromide [Bromomethane]	<1.42	-	-	-	50
Methyl chloride [Chloromethane]	<2.04	-	-	-	50
Methylene chloride [Dichloromethane]	<1.73	-	-	-	20
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10
Tetrachloroethylene [Tetrachloroethene]	0.786	-	-	-	10
Toluene	<0.475	-	-	-	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	25-Dec-24				
2-Chlorophenol	<0.649	-	-	-	10
2,4-Dichlorophenol	<0.314	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
4,6-Dinitro-o-cresol	<1.44	-	-	-	50
2,4-Dinitrophenol	<1.61	-	-	-	50
2-Nitrophenol	<1.67	-	-	-	20
4-Nitrophenol	<2.36	-	-	-	50
p-Chloro-m-cresol	<0.234	-	-	-	10
Pentachlorophenol	<0.234	-	-	-	5
Phenol	<0.423	-	-	-	10
2,4,6-Trichlorophenol	<1.42	-	-	-	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	25-Dec-24				
Acenaphthene	<1.39	-	-	-	10
Acenaphthylene	<1.41	-	-	-	10
Anthracene	<1.5	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	-	-	-	10
Benzo(ghi)perylene	<2.68	-	-	-	20
Benzo(k)fluoranthene	<5.	-	-	-	5
Bis(2-chloroethoxy)methane	<1.76	-	-	-	10
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-chloroisopropyl)ether	<1.79	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
4-Bromophenyl phenyl ether	<0.256	-	-	-	10
Butylbenzyl phthalate	<0.337	-	-	-	10
2-Chloronaphthalene	<0.462	-	-	-	10
4-Chlorophenyl phenyl ether	<1.28	-	-	-	10
Chrysene	<0.222	-	-	-	5
Dibenzo(a,h)anthracene	<0.246	-	-	-	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	-	-	-	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
Diethyl phthalate	<1.59	-	-	-	10
Dimethyl phthalate	<2.5	-	-	-	10
Di-n-butyl phthalate	<0.252	-	-	-	10
2,4-Dinitrotoluene	<1.31	-	-	-	10
2,6-Dinitrotoluene	<1.61	-	-	-	10
Di-n-octyl phthalate	<0.373	-	-	-	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	-	-	-	20
Fluoranthene	<1.59	-	-	-	10
Fluorene	<1.63	-	-	-	10
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
Indeno(1,2,3-cd)pyrene	<2.29	-	-	-	5
Isophorone	<1.64	-	-	-	10
Naphthalene	<2.5	-	-	-	10
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodimethylamine	<2.02	-	-	-	50
N-Nitrosodi-n-propylamine	<2.88	-	-	-	20
N-Nitrosodiphenylamine	<1.81	-	-	-	20
Phenanthrene	<1.42	-	-	-	10
Pyrene	<0.178	-	-	-	10
1,2,4-Trichlorobenzene	<1.61	-	-	-	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	25-Dec-24				
Aldrin	<0.0159	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.016	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.0173	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.0171	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.00879	-	-	-	0.05
Chlordane	<0.196	-	-	-	0.2
4,4'-DDT	<0.0181	-	-	-	0.02
4,4'-DDE	<0.0162	-	-	-	0.1
4,4'-DDD	<0.018	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.0174	-	-	-	0.02
Endosulfan I (alpha)	<0.0187	-	-	-	0.01
Endosulfan II (beta)	<0.0178	-	-	-	0.02
Endosulfan sulfate	<0.0153	-	-	-	0.1
Endrin	<0.0167	-	-	-	0.02
Endrin aldehyde	<0.0168	-	-	-	0.1
Heptachlor	<0.0279	-	-	-	0.01
Heptachlor epoxide	<0.0183	-	-	-	0.01
PCB 1242	<0.0524	-	-	-	0.2
PCB 1254	<0.0659	-	-	-	0.2
PCB 1221	<0.0524	-	-	-	0.2
PCB 1232	<0.0524	-	-	-	0.2
PCB 1248	<0.0524	-	-	-	0.2
PCB 1260	<0.0659	-	-	-	0.2
PCB 1016	<0.0524	-	-	-	0.2
Toxaphene	<0.339	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						



**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **003**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		25-Dec-24				
Vanadium, total	7440-62-2	12.	-	-	-	200.8
Acetaldehyde	75-07-0	<60	-	-	-	8315A
Styrene	100-42-5	<0.619	-	-	-	624.1 [1]
Vinyl acetate	108-05-4	11.6	-	-	-	624.1 [1]
[1] Lab is accredited for 8260.						

## Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. Attachment: N/A

### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 004

Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	12/17-19/24	12/23-26/24	12/30/24- 1/2/25	1/7-10/25
BOD (5-day)	<2.4	<3.	<3.	<12.
CBOD (5-day)	<3.	<6.	3.23	<3.
Chemical oxygen demand	60.	50.	68.	74.
Total organic carbon	11.	10.7	11.5	15.
Dissolved oxygen	6.13	6.89	7.06	5.81
Ammonia nitrogen	0.0553	0.288	<0.0508	<0.0508
Total suspended solids	6.4	<4.	4.8	<4.
Nitrate nitrogen	4.66	7.98	6.06	7.3
Total organic nitrogen	3.69	0.424	6.44	0.294
Total phosphorus	0.816	0.967	0.984	1.07
Oil and grease	<1.57	<1.57	<1.57	<1.57
Total residual chlorine	0.03	0.05	0.08	0.02
Total dissolved solids	-	2790.	2350.	2580.
Sulfate	1940.	1690.	1340.	1350.
Chloride	211.	208.	210.	224.
Fluoride	0.632	1.1	0.856	1.01
Total alkalinity (mg/L as CaCO <sub>3</sub> )	196.	137.	117.	121.
Temperature (°F)	82.5	81.1	77.8	74.5
pH (standard units)	-	-	7.47	8.

Table 2 for Outfall No.: **004**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	12/19/24	12/25/24	1/2/25	1/7-10/25	
Aluminum, total	14.7	19.2	14.2	19.	2.5
Antimony, total	1.05	1.23	<1.05	1.29	5
Arsenic, total	6.12	6.54	5.72	5.84	0.5
Barium, total	233.	259.	213.	234.	3
Beryllium, total	<0.375	<0.375	<0.375	<0.375	0.5
Cadmium, total	<0.258	<0.258	<0.258	<0.258	1
Chromium, total	2.73	2.26	1.62	1.98	3
Chromium, hexavalent	<2.	<2.	<2.	<2.	3
Chromium, trivalent	<3.45	<3.45	<3.45	<3.45	N/A
Copper, total	12.7	10.4	9.27	9.43	2
Cyanide, available	<5.	7.14	7.61	<5.	2/10
Lead, total	<0.369	<0.369	<0.369	<0.369	0.5
Mercury, total	0.000636	0.0069	<0.00029	0.00531	0.005/0.0005
Nickel, total	6.75	8.52	8.5	10.7	2
Selenium, total	1.31	1.21	1.07	0.783	5
Silver, total	<0.351	<0.351	<0.351	<0.351	0.5
Thallium, total	<0.215	<0.215	<0.215	<0.215	0.5
Zinc, total	11.1	11.3	10.3	11.5	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **0**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	12/19/24	12/25/24	1/2/25	1/10/25	
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzene	<0.46	<0.46	<0.46	<0.46	10
Benzidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
Bromodichloromethane [Dichlorobromomethane]	<0.552	<0.552	<0.552	<0.552	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane [Dibromochloromethane]	<0.547	<0.547	<0.547	<0.547	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	4.55	7.78	5.68	6.09	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
m-Cresol [3-Methylphenol] [1]	<2.62	<2.62	<2.62	<2.62	10
o-Cresol [2-Methylphenol]	<1.62	<1.62	<1.62	<1.62	10
p-Cresol [4-Methylphenol]	<2.62	<2.62	<2.62	<2.62	10
1,2-Dibromoethane	<0.999	<0.999	<0.999	<0.999	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	<0.738	<0.738	<0.738	10
Dichloromethane [Methylene chloride]	<1.73	<1.73	<1.73	<1.73	20
1,2-Dichloropropane	<0.556	<0.556	<0.556	<0.556	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	<1.27	<1.27	<1.27	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
Di-n-Butyl phthalate	0.281	<0.252	<0.252	<0.252	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2]	<7.52	<7.52	<7.52	<7.52	---
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Ethylene Glycol	<1220.	<1220.	<1220.	<1220.	---
Fluoride	632.	1100.	856.	1010.	500
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
4,4'-Isopropylidenediphenol (bisphenol A)	<0.979	<1.02	<1.04	<1.	1
Methyl ethyl ketone	<8.28	<8.28	<8.28	<8.28	50
Methyl tert-butyl ether (MTBE)	<1.39	<1.39	<1.39	<1.39	---
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodiethylamine	<1.75	<1.75	<1.75	<1.75	20
N-Nitroso-di-n-butylamine	<1.49	<1.49	<1.49	<1.49	20
Nonylphenol	<1.08	<1.13	<2.48	<2.38	333
Pentachlorobenzene	<1.07	<1.07	<1.07	<1.07	20
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Polychlorinated biphenyls (PCBs) (**)	<0.0653	<0.0657	<0.0657	<0.0656	0.2
Pyridine	<10.	<10.	<10.	<10.	20
1,2,4,5-Tetrachlorobenzene	<1.32	<1.32	<1.32	<1.32	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10
Trichloroethene [Trichloroethylene]	<1.5	<1.5	<1.5	<1.5	10
2,4,5-Trichlorophenol	<2.	<2.	<2.	<2.	50
TTHM (Total trihalomethanes)	4.55	7.78	5.68	6.09	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

#### g. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

#### h. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes      ☐ No

Domestic wastewater is/will be discharged.

☐ Yes      ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**i. *E. coli* (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes      ☒ No

Domestic wastewater is/will be discharged.

☒ Yes      ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**Table 4 for Outfall No.: 004**

Samples are (check one): ☐ Composite      ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	Monitored at internal Outfall 104				N/A

TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			19-Dec-24				
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.659	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.66	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.029	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.158	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.341	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.000626	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.195	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.6	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0268	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0436	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.000333	-	-	-	5
Titanium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.00117	-	-	-	30



TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input checked="" type="checkbox"/> Organic Chemicals Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)* 19-Dec-24	Sample 2 (µg/L)* 25-Dec-24	Sample 3 (µg/L)* 2-Jan-25	Sample 4 (µg/L)* 10-Jan-25	MAL (µg/L)
Acrolein	<11.1	<11.1	<11.1	<11.1	50
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Benzene	<0.46	<0.46	<0.46	<0.46	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane	<0.547	<0.547	<0.547	<0.547	10
Chloroethane	<1.98	<1.98	<1.98	<1.98	50
2-Chloroethylvinyl ether	<0.753	<0.753	<0.753	<0.753	10
Chloroform	4.55	7.78	5.68	6.09	10
Dichlorobromomethane [Bromodichloromethane]	<0.552	<0.552	<0.552	<0.552	10
1,1-Dichloroethane	<0.635	<0.635	<0.635	<0.635	10
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	<0.738	<0.738	<0.738	10
1,2-Dichloropropane	<0.556	<0.556	<0.556	<0.556	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	<1.27	<1.27	<1.27	10
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Methyl bromide [Bromomethane]	<1.42	<1.42	<1.42	<1.42	50
Methyl chloride [Chloromethane]	<2.04	<2.04	<2.04	<2.04	50
Methylene chloride [Dichloromethane]	<1.73	<1.73	<1.73	<1.73	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10
Tetrachloroethylene [Tetrachloroethene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	<0.368	<0.368	<0.368	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	<1.5	<1.5	<1.5	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
2-Chlorophenol	<0.649	<0.649	<0.649	<0.649	10
2,4-Dichlorophenol	<0.314	<0.314	<0.314	<0.314	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
4,6-Dinitro-o-cresol	<1.44	<1.44	<1.44	<1.44	50
2,4-Dinitrophenol	<1.61	<1.61	<1.61	<1.61	50
2-Nitrophenol	<1.67	<1.67	<1.67	<1.67	20
4-Nitrophenol	<7.2	<2.36	<2.36	<2.36	50
p-Chloro-m-cresol	<1.57	<1.57	<1.57	<1.57	10
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenol	<0.423	<0.423	<0.423	<0.423	10
2,4,6-Trichlorophenol	<1.42	<1.42	<1.42	<1.42	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Acenaphthene	<1.39	<1.39	<1.39	<1.39	10
Acenaphthylene	<1.41	<1.41	<1.41	<1.41	10
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	<2.04	<2.04	<2.04	10
Benzo(ghi)perylene	<2.68	<2.68	<2.68	<2.68	20
Benzo(k)fluoranthene	<5.	<5.	<5.	<5.	5
Bis(2-chloroethoxy)methane	<1.76	<1.76	<1.76	<1.76	10
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-chloroisopropyl)ether	<1.79	<1.79	<1.79	<1.79	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
4-Bromophenyl phenyl ether	<0.256	<0.256	<0.256	<0.256	10
Butylbenzyl phthalate	<0.337	<0.337	<0.337	<0.337	10
2-Chloronaphthalene	<0.462	<0.462	<0.462	<0.462	10
4-Chlorophenyl phenyl ether	<1.28	<1.28	<1.28	<1.28	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
Dibenzo(a,h)anthracene	<0.246	<0.246	<0.246	<0.246	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
Diethyl phthalate	<1.59	<1.59	<1.59	<1.59	10
Dimethyl phthalate	<2.5	<2.5	<2.5	<2.5	10
Di-n-butyl phthalate	0.281	<0.252	<0.252	<0.252	10
2,4-Dinitrotoluene	<1.31	<1.31	<1.31	<1.31	10
2,6-Dinitrotoluene	<1.61	<1.61	<1.61	<1.61	10
Di-n-octyl phthalate	<0.373	<0.373	<0.373	<0.373	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	<1.49	<1.49	<1.49	20
Fluoranthene	<1.59	<1.59	<1.59	<1.59	10
Fluorene	<1.63	<1.63	<1.63	<1.63	10
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
Indeno(1,2,3-cd)pyrene	<2.29	<2.29	<2.29	<2.29	5
Isophorone	<1.64	<1.64	<1.64	<1.64	10
Naphthalene	<2.5	<2.5	<2.5	<2.5	10
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodimethylamine	<2.02	<2.02	<2.02	<2.02	50
N-Nitrosodi-n-propylamine	<2.88	<2.88	<2.88	<2.88	20
N-Nitrosodiphenylamine	<1.81	<1.81	<1.81	<1.81	20
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Pyrene	<0.178	<0.178	<0.178	<0.178	10
1,2,4-Trichlorobenzene	<1.61	<1.61	<1.61	<1.61	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Aldrin	<0.0113	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.0142	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.0389	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.0299	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.0245	-	-	-	0.05
Chlordane	<1.03	-	-	-	0.2
4,4'-DDT	<0.0379	-	-	-	0.02
4,4'-DDE	<0.0109	-	-	-	0.1
4,4'-DDD	<0.0081	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.00953	-	-	-	0.02
Endosulfan I (alpha)	<0.0107	-	-	-	0.01
Endosulfan II (beta)	<0.0122	-	-	-	0.02
Endosulfan sulfate	<0.0112	-	-	-	0.1
Endrin	<0.0156	-	-	-	0.02
Endrin aldehyde	<0.0118	-	-	-	0.1
Heptachlor	<0.0446	-	-	-	0.01
Heptachlor epoxide	<0.0134	-	-	-	0.01
PCB 1242	<0.052	<0.0523	<0.0523	<0.0522	0.2
PCB 1254	<0.0653	<0.0657	<0.0657	<0.0656	0.2
PCB 1221	<0.052	<0.0523	<0.0523	<0.0522	0.2
PCB 1232	<0.052	<0.0523	<0.0523	<0.0522	0.2
PCB 1248	<0.052	<0.0523	<0.0523	<0.0522	0.2
PCB 1260	<0.0653	<0.0657	<0.0657	<0.0656	0.2
PCB 1016	<0.052	<0.0523	<0.0523	<0.0522	0.2
Toxaphene	<0.769	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **004**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Vanadium, total	7440-62-2	6.65	5.91	5.43	6.35	200.8
Acetaldehyde	75-07-0	32.5	-	-	-	8315A
Aniline	62-53-3	<0.969	-	-	-	625.1 [2]
Carbon disulfide	75-15-0	<1.65	-	-	-	624.1 [1]
Cyclohexane	110-82-7	<1.29	-	-	-	624.1
Dicyclopentadiene	77-73-6	1.88	-	-	-	8260C
Dinitrobenzene	98-95-3	<10	-	-	-	625.1 [2]
Formaldehyde	50-00-0	<27	-	-	-	8315A
Methanol	67-56-1	<2270	-	-	-	8015D
Styrene	100-42-5	<0.619	<0.619	<0.619	<0.619	624.1 [1]
o-Xylene	95-47-6	<0.502	-	-	-	624.1
m/p-Xylene	108-38-3 106-42-3	<1.24	-	-	-	624.1
Vinyl acetate	108-05-4	<2.14	-	-	-	624.1 [1]
Dimethylformamide	68-12-2	-	-	-	-	-
Isoprene	78-79-5	-	-	-	-	-
Methyl mercaptan	74-93-1	-	-	-	-	-
Nitrotoluene	N/A	-	-	-	-	-
[1] Lab is accredited for 8260.						
[2] Lab is accredited for 8270.						

## Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. Attachment: N/A

### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 005

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	11-Feb-25			
BOD (5-day)	<3.			
CBOD (5-day)	<3.			
Chemical oxygen demand	4.16			
Total organic carbon	12.2			
Dissolved oxygen	-			
Ammonia nitrogen	<0.0508			
Total suspended solids	7.5			
Nitrate nitrogen	0.354			
Total organic nitrogen	<0.0614			
Total phosphorus	0.121			
Oil and grease	<1.57			
Total residual chlorine	-			
Total dissolved solids	238.			
Sulfate	101.			
Chloride	13.5			
Fluoride	0.529			
Total alkalinity (mg/L as CaCO <sub>3</sub> )	49.1			
Temperature (°F)	-			
pH (standard units)	-			



Table 2 for Outfall No.: **005**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	11-Feb-25				
Aluminum, total	280.	-	-	-	2.5
Antimony, total	<1.05	-	-	-	5
Arsenic, total	<0.929	-	-	-	0.5
Barium, total	37.8	-	-	-	3
Beryllium, total	<0.375	-	-	-	0.5
Cadmium, total	<0.258	-	-	-	1
Chromium, total	2.72	-	-	-	3
Chromium, hexavalent	<2.	-	-	-	3
Chromium, trivalent	<3.45	-	-	-	N/A
Copper, total	1.79	-	-	-	2
Cyanide, available	<5.	-	-	-	2/10
Lead, total	0.385	-	-	-	0.5
Mercury, total	0.000421	-	-	-	0.005/0.0005
Nickel, total	1.44	-	-	-	2
Selenium, total	<0.685	-	-	-	5
Silver, total	<0.351	-	-	-	0.5
Thallium, total	<0.215	-	-	-	0.5
Zinc, total	31.5	-	-	-	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **005**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	11-Feb-25				
Acrylonitrile	<14.3	-	-	-	50
Anthracene	<1.5	-	-	-	10
Benzene	<0.46	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
Bromodichloromethane [Dichlorobromomethane]	<0.552	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane	<0.547	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
[Dibromochloromethane]					
Chloroform	<0.464	-	-	-	10
Chrysene	<0.222	-	-	-	5
m-Cresol [3-Methylphenol] [1/]	<2.62	-	-	-	10
o-Cresol [2-Methylphenol]	<1.62	-	-	-	10
p-Cresol [4-Methylphenol]	<2.62	-	-	-	10
1,2-Dibromoethane	<0.999	-	-	-	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	-	-	-	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	-	-	-	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	-	-	-	10
Dichloromethane [Methylene chloride]	<1.73	-	-	-	20
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
Di-n-Butyl phthalate	2.71	-	-	-	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2/]	<7.52	-	-	-	---
Ethylbenzene	<0.385	-	-	-	10
Ethylene Glycol	<1220.	-	-	-	---
Fluoride	529.	-	-	-	500
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
4,4'-Isopropylidenediphenol (bisphenol A)	<1.06	-	-	-	1
Methyl ethyl ketone	<8.28	-	-	-	50
Methyl tert-butyl ether (MTBE)	<1.39	-	-	-	---
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodiethylamine	<1.75	-	-	-	20
N-Nitroso-di-n-butylamine	<1.49	-	-	-	20
Nonylphenol	<2.52	-	-	-	333
Pentachlorobenzene	<1.07	-	-	-	20
Pentachlorophenol	<0.234	-	-	-	5
Phenanthrene	<1.42	-	-	-	10
Polychlorinated biphenyls (PCBs) (**)	<0.0659	-	-	-	0.2
Pyridine	<10.	-	-	-	20
1,2,4,5-Tetrachlorobenzene	<1.32	-	-	-	20

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10
Tetrachloroethene [Tetrachloroethylene]	<0.655	-	-	-	10
Toluene	<0.475	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10
Trichloroethene [Trichloroethylene]	<1.5	-	-	-	10
2,4,5-Trichlorophenol	<2.	-	-	-	50
TTHM (Total trihalomethanes)	<0.633	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

#### j. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes      ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

#### k. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**1. E. coli (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☒ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	Monitored at internal Outfall 104				N/A

TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			11-Feb-25				
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.132	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.443	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.029	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.05	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0378	-	-	-	20
Cobalt, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.000264	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.204	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.77	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0128	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00328	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.000333	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00599	-	-	-	30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☒ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	11-Feb-25				
Acrolein	<11.1	-	-	-	50
Acrylonitrile	<14.3	-	-	-	50
Benzene	<0.46	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane	<0.547	-	-	-	10
Chloroethane	<1.98	-	-	-	50
2-Chloroethylvinyl ether	<0.753	-	-	-	10
Chloroform	<0.464	-	-	-	10
Dichlorobromomethane [Bromodichloromethane]	<0.552	-	-	-	10
1,1-Dichloroethane	<0.635	-	-	-	10
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	-	-	-	10
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	-	-	-	10
Ethylbenzene	<0.385	-	-	-	10
Methyl bromide [Bromomethane]	<1.42	-	-	-	50
Methyl chloride [Chloromethane]	<2.04	-	-	-	50
Methylene chloride [Dichloromethane]	<1.73	-	-	-	20
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10
Tetrachloroethylene [Tetrachloroethene]	<0.655	-	-	-	10
Toluene	<0.475	-	-	-	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	11-Feb-25				
2-Chlorophenol	<0.649	-	-	-	10
2,4-Dichlorophenol	<0.314	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
4,6-Dinitro-o-cresol	<1.44	-	-	-	50
2,4-Dinitrophenol	<1.61	-	-	-	50
2-Nitrophenol	<1.67	-	-	-	20
4-Nitrophenol	<2.36	-	-	-	50
p-Chloro-m-cresol	<1.57	-	-	-	10
Pentachlorophenol	<0.234	-	-	-	5
Phenol	<0.423	-	-	-	10
2,4,6-Trichlorophenol	<1.42	-	-	-	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	11-Feb-25				
Acenaphthene	<1.39	-	-	-	10
Acenaphthylene	<1.41	-	-	-	10
Anthracene	<1.5	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	-	-	-	10
Benzo(ghi)perylene	<2.68	-	-	-	20
Benzo(k)fluoranthene	<5.	-	-	-	5
Bis(2-chloroethoxy)methane	<1.76	-	-	-	10
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-chloroisopropyl)ether	<1.79	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
4-Bromophenyl phenyl ether	<0.256	-	-	-	10
Butylbenzyl phthalate	<0.337	-	-	-	10
2-Chloronaphthalene	<0.462	-	-	-	10
4-Chlorophenyl phenyl ether	<1.28	-	-	-	10
Chrysene	<0.222	-	-	-	5
Dibenzo(a,h)anthracene	<0.246	-	-	-	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	-	-	-	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
Diethyl phthalate	<1.59	-	-	-	10
Dimethyl phthalate	<2.5	-	-	-	10
Di-n-butyl phthalate	2.71	-	-	-	10
2,4-Dinitrotoluene	<1.31	-	-	-	10
2,6-Dinitrotoluene	<1.61	-	-	-	10
Di-n-octyl phthalate	<0.373	-	-	-	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	-	-	-	20
Fluoranthene	<1.59	-	-	-	10
Fluorene	<1.63	-	-	-	10
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
Indeno(1,2,3-cd)pyrene	<2.29	-	-	-	5
Isophorone	<1.64	-	-	-	10
Naphthalene	<2.5	-	-	-	10
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodimethylamine	<2.02	-	-	-	50
N-Nitrosodi-n-propylamine	<2.88	-	-	-	20
N-Nitrosodiphenylamine	<1.81	-	-	-	20
Phenanthrene	<1.42	-	-	-	10
Pyrene	<0.178	-	-	-	10
1,2,4-Trichlorobenzene	<1.61	-	-	-	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	11-Feb-25				
Aldrin	<0.0159	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.016	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.0173	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.0171	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.00879	-	-	-	0.05
Chlordane	<0.196	-	-	-	0.2
4,4'-DDT	<0.0181	-	-	-	0.02
4,4'-DDE	<0.0162	-	-	-	0.1
4,4'-DDD	<0.018	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.0174	-	-	-	0.02
Endosulfan I (alpha)	<0.0187	-	-	-	0.01
Endosulfan II (beta)	<0.0178	-	-	-	0.02
Endosulfan sulfate	<0.0153	-	-	-	0.1
Endrin	<0.0167	-	-	-	0.02
Endrin aldehyde	<0.0168	-	-	-	0.1
Heptachlor	<0.0279	-	-	-	0.01
Heptachlor epoxide	<0.0183	-	-	-	0.01
PCB 1242	<0.0524	-	-	-	0.2
PCB 1254	<0.0659	-	-	-	0.2
PCB 1221	<0.0524	-	-	-	0.2
PCB 1232	<0.0524	-	-	-	0.2
PCB 1248	<0.0524	-	-	-	0.2
PCB 1260	<0.0659	-	-	-	0.2
PCB 1016	<0.0524	-	-	-	0.2
Toxaphene	<0.339	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **005**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		11-Feb-25				
Vanadium, total	7440-62-2	9.65	-	-	-	200.8
Acetaldehyde	75-07-0	<60	-	-	-	8315A
Styrene	100-42-5	<0.619	-	-	-	624.1 [1]
Vinyl acetate	108-05-4	<2.14	-	-	-	624.1 [1]
[1] Lab is accredited for 8260.						

### Item 3. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** N/A

#### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 006

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	30-Jan-25			
BOD (5-day)	<30.			
CBOD (5-day)	<12.			
Chemical oxygen demand	40.			
Total organic carbon	4.53			
Dissolved oxygen	-			
Ammonia nitrogen	<0.0508			
Total suspended solids	154.			
Nitrate nitrogen	0.223			
Total organic nitrogen	6.1			
Total phosphorus	0.032			
Oil and grease	<1.57			
Total residual chlorine	-			
Total dissolved solids	129.			
Sulfate	13.8			
Chloride	9.63			
Fluoride	0.222			
Total alkalinity (mg/L as CaCO <sub>3</sub> )	46.7			
Temperature (°F)	-			
pH (standard units)	-			

Table 2 for Outfall No.: **006**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	30-Jan-25				
Aluminum, total	1240.	-	-	-	2.5
Antimony, total	<1.05	-	-	-	5
Arsenic, total	1.31	-	-	-	0.5
Barium, total	65.2	-	-	-	3
Beryllium, total	0.394	-	-	-	0.5
Cadmium, total	<0.258	-	-	-	1
Chromium, total	1.93	-	-	-	3
Chromium, hexavalent	<2.	-	-	-	3
Chromium, trivalent	<3.45	-	-	-	N/A
Copper, total	4.93	-	-	-	2
Cyanide, available	<5.	-	-	-	2/10
Lead, total	3.31	-	-	-	0.5
Mercury, total	0.00216	-	-	-	0.005/0.0005
Nickel, total	3.85	-	-	-	2
Selenium, total	<0.685	-	-	-	5
Silver, total	<0.351	-	-	-	0.5
Thallium, total	<0.215	-	-	-	0.5
Zinc, total	143.	-	-	-	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **006**Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	30-Jan-25				
Acrylonitrile	<14.3	-	-	-	50
Anthracene	<1.5	-	-	-	10
Benzene	<0.46	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
Bromodichloromethane [Dichlorobromomethane]	<0.552	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane [Dibromochloromethane]	<0.547	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	<0.464	-	-	-	10
Chrysene	<0.222	-	-	-	5
m-Cresol [3-Methylphenol] [1]	<2.62	-	-	-	10
o-Cresol [2-Methylphenol]	<1.62	-	-	-	10
p-Cresol [4-Methylphenol]	<2.62	-	-	-	10
1,2-Dibromoethane	<0.999	-	-	-	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	-	-	-	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	-	-	-	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	-	-	-	10
Dichloromethane [Methylene chloride]	<1.73	-	-	-	20
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
Di-n-Butyl phthalate	<0.252	-	-	-	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2]	<7.52	-	-	-	---
Ethylbenzene	<0.385	-	-	-	10
Ethylene Glycol	<1220.	-	-	-	---
Fluoride	222.	-	-	-	500
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
4,4'-Isopropylidenediphenol (bisphenol A)	<10.5	-	-	-	1
Methyl ethyl ketone	<8.28	-	-	-	50
Methyl tert-butyl ether (MTBE)	<1.39	-	-	-	---
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodiethylamine	<1.75	-	-	-	20
N-Nitroso-di-n-butylamine	<1.49	-	-	-	20
Nonylphenol	<25.	-	-	-	333
Pentachlorobenzene	<1.07	-	-	-	20
Pentachlorophenol	<0.234	-	-	-	5
Phenanthrene	<1.42	-	-	-	10
Polychlorinated biphenyls (PCBs) (**)	<0.0655	-	-	-	0.2
Pyridine	<10.	-	-	-	20
1,2,4,5-Tetrachlorobenzene	<1.32	-	-	-	20
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<0.655	-	-	-	10
Toluene	<0.475	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10
Trichloroethene [Trichloroethylene]	<1.5	-	-	-	10
2,4,5-Trichlorophenol	<2.	-	-	-	50
TTHM (Total trihalomethanes)	<0.633	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

#### m. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

#### n. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**o. E. coli (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**Table 4 for Outfall No.: 006**

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A

TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			30-Jan-25				
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.132	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.351	-	-	-	—
Sulfide (as S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0691	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.05	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0246	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00118	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.767	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.3	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0779	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00194	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.000333	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0128	-	-	-	30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☒ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	30-Jan-25				
Acrolein	<11.1	-	-	-	50
Acrylonitrile	<14.3	-	-	-	50
Benzene	<0.46	-	-	-	10
Bromoform	<0.633	-	-	-	10
Carbon tetrachloride	<0.896	-	-	-	2
Chlorobenzene	<0.455	-	-	-	10
Chlorodibromomethane	<0.547	-	-	-	10
Chloroethane	<1.98	-	-	-	50
2-Chloroethylvinyl ether	<0.753	-	-	-	10
Chloroform	<0.464	-	-	-	10
Dichlorobromomethane [Bromodichloromethane]	<0.552	-	-	-	10
1,1-Dichloroethane	<0.635	-	-	-	10
1,2-Dichloroethane	<0.372	-	-	-	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	-	-	-	10
1,2-Dichloropropane	<0.556	-	-	-	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	-	-	-	10
Ethylbenzene	<0.385	-	-	-	10
Methyl bromide [Bromomethane]	<1.42	-	-	-	50
Methyl chloride [Chloromethane]	<2.04	-	-	-	50
Methylene chloride [Dichloromethane]	<1.73	-	-	-	20
1,1,2,2-Tetrachloroethane	<0.47	-	-	-	10
Tetrachloroethylene [Tetrachloroethene]	<0.655	-	-	-	10
Toluene	<0.475	-	-	-	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	-	-	-	10
1,1,1-Trichloroethane	<0.585	-	-	-	10
1,1,2-Trichloroethane	<0.411	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	-	-	-	10
Vinyl chloride	<0.428	-	-	-	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	30-Jan-25				
2-Chlorophenol	<0.649	-	-	-	10
2,4-Dichlorophenol	<0.314	-	-	-	10
2,4-Dimethylphenol	<0.649	-	-	-	10
4,6-Dinitro-o-cresol	<1.44	-	-	-	50
2,4-Dinitrophenol	<1.61	-	-	-	50
2-Nitrophenol	<1.67	-	-	-	20
4-Nitrophenol	<2.36	-	-	-	50
p-Chloro-m-cresol	<1.57	-	-	-	10
Pentachlorophenol	<0.234	-	-	-	5
Phenol	<0.423	-	-	-	10
2,4,6-Trichlorophenol	<1.42	-	-	-	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	30-Jan-25				
Acenaphthene	<1.39	-	-	-	10
Acenaphthylene	<1.41	-	-	-	10
Anthracene	<1.5	-	-	-	10
Benzidine	<20.	-	-	-	50
Benzo(a)anthracene	<0.173	-	-	-	5
Benzo(a)pyrene	<0.364	-	-	-	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	-	-	-	10
Benzo(ghi)perylene	<2.68	-	-	-	20
Benzo(k)fluoranthene	<5.	-	-	-	5
Bis(2-chloroethoxy)methane	<1.76	-	-	-	10
Bis(2-chloroethyl)ether	<2.16	-	-	-	10
Bis(2-chloroisopropyl)ether	<1.79	-	-	-	10
Bis(2-ethylhexyl)phthalate	<0.277	-	-	-	10
4-Bromophenyl phenyl ether	<0.256	-	-	-	10
Butylbenzyl phthalate	<0.337	-	-	-	10
2-Chloronaphthalene	<0.462	-	-	-	10
4-Chlorophenyl phenyl ether	<1.28	-	-	-	10
Chrysene	<0.222	-	-	-	5
Dibenzo(a,h)anthracene	<0.246	-	-	-	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	-	-	-	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	-	-	-	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	-	-	-	10
3,3'-Dichlorobenzidine	<0.341	-	-	-	5
Diethyl phthalate	<1.59	-	-	-	10
Dimethyl phthalate	<2.5	-	-	-	10
Di-n-butyl phthalate	<0.252	-	-	-	10
2,4-Dinitrotoluene	<1.31	-	-	-	10
2,6-Dinitrotoluene	<1.61	-	-	-	10
Di-n-octyl phthalate	<0.373	-	-	-	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	-	-	-	20
Fluoranthene	<1.59	-	-	-	10
Fluorene	<1.63	-	-	-	10
Hexachlorobenzene	<0.307	-	-	-	5
Hexachlorobutadiene	<1.	-	-	-	10
Hexachlorocyclopentadiene	<10.	-	-	-	10
Hexachloroethane	<0.526	-	-	-	20
Indeno(1,2,3-cd)pyrene	<2.29	-	-	-	5
Isophorone	<1.64	-	-	-	10
Naphthalene	<2.5	-	-	-	10
Nitrobenzene	<1.66	-	-	-	10
N-Nitrosodimethylamine	<2.02	-	-	-	50
N-Nitrosodi-n-propylamine	<2.88	-	-	-	20
N-Nitrosodiphenylamine	<1.81	-	-	-	20
Phenanthrene	<1.42	-	-	-	10
Pyrene	<0.178	-	-	-	10
1,2,4-Trichlorobenzene	<1.61	-	-	-	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	30-Jan-25				
Aldrin	<0.0158	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.0159	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.0172	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.017	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.00874	-	-	-	0.05
Chlordane	<0.195	-	-	-	0.2
4,4'-DDT	<0.018	-	-	-	0.02
4,4'-DDE	<0.0161	-	-	-	0.1
4,4'-DDD	<0.0179	-	-	-	0.1



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.0173	-	-	-	0.02
Endosulfan I (alpha)	<0.0186	-	-	-	0.01
Endosulfan II (beta)	<0.0177	-	-	-	0.02
Endosulfan sulfate	<0.0152	-	-	-	0.1
Endrin	<0.0166	-	-	-	0.02
Endrin aldehyde	<0.0167	-	-	-	0.1
Heptachlor	<0.0277	-	-	-	0.01
Heptachlor epoxide	<0.0182	-	-	-	0.01
PCB 1242	<0.0521	-	-	-	0.2
PCB 1254	<0.0655	-	-	-	0.2
PCB 1221	<0.0521	-	-	-	0.2
PCB 1232	<0.0521	-	-	-	0.2
PCB 1248	<0.0521	-	-	-	0.2
PCB 1260	<0.0655	-	-	-	0.2
PCB 1016	<0.0521	-	-	-	0.2
Toxaphene	<0.337	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **006**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		30-Jan-25				
Vanadium, total	7440-62-2	13.3	-	-	-	200.8
Acetaldehyde	75-07-0	-	-	-	-	-
Styrene	100-42-5	<0.619	-	-	-	624.1 [1]
Vinyl acetate	108-05-4	<2.14	-	-	-	624.1 [1]
[1] Lab is accredited for 8260.						

## Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. Attachment: N/A

### TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 007

Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	12/16-/19/24	12/23-26/24	12/30/24- 1/2/25	1/6-10/25
BOD (5-day)	3.38	8.26	3.28	4.68
CBOD (5-day)	5.1	<3.	2.65	4.92
Chemical oxygen demand	44.	37.	60.	70.
Total organic carbon	11.5	12.	11.9	24.6
Dissolved oxygen	6.93	94.9	8.16	-
Ammonia nitrogen	<0.0508	<0.0508	<0.0508	<0.0508
Total suspended solids	<8.	5.1	<4.	37.
Nitrate nitrogen	0.222	0.189	0.296	0.693
Total organic nitrogen	1.09	0.786	5.55	2.24
Total phosphorus	0.831	0.531	1.47	1.76
Oil and grease	<1.57	<1.7	<1.57	-
Total residual chlorine	0.06	0.	0.18	-
Total dissolved solids	-	910.	938.	1040.
Sulfate	217.	253.	195.	277.
Chloride	106.	118.	126.	143.
Fluoride	0.344	0.687	0.567	0.58
Total alkalinity (mg/L as CaCO <sub>3</sub> )	417.	291.	254.	228.
Temperature (°F)	81.	79.	75.9	-
pH (standard units)	8.	7.9	7.	-

Table 2 for Outfall No.: **007**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
	12/19/24	12/25/24	1/2/25	1/6-10/25	
Aluminum, total	960.	392.	307.	4770.	2.5
Antimony, total	<1.05	<1.05	<1.05	<1.05	5
Arsenic, total	2.28	3.	2.82	3.06	0.5
Barium, total	72.4	102.	96.2	107.	3
Beryllium, total	<0.375	<0.375	<0.375	<0.375	0.5
Cadmium, total	<0.258	<0.258	<0.258	<0.258	1
Chromium, total	<0.89	1.41	<0.89	1.74	3
Chromium, hexavalent	<2.	<2.	<2.	2.6	3
Chromium, trivalent	<3.45	<3.45	<3.45	<0.56	N/A
Copper, total	4.28	5.65	5.32	4.6	2
Cyanide, available	<5.	6.78	7.51	6.97	2/10
Lead, total	<0.369	<0.369	<0.369	<0.369	0.5
Mercury, total	0.00122	0.00512	<0.00029	0.00772	0.005/0.0005
Nickel, total	3.82	4.4	11.6	5.71	2
Selenium, total	<0.685	<0.685	<0.685	<0.685	5
Silver, total	<0.351	<0.351	<0.351	<0.351	0.5
Thallium, total	<0.215	<0.215	<0.215	<0.215	0.5
Zinc, total	4.37	8.17	6.33	25.9	5.0

TABLE 3 (Instructions, Page 58)

**Completion** of Table 3 is required for all **external outfalls** which discharge process wastewater.

**Partial completion** of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: **007**Samples are (check one): ☒ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
	12/19/24	12/25/24	1/2/25	1/10/25	
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzene	<0.46	<0.46	<0.46	<0.46	10
Benzidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
Bromodichloromethane [Dichlorobromomethane]	<0.552	<0.552	<0.552	<0.552	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane [Dibromochloromethane]	<0.547	<0.547	<0.547	<0.547	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	4.13	4.04	7.33	5.9	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
m-Cresol [3-Methylphenol] [1]	<2.62	<2.62	<2.62	<2.62	10
o-Cresol [2-Methylphenol]	<1.62	<1.62	<1.62	<1.62	10
p-Cresol [4-Methylphenol]	<2.62	<2.62	<2.62	<2.62	10
1,2-Dibromoethane	<0.999	<0.999	<0.999	<0.999	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738	<0.738	<0.738	<0.738	10
Dichloromethane [Methylene chloride]	<1.73	<1.73	<1.73	<1.73	20
1,2-Dichloropropane	<0.556	<0.556	<0.556	<0.556	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27	<1.27	<1.27	<1.27	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
Di-n-Butyl phthalate	0.58	<0.252	<0.252	0.439	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane) [2]	<7.52	<7.52	<7.52	<7.52	---
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Ethylene Glycol	<1220.	<1220.	<1220.	<1220.	---
Fluoride	344.	687.	567.	580.	500
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
4,4'-Isopropylidenediphenol (bisphenol A)	<0.994	<1.06	<1.07	<1.03	1
Methyl ethyl ketone	<8.28	<8.28	<8.28	<8.28	50
Methyl tert-butyl ether (MTBE)	<1.39	<1.39	<1.39	<1.39	---
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodiethylamine	<1.75	<1.75	<1.75	<1.75	20
N-Nitroso-di-n-butylamine	<1.49	<1.49	<1.49	<1.49	20
Nonylphenol	<1.1	<1.18	<2.55	<2.45	333
Pentachlorobenzene	<1.07	<1.07	<1.07	<1.07	20
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Polychlorinated biphenyls (PCBs) (**)	<0.0655	<0.0659	<0.0656	<0.0661	0.2
Pyridine	<10.	<10.	<10.	<10.	20
1,2,4,5-Tetrachlorobenzene	<1.32	<1.32	<1.32	<1.32	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10
Trichloroethene [Trichloroethylene]	<1.5	<1.5	<1.5	<1.5	10
2,4,5-Trichlorophenol	<2.	<2.	<2.	<2.	50
TTHM (Total trihalomethanes)	4.13	4.04	7.33	5.9	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

(\*) Indicate units if different from µg/L.

(\*\*) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

[1] Reported under 625.1; laboratory accreditation for 8270.

[2] Reported under 624.1; laboratory accreditation for 8260.

#### TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

#### p. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

#### q. Enterococci (discharge to saltwater) N/A

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**r. E. coli (discharge to freshwater)**

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☒ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

**Table 4 for Outfall No.: 007**

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	N/A
<i>E. coli</i> (cfu or MPN/100 mL)	Monitored at internal Outfalls 207, 307, and 407.				N/A



TABLE 5 (Instructions, Page 59)

**Completion** of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I ( <i>alpha</i> )					0.01
Endosulfan II ( <i>beta</i> )					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane ( <i>alpha</i> )					0.05
Hexachlorocyclohexane ( <i>beta</i> )					0.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: **007**

Samples are (check one): ☒ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
			19-Dec-24				
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.132	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.222	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.029	-	-	-	—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.166	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.098	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.000302	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0841	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.72	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0119	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.031	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.000333	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.00117	-	-	-	30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input checked="" type="checkbox"/> Organic Chemicals Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

\* Test if believed present.

### TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: 007

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Acrolein	<11.1	<11.1	<11.1	<11.1	50
Acrylonitrile	<14.3	<14.3	<14.3	<14.3	50
Benzene	<0.46	<0.46	<0.46	<0.46	10
Bromoform	<0.633	<0.633	<0.633	<0.633	10
Carbon tetrachloride	<0.896	<0.896	<0.896	<0.896	2
Chlorobenzene	<0.455	<0.455	<0.455	<0.455	10
Chlorodibromomethane	<0.547	<0.547	<0.547	<0.547	10
Chloroethane	<1.98	<1.98	<1.98	<1.98	50
2-Chloroethylvinyl ether	<0.753	<0.753	<0.753	<0.753	10
Chloroform	4.13	4.04	7.33	5.9	10
Dichlorobromomethane [Bromodichloromethane]	<0.552	<0.552	<0.552	<0.552	10
1,1-Dichloroethane	<0.635	<0.635	<0.635	<0.635	10
1,2-Dichloroethane	<0.372	<0.372	<0.372	<0.372	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738	<0.738	<0.738	<0.738	10
1,2-Dichloropropane	<0.556	<0.556	<0.556	<0.556	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27	<1.27	<1.27	<1.27	10
Ethylbenzene	<0.385	<0.385	<0.385	<0.385	10
Methyl bromide [Bromomethane]	<1.42	<1.42	<1.42	<1.42	50
Methyl chloride [Chloromethane]	<2.04	<2.04	<2.04	<2.04	50
Methylene chloride [Dichloromethane]	<1.73	<1.73	<1.73	<1.73	20
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10
Tetrachloroethylene [Tetrachloroethene]	<0.655	<0.655	<0.655	<0.655	10
Toluene	<0.475	<0.475	<0.475	<0.475	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368	<0.368	<0.368	<0.368	10
1,1,1-Trichloroethane	<0.585	<0.585	<0.585	<0.585	10
1,1,2-Trichloroethane	<0.411	<0.411	<0.411	<0.411	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.5	<1.5	<1.5	<1.5	10
Vinyl chloride	<0.428	<0.428	<0.428	<0.428	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: 007Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
2-Chlorophenol	<0.649	<0.649	<0.649	<0.649	10
2,4-Dichlorophenol	<0.314	<0.314	<0.314	<0.314	10
2,4-Dimethylphenol	<0.649	<0.649	<0.649	<0.649	10
4,6-Dinitro-o-cresol	<1.44	<1.44	<1.44	<1.44	50
2,4-Dinitrophenol	<1.61	<1.61	<1.61	<1.61	50
2-Nitrophenol	<1.67	<1.67	<1.67	<1.67	20
4-Nitrophenol	<7.2	<2.36	<2.36	<2.36	50
p-Chloro-m-cresol	<1.57	<1.57	<1.57	<1.57	10
Pentachlorophenol	<0.234	<0.234	<0.234	<0.234	5
Phenol	<0.423	<0.423	<0.423	<0.423	10
2,4,6-Trichlorophenol	<1.42	<1.42	<1.42	<1.42	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: 007Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Acenaphthene	<1.39	<1.39	<1.39	<1.39	10
Acenaphthylene	<1.41	<1.41	<1.41	<1.41	10
Anthracene	<1.5	<1.5	<1.5	<1.5	10
Benzidine	<20.	<20.	<20.	<20.	50
Benzo(a)anthracene	<0.173	<0.173	<0.173	<0.173	5
Benzo(a)pyrene	<0.364	<0.364	<0.364	<0.364	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<2.04	<2.04	<2.04	<2.04	10
Benzo(ghi)perylene	<2.68	<2.68	<2.68	<2.68	20
Benzo(k)fluoranthene	<5.	<5.	<5.	<5.	5
Bis(2-chloroethoxy)methane	<1.76	<1.76	<1.76	<1.76	10
Bis(2-chloroethyl)ether	<2.16	<2.16	<2.16	<2.16	10
Bis(2-chloroisopropyl)ether	<1.79	<1.79	<1.79	<1.79	10
Bis(2-ethylhexyl)phthalate	<0.277	<0.277	<0.277	<0.277	10
4-Bromophenyl phenyl ether	<0.256	<0.256	<0.256	<0.256	10
Butylbenzyl phthalate	<0.337	<0.337	<0.337	<0.337	10
2-Chloronaphthalene	<0.462	<0.462	<0.462	<0.462	10
4-Chlorophenyl phenyl ether	<1.28	<1.28	<1.28	<1.28	10
Chrysene	<0.222	<0.222	<0.222	<0.222	5
Dibenzo(a,h)anthracene	<0.246	<0.246	<0.246	<0.246	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<1.62	<1.62	<1.62	<1.62	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,3-Dichlorobenzene [m-Dichlorobenzene]	<1.44	<1.44	<1.44	<1.44	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<1.55	<1.55	<1.55	<1.55	10
3,3'-Dichlorobenzidine	<0.341	<0.341	<0.341	<0.341	5
Diethyl phthalate	<1.59	<1.59	<1.59	<1.59	10
Dimethyl phthalate	<2.5	<2.5	<2.5	<2.5	10
Di-n-butyl phthalate	0.58	<0.252	<0.252	0.439	10
2,4-Dinitrotoluene	<1.31	<1.31	<1.31	<1.31	10
2,6-Dinitrotoluene	<1.61	<1.61	<1.61	<1.61	10
Di-n-octyl phthalate	<0.373	<0.373	<0.373	<0.373	10
1,2-Diphenylhydrazine (as Azobenzene)	<1.49	<1.49	<1.49	<1.49	20
Fluoranthene	<1.59	<1.59	<1.59	<1.59	10
Fluorene	<1.63	<1.63	<1.63	<1.63	10
Hexachlorobenzene	<0.307	<0.307	<0.307	<0.307	5
Hexachlorobutadiene	<1.	<1.	<1.	<1.	10
Hexachlorocyclopentadiene	<10.	<10.	<10.	<10.	10
Hexachloroethane	<0.526	<0.526	<0.526	<0.526	20
Indeno(1,2,3-cd)pyrene	<2.29	<2.29	<2.29	<2.29	5
Isophorone	<1.64	<1.64	<1.64	<1.64	10
Naphthalene	<2.5	<2.5	<2.5	<2.5	10
Nitrobenzene	<1.66	<1.66	<1.66	<1.66	10
N-Nitrosodimethylamine	3.07	<2.02	<2.02	<2.02	50
N-Nitrosodi-n-propylamine	<2.88	<2.88	<2.88	<2.88	20
N-Nitrosodiphenylamine	<1.81	<1.81	<1.81	<1.81	20
Phenanthrene	<1.42	<1.42	<1.42	<1.42	10
Pyrene	<0.178	<0.178	<10.	<0.178	10
1,2,4-Trichlorobenzene	<1.61	<1.61	<1.61	<1.61	10

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: 007

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
	19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Aldrin	<0.00113	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.00142	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.00389	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.00299	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.00245	-	-	-	0.05
Chlordane	<0.103	-	-	-	0.2
4,4'-DDT	<0.00379	-	-	-	0.02
4,4'-DDE	<0.00109	-	-	-	0.1
4,4'-DDD	<0.000814	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.000953	-	-	-	0.02
Endosulfan I (alpha)	<0.00107	-	-	-	0.01
Endosulfan II (beta)	<0.00122	-	-	-	0.02
Endosulfan sulfate	<0.00112	-	-	-	0.1
Endrin	<0.00156	-	-	-	0.02
Endrin aldehyde	<0.00118	-	-	-	0.1
Heptachlor	<0.00446	-	-	-	0.01
Heptachlor epoxide	<0.00134	-	-	-	0.01
PCB 1242	<0.0521	<0.0524	<0.0522	<0.0526	0.2
PCB 1254	<0.0655	<0.0659	<0.065	<0.0661	0.2
PCB 1221	<0.0521	<0.0524	<0.0522	<0.0526	0.2
PCB 1232	<0.0521	<0.0524	<0.0522	<0.0526	0.2
PCB 1248	<0.0521	<0.0524	<0.0522	<0.0526	0.2
PCB 1260	<0.0655	<0.0659	<0.0656	<0.0661	0.2
PCB 1016	<0.0521	<0.0524	<0.0522	<0.0526	0.2
Toxaphene	<0.0769	-	-	-	0.3

\* Indicate units if different from µg/L.

Attachment: N/A

#### TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						



**TABLE 13 (HAZARDOUS SUBSTANCES)**

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **007**

Samples are (check one): ☒ Composite ☐ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
		19-Dec-24	25-Dec-24	2-Jan-25	10-Jan-25	
Vanadium, total	7440-62-2	6.39	5.5	5.19	6.65	200.8
Acetaldehyde	75-07-0	31.2	-	-	-	8315A
Methanol	67-56-1	<2270	-	-	-	8015D
Styrene	100-42-5	<0.619	<0.619	<0.619	<0.619	624.1 [1]
o-Xylene	95-47-6	<0.502	-	-	-	624.1
m/p-Xylene	108-38-3 106-42-3	<1.24	-	-	-	624.1
Vinyl acetate	108-05-4	<2.14	-	-	-	624.1 [1]
Zirconium	7440-67-7	<0.675	-	-	-	6020
Crotonaldehyde	4170-30-3	-	-	-	-	-
[1] Lab is accredited for 8260.						

# INDUSTRIAL WASTEWATER PERMIT APPLICATION

## WORKSHEET 4.0: RECEIVING WATERS

This worksheet is **required** for all TPDES permit applications.

### Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: N/A
2. The distance and direction from the outfall to the drinking water supply intake: N/A

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

### Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: The immediate receiving water for Outfalls 001-009 is an unnamed freshwater ditch that becomes tidally influenced near its confluence with Upper San Jacinto Bay. Outfall 010 (not yet constructed) would discharge directly into Upper San Jacinto Bay, whose width is ~4100 feet.

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: N/A

- c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: N/A

### Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☒ Yes (Outfall 010) ☒ No (Outfalls 001-009)

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

## Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

Responses for Items 4-5 apply to Outfalls 001-009.

- a. Name of the immediate receiving waters: Unnamed ditch
- b. Check the appropriate description of the immediate receiving waters:
- ☐ Lake or Pond
    - Surface area (acres): N/A
    - Average depth of the entire water body (feet): N/A
    - Average depth of water body within a 500-foot radius of the discharge point (feet): N/a
  - ☒ Man-Made Channel or Ditch
  - ☒ Stream or Creek
  - ☐ Freshwater Swamp or Marsh
  - ☐ Tidal Stream, Bayou, or Marsh
  - ☐ Open Bay
  - ☐ Other, specify: N/A

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c – 4.g below:

- c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- ☐ Intermittent (dry for at least one week during most years)
- ☐ Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- ☒ Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- ☐ USGS flow records
- ☒ personal observation
- ☐ historical observation by adjacent landowner(s)
- ☐ other, specify: N/A

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: The unnamed ditch flows into San Jacinto Bay in Segment No. 2427 of the Bays and Estuaries.
- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

☒ Yes      ☐ No

If **yes**, describe how: The small unnamed ditch empties into the much larger, wider San Jacinto Bay.

- f. General observations of the water body during normal dry weather conditions: See below.

Date and time of observation: See below.

Outfall 001

Date: 2/18/2025

Time: 11:50 AM

Weather: Partly sunny and 73 / 70 °F

There was routine flow from Outfall 001. No discharge of floating solids or visible foam and no discharge of visible oil. No signs of contamination or other irregularities around the outfall.

Outfall 003

Date: 2/18/2025

Time: ~12:00 PM

Weather: Partly sunny and 73 / 70 °F

There was no dry weather discharge from Outfall 003.

Outfall 004

Date: 2/18/2025

Time: 12:46 PM

Weather: Partly sunny and 73 / 70 °F

There was routine flow from Outfall 004. No discharge of floating solids or visible foam and no discharge of visible oil. No signs of contamination or other irregularities around the outfall.

Outfall 005

Date: 2/18/2025

Time: 12:53 PM

Weather: Partly sunny and 73 / 70 °F

There was dry weather flow from Outfall 005 at a moderate rate with no visible changes. No discharge of floating solids or visible foam and no discharge of visible oil. No signs of contamination or other irregularities around the outfall.

Outfall 006

Date: 2/18/2025

Time: 11:30 AM

Weather: Partly sunny and 73 / 70 °F

There was dry weather flow from Outfall 006 at a moderate rate with no visible changes. No discharge of floating solids or visible foam and no discharge of visible oil. No signs of contamination or other irregularities around the outfall.

Outfall 007

Date: 2/18/2025

Time: 12:14 PM

Weather: Partly sunny and 73 / 70 °F

There was routine flow from Outfall 007. No discharge of floating solids or visible foam and no discharge of visible oil. No signs of contamination or other irregularities around the outfall.

g. The water body was influenced by stormwater runoff during observations.

☐ Yes    ☒ No    If **yes**, describe how: N/A

## Item 5. General Characteristics of Water Body (Instructions, Page 81)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> oil field activities           | <input type="checkbox"/> urban runoff               |
| <input type="checkbox"/> agricultural runoff            | <input type="checkbox"/> septic tanks               |
| <input checked="" type="checkbox"/> upstream discharges | <input type="checkbox"/> other, specify: <u>N/A</u> |

b. Uses of water body observed or evidence of such uses (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> livestock watering     | <input type="checkbox"/> industrial water supply    |
| <input type="checkbox"/> non-contact recreation | <input type="checkbox"/> irrigation withdrawal      |
| <input type="checkbox"/> domestic water supply  | <input type="checkbox"/> navigation                 |
| <input type="checkbox"/> contact recreation     | <input type="checkbox"/> picnic/park activities     |
| <input type="checkbox"/> fishing                | <input type="checkbox"/> other, specify: <u>N/A</u> |

c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

- ☐ **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional
- ☐ **Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☒ **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid
- ☐ **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

# INDUSTRIAL WASTEWATER PERMIT APPLICATION

## WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

### Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

a. Is this a new permit application or an amendment permit application?

☒ Yes ☐ No

b. Does or will the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If **yes** to either Item 1.a or 1.b, attach a solids management plan. **Attachment:** T-4 Domestic Sewage Sludge Management Plan

### Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

- ☐ Permitted landfill
- ☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
- ☐ Registered land application site, attach Form TCEQ-00565
- ☐ Processed by the permittee, attach Form TCEQ-00744
- ☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
- ☒ Transported to another WWTP
- ☐ Beneficial land application, attach Form TCEQ-10451
- ☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

**Attachment:** N/A

b. Provide the following information for each disposal site:

Disposal site name: Gulf Coast Authority Washburn Tunnel Facility (or other TCEQ permitted wastewater treatment facility)

TCEQ Permit/Registration Number: WQ0001740000

County where disposal site is located: Harris

c. Method of sewage sludge transportation:

☒ truck    ☐ train    ☐ pipe    ☐ other: N/A

TCEQ Hauler Registration Number: Texas Outhouse, Registration No. 22739 (or other TCEQ registered sludge transporter)

d. Sludge is transported as a:

☐ liquid    ☒ semi-liquid    ☐ semi-solid    ☐ solid

e. Purpose of land application:    ☐ reclamation    ☐ soil conditioning    ☒ N/A

f. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

**Attachment:** T-4 Domestic Sewage Sludge Management Plan

### Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- ☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
- ☐ Processed by the permittee, attach Form TCEQ-00744
- ☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
- ☐ Beneficial land application, attach Form TCEQ-10451
- ☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

**Attachment:** N/A

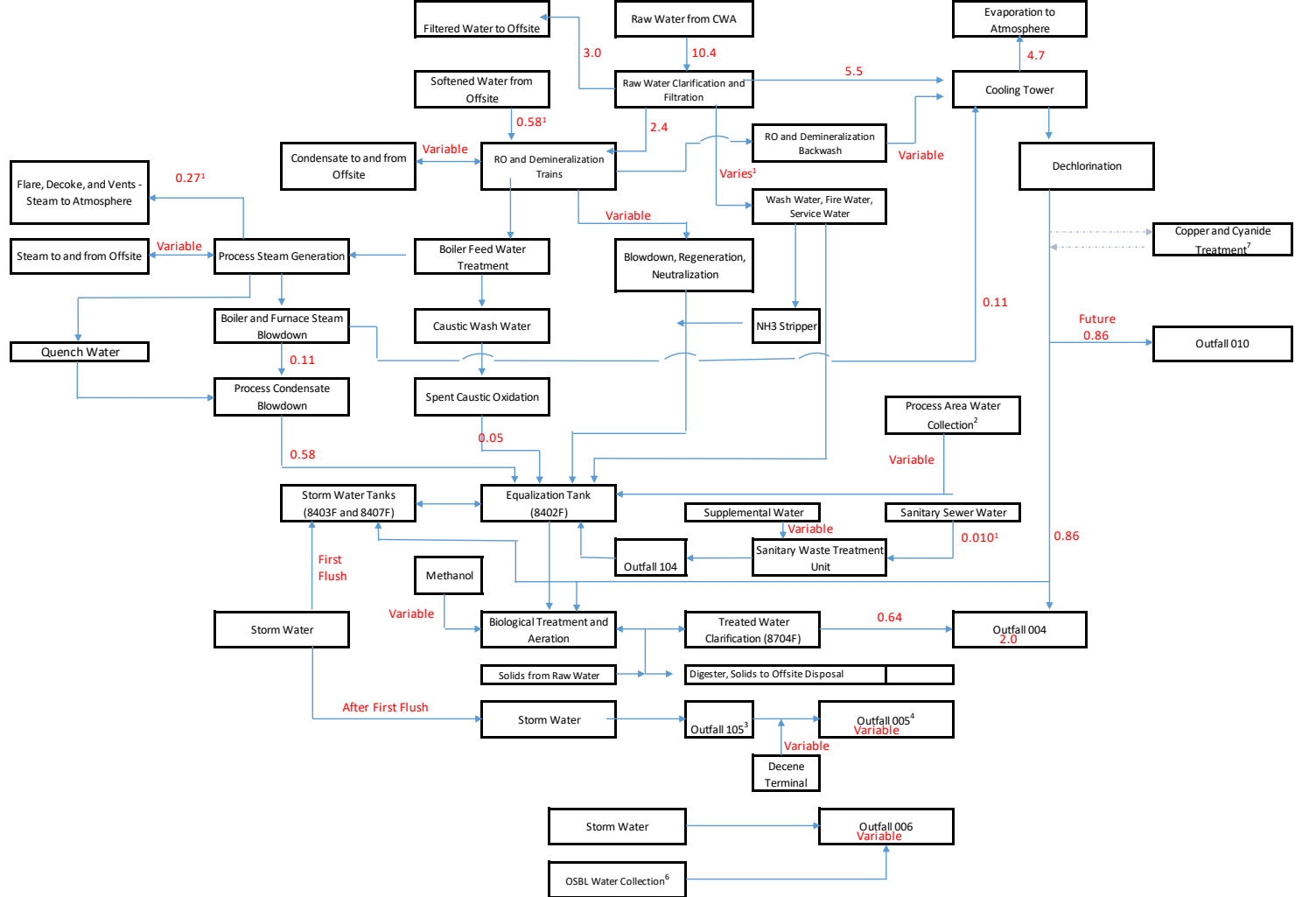
**NOTE:** New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit**. New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

**Table 3. Wastewater Sources and Flows by Outfall**

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1,2] and Percent of Production
001		Process Wastewater	1.624	62.5%	40 CFR 414, Subpart D (100%)
		AB-III Process Wastewater	0.150		
		AB-III Process Washdown	0.233		
		AB-III Fly-Knife Water	0.080		
		Q1 Process Wastewater	0.090		
		Q1 Process Washdown	0.233		
		LB-1 Process Wastewaters	0.578		
		Stormwater [3][4]	0.260	37.1%	N/A
		Utility Wastewater	0.965		
		Tempered and Chilled Water	0.468		
		RO Unit	0.250		
		AB-III Cooling Tower	0.052		
		Q1 Cooling Tower	0.052		
		LB-1 Cooling Tower	0.052		
		Boiler Blowdown	0.050		
		Fire Water	0.040		
		Miscellaneous (Eye Wash Stations, Lab)	0.001		
	101	Sanitary Wastewater (Sanipack 101)	0.010	0.4%	
	Outfall 001 Total		2.60	100%	
003		Same wastewaters as Outfall 001	Intermittent and variable	N/A	40 CFR 414, Subpart D
004		Process Wastewater	0.63	31.5%	40 CFR 414, Subpart F (100%)
		Process Condensate Blowdown	0.58		
		Spent Caustic Oxidation	0.05		
		Stormwater and Miscellaneous Flows [3][4]	Varies	43.0%	
		Utility Wastewater	0.86		
		Olefins Cooling Tower	0.86		
		Wash Water, Fire Water, Service Water	Varies		
		RO and Demineralization Blowdown, Regeneration, Neutralization	Varies		
		Miscellaneous	Varies		
		Other Non-process Wastewaters [5][6]	0.50	25.0%	
	104	Sanitary Wastewater	0.01	0.5%	
	Outfall 004 Total [7]		2.00	100%	N/A
005	105	Miscellaneous utility wastewaters, groundwater infiltration, de minimis spill clean-up waer, Decene Terminal wastewaters	Intermittent and variable	N/A	
		Stormwater [4]			
		Utility Wastewater			
		Sanitary Wastewater (via Outfall 104)			
006		Stormwater, utility wastewater, de minimis spill clean-up water	Intermittent and variable	N/A	
007		Process Wastewater	0.643	40.2%	40 CFR 414, Subpart D (PAO) (11.7%)
		AA Process	0.024		
		VAM Process	0.346		
		PAO Sumps and Catch Basin	0.058		
		Tank Farm Acid Scrubbers	0.041		
		Unit Storm Water Sewers (VAM, AA, PAO) [3][4]	0.161		
		Chemical Loading Sump	0.013	21.6%	40 CFR 414, Subpart F (AA, VAM) (88.3%)
		Utility Wastewater	0.346		
		AA Cooling Tower Blowdown	0.204		
		VAM Cooling Tower Blowdown	0.142		
		Other Non-process Wastewaters [5]	0.600	37.5%	
		Sanitary Wastewater	0.011	0.7%	N/A
	207	PAO Sanipack	0.0036		
	307	Acetyls Admin Sanipack	0.0036		
	407	Chemical Loading Sanipack	0.0036		
Outfall 007 Total [7]		1.60	100%		
008		Stormwater, Decanted Water from Biosolids (from Landfarm)	Intermittent and variable	N/A	
009		Stormwater [4], utility wastewaters from unit storm water sewers (VAM, AA, PAO)	Intermittent and variable	N/A	
010	Olefins Cooling Tower (current permit)		0.860	100%	
	Option 1 - all Olefins Unit wastewater (Outfall 004)		2.000		
	Option 2 - Outfalls 004 and 005 wastewaters		2.000		
	Option 3 - Outfalls 004, 005, and 007 wastewaters		3.600		
Notes					
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins				
[2]	40 CFR 414, Subpart F - Organic Chemicals, Plastics, and Synthetic Fibers, Commodity Organic Chemicals				
[3]	Stormwater that is potentially contaminated.				
[4]	Construction stormwater included in flows.				
[5]	Non-process wastewaters such as hydrostatic test water, fire system test water, service water, potable water, demineralized water, steam condensate, de minimis spill clean-up water, raw water, air conditioner condensate, water decanted from biosolids, and commissioning wastewaters.				
[6]	Includes laboratory wastewater.				
[7]	Includes amendment request to increase flow limit.				
N/A	Not applicable				







<sup>1</sup>Variable

<sup>2</sup>Non-process wastewaters such as hydrostatic test water, fire system test water, service water, potable water, demineralized water, steam condensate, de minimis spill clean-up water, raw water, air conditioner condensate, water decanted from biosolids, and commissioning wastewaters.

<sup>3</sup>Can include Potable Water, Demineralized Water, and previously monitored effluent (treated domestic wastewater from Sanitary Package 104).

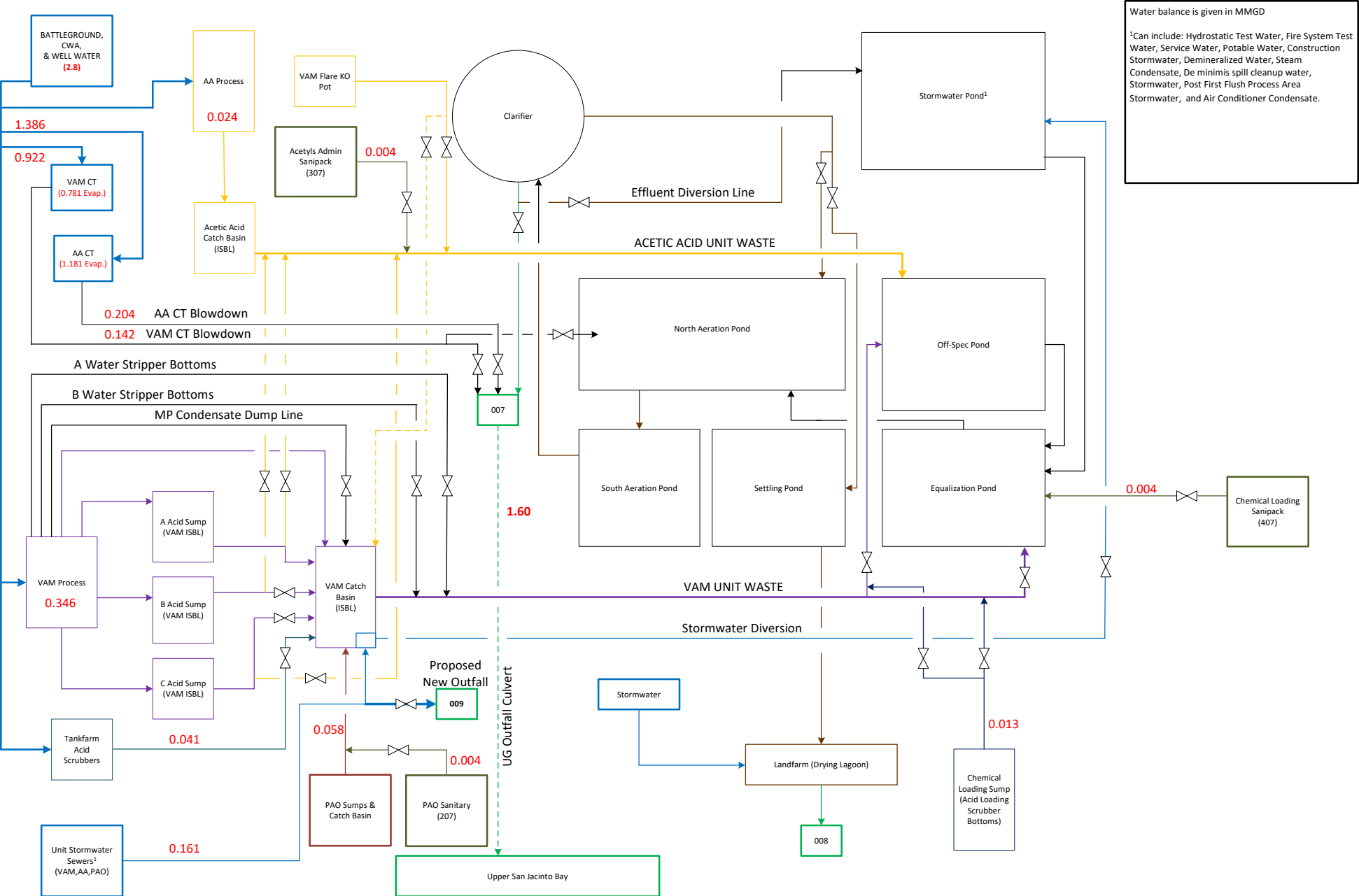
<sup>4</sup>Can include Utility Wastewater, Post First Flush Process Area Stormwater, Treated Sanitary Wastewater, Hydrostatic Test Water, Fire System Test Water, Service Water, Potable Water, Construction Stormwater, Demineralized Water, Steam Condensate, De Minimis Spill Cleanup Water, Groundwater Infiltration, Raw Water, and Wastewater from the Decene Terminal.

<sup>5</sup>Can include Treated Sanitary Wastewater, Hydrostatic Test Water, Fire System Test Water, Service Water, Potable Water, Construction Stormwater, Demineralized Water, Steam Condensate, De Minimis Spill Cleanup Water, Stormwater, and Raw Water.

<sup>6</sup>C4 Spheres, Flare, C4 Sump, Etc.

<sup>7</sup>Copper and cyanide treatment options may be evaluated and used as circumstances dictate. The system(s) may also be offline for maintenance purposes.

**Figure 2. Olefins Wastewater Flow Diagram**



**Figure 3. Acetyls Wastewater Flow Diagram**

**Attachment A-3**  
**Outfall Photos**  
**Equistar Chemicals La Porte Complex**



**Photo 1. Outfall 001 at Parshall flume.  
Discharge exits to underground pipe.**



**Photo 2. Outfall 003 at pond exit weir.**



**Photo 3. Upstream of Outfalls 001 and 003.**



**Photo 4. Downstream of Outfalls 001 and 003.**



**Attachment A-3  
Outfall Photos  
Equistar Chemicals La Porte Complex**



**Photo 5. Outfall 004 at Parshall flume.**



**Photo 6. Outfall 004 in foreground. Outfall 005 center left. Ditch in background, upstream (left), downstream (right).**



**Photo 7. Outfall 005**



**Photo 8. In foreground, Outfall 005 (left) and Outfall 004 (right). Ditch in background, upstream (left) and downstream (right).**



**Attachment A-3  
Outfall Photos  
Equistar Chemicals La Porte Complex**



**Photo 9. Outfall 006 at stairs, discharge in foreground.**



**Photo 10. Outfall 006 at stairs, downstream in background.**



**Photo 11. Outfall 007 at Parshall flume. Discharge exits to underground pipe.**



**Photo 12. Ditch downstream of Outfall 008, flow is towards upper left.**



**Attachment A-3  
Outfall Photos  
Equistar Chemicals La Porte Complex**



**Photo 13. Outfall 009 (proposed), looking upstream at in-plant ditch.**



**Photo 14. Outfall 009 (proposed), looking downstream at in-plant ditch.**



**Photo 15. Outfall 010 (proposed), looking upstream.**



**Photo 16. Outfall 010 (proposed), looking downstream.**

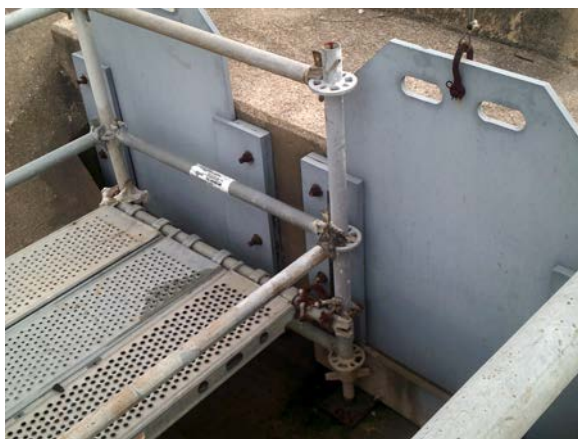
**Attachment A-3  
Outfall Photos  
Equistar Chemicals La Porte Complex**



**Photo 17. Outfall 101**



**Photo 18. Outfall 104**



**Photo 19. Outfall 105**



**Photo 20. Outfall 207**



**Attachment A-3**  
**Outfall Photos**  
**Equistar Chemicals La Porte Complex**

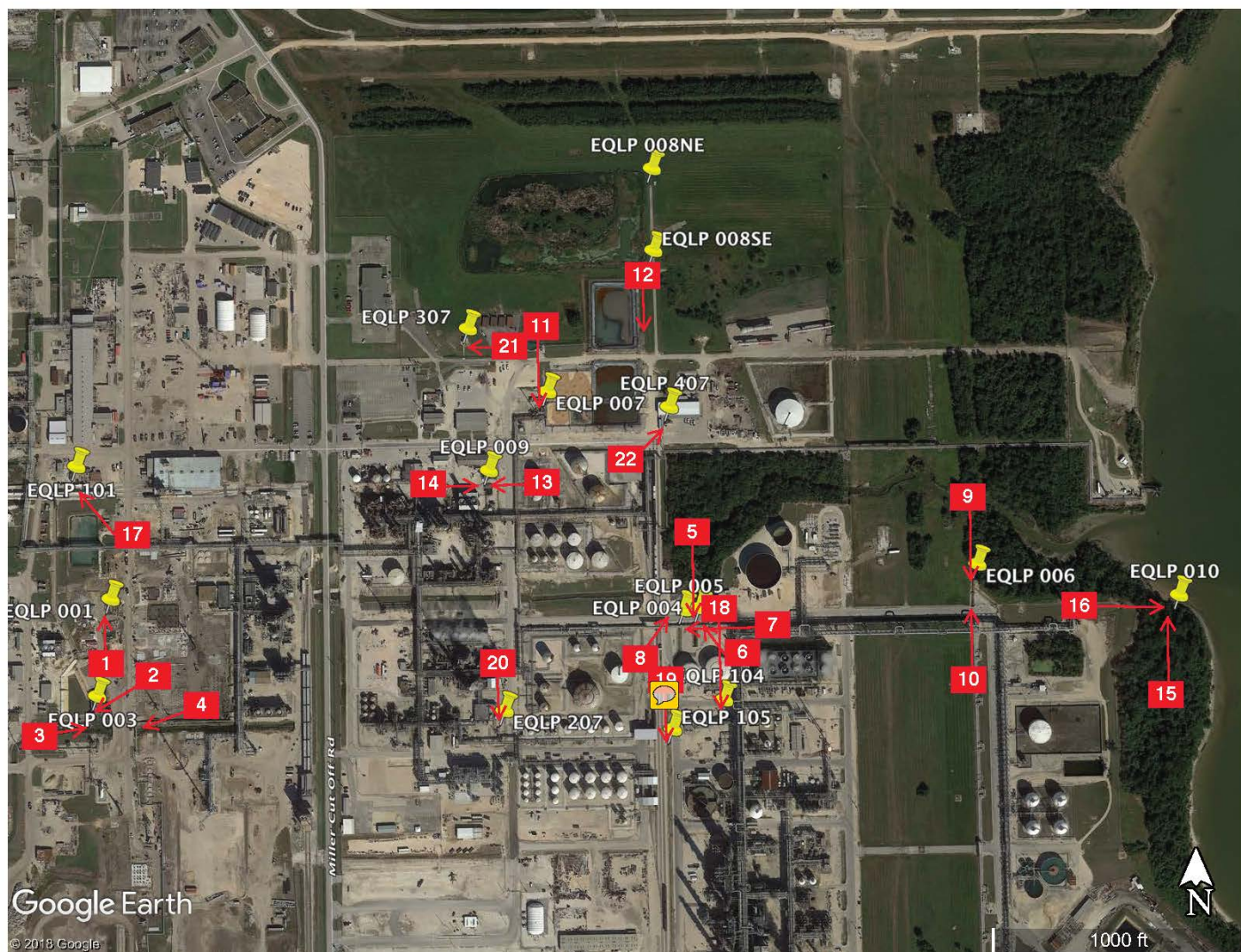


**Photo 21. Outfall 307**



**Photo 22. Outfall 407**

**Attachment A-3**  
**Outfall Photos**  
**Equistar Chemicals La Porte Complex**



**Aerial Showing Location of Outfall Photos**

**ATTACHMENT T-1**  
**EQUISTAR CHEMICALS LA PORTE COMPLEX**  
**FACILITY DESCRIPTION**  
**TPDES PERMIT No. WQ0004013000**

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Olefins Unit.....	3
<b>LyondellBasell Acetyls, LLC Facility .....</b>	<b>3</b>
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Vinyl Acetate Monomer Unit .....	4
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# **EQUISTAR CHEMICALS LA PORTE COMPLEX**

## **FACILITY DESCRIPTION**

### **TPDES PERMIT NO. WQ0004013000**

This document has been prepared as a part of the 2025 TPDES Permit No. WQ0004013000 renewal application and contains a description of the Equistar Chemicals La Porte Complex in relation to its wastewater discharge, including, outfall locations, discharges through the outfalls, wastewater and stormwater management, and applicability of national effluent guidelines.

Equistar Chemicals, LP and the LyondellBasell Acetyls, LLC are co-permittees for TPDES Permit No. WQ0004013000. LYB refers to both companies collectively.

## **FACILITY OVERVIEW**

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The Equistar Chemicals La Porte Complex consists of three operating units: (1) Olefins, (2) Polymers, and (3) Acetyls. The facility produces ethylene, propylene, low-density polyethylene, linear low-density polyethylene, high-density polyethylene, acetic acid, and vinyl acetate monomer. Another company located on-site, INEOS, operates a polyalphaolefins (PAO) unit that makes synthetic oil.

Raw materials, intermediates, and final products associated with the complex are listed in Table 1.

## **EQUISTAR CHEMICALS, LP FACILITY**

The Equistar facility is divided into two major operations: (1) Polymers and (2) Olefins.

### **Polymers Unit**

The Polymers Unit consists of three production units, AB-III, Q1, and LB1.

AB-III utilizes ethylene and co-monomers in the presence of a peroxide initiator to produce low density polyethylene. Feedstock undergoes compression before entering the reactor. The unreacted ethylene is flashed from the molten polymer in the high pressure separator. The molten polymer is discharged from the high pressure separator to the extrusion hopper. The molten polymer flows to the bottom of the extrusion hopper and into the product extruder. The product extruder pelletizes the molten polymer. The pellets are then passed to a centrifugal dryer. After drying, the pellets are transferred to the silo farm for loading into railcars.

Q1 utilizes ethylene, hydrogen, and co-monomers in the presence of a catalyst to produce linear low density polyethylene. Water and impurities are removed from the ethylene and co-monomer before they are fed to the unit reactor. Catalyst and catalyst modifiers are added to the reactor to form the linear low density polyethylene powder. The linear low density polyethylene powder is then purged of excess hydrocarbons, mixed with additives, heated, and pelletized. The pellets are then loaded into railcars.

LB1 utilizes ethylene, hydrogen, and hexene comonomer in the presence of a catalyst, co-catalyst, and catalyst modifier to produce high density polyethylene (HDPE) within a two-reactor system.



Propane is used as a motive gas within both reactors. Hydrocarbon feeds are cleaned of water and other impurities in the LB1 purification area before being introduced to the reactors. Depending on the product type, one or both reactors can be used to create HDPE powder. Upon exiting the reactor system, the HDPE powder is degassed of residual hydrocarbon before being mixed with the additives, heated, and pelletized. The pellets are then loaded into railcars.

The Polymers Unit also has typical ancillary operations associated with the major manufacturing processes, which include loading/unloading, equipment maintenance, utilities, laboratories, and wastewater treatment.

### **Olefins Unit**

The Olefins Unit receives hydrocarbon feedstock that is fed into pyrolysis furnaces. The pyrolysis furnaces heat the feedstock to a high temperature where it cracks into alkenes (olefins) and other components.

The process effluent from the furnaces is quenched and scrubbed with water. Some pyrolysis gasoline (Pygas) is removed as a product during water scrubbing. The quenched gases are compressed, dried, and cooled prior to beginning a series of purification/distillation steps. A hydrogen-rich stream from the final chilling step is further purified to produce hydrogen product.

The purification section consists of a demethanizer, deethanizer, acetylene recovery unit (ARU), depropanizer, methyl acetylene propadiene conversion unit (MAPD), debutanizer, C3 splitter, and C2 splitter. This equipment separates the process gas stream into acetylene, ethylene, propylene, mixed C4s, and Pygas products. Ethane and propane recovered during distillation and separation are recycled as feedstock into the pyrolysis furnaces.

Periodically, carbon (coke) deposits in the furnace tubes and must be removed. The decoking operation produces a waste coke that is shipped off-site for disposal.

Most products are sent off-site via pipeline, except for Pygas and C4s, which are sent to storage tanks. From the storage tanks, Pygas and C4s are loaded into barges for shipment to customers. C4s are also sent off-site via pipeline.

The Olefins Unit also has typical ancillary operations associated with the major manufacturing processes, which include loading/unloading, equipment maintenance, utilities, laboratories, and wastewater treatment.

## **LYONDELLBASELL ACETYL, LLC FACILITY**

The LyondellBasell facility has two major operational units, the Acetic Acid (AA) Unit and the Vinyl Acetate Monomer (VAM) Unit.

### **Acetic Acid Unit**

The Acetic Acid Unit produces acetic acid through the continuous reaction of carbon monoxide with methanol in the presence of a catalyst and promoter. The carbon monoxide and methanol are fed to a reactor where crude acetic acid is formed. Liquids from the reactor are released to the flash tank, and flashed vapors are routed to purification. Liquids from the flash tank are recycled back to the reactor. Overheads from the reactor are routed to the light ends recovery system and

reprocessed. The final acetic acid product is sent to storage tanks. From the storage tanks, acetic acid is either piped to the VAM Unit or loaded to truck, rail, or barge for shipment to customers. Water with small amounts of organic impurities from miscellaneous equipment cleaning and chemical sewers is generated.

### **Vinyl Acetate Monomer Unit**

The Vinyl Acetate Monomer Unit produces vinyl acetate monomer through the continuous reaction of ethylene, oxygen, and acetic acid in the presence of a catalyst. The process consists of three reaction trains operating independently and in parallel feeding to two purification lines, which handle the combined output of the three reaction trains.

The purification unit separates water, acetic acid, VAM product, and any organic impurities. Purified VAM product is pumped to day storage tanks for product shipment by rail, truck, and/or barge. Acetic acid recycle from the purification section is pumped back to the reactor section. Water with small amounts of organic impurities is generated.

In addition, a co-located facility operated by INEOS manufactures polyalphaolefins and generates associated wastewaters that are routed to the Acetyls wastewater system.

The Acetic Acid and VAM units also have ancillary operations, which include loading/unloading, equipment maintenance, utilities, and wastewater treatment.

## **WATER SUPPLY**

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The Equistar Olefins operation utilizes water purchased from Coastal Water Authority (CWA) to operate the Olefins unit.

The Equistar Polymers operation utilizes a combination of water purchased from Battleground Water Supply and on-site well water to operate the AB-III, Q1, and LB1 units. Battleground Water Supply is a partnership of several local industrial facilities, including LYB, that provides water from the CWA. Battleground Water Supply has Public Water System (PWS) ID TX1013432.

The LyondellBasell Acetyls facility utilizes a combination of water from CWA, Battleground Water Supply, and on-site well water to operate both the Acetic Acid and VAM units.

The source of water from the CWA is the Trinity River. Water is withdrawn from the Trinity River into the CWA Main Canal. From the Main Canal, water is transported to the Lynchburg Reservoir and thence to the La Porte site. The CWA operates the Trinity River Conveyance System for the City of Houston. The City of Houston is a water supplier for residential, commercial, and industrial customers. The Trinity River intake is listed in the TCEQ's Public Water System (PWS) database under the City's PWS number TX1010013 as Intake 1 (ID S1010013A).

## **WASTEWATER SOURCES AND OUTFALLS**

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Wastewater flow diagrams for the three production areas at the Equistar Chemicals La Porte Complex are shown in Figure 1 (Polymers), Figure 2 (Olefins), and Figure 3 (Acetyls). These flow diagrams show the wastewater sources/flows and treatment systems associated with the TPDES permit outfalls.

Wastewater sources for each outfall are summarized in Table 2. The table includes wastewaters that are currently listed for each outfall in the TPDES permit, as well as additional wastewaters that are requested in the TPDES application as amendments.

Wastewater flows to each outfall are summarized in Table 3. For each outfall, the percentage of flow for process wastewater, utility wastewater, stormwater, and sanitary wastewater is provided.

## **EQUISTAR POLYMERS WASTEWATER SYSTEM**

Figure 1 shows the routing of the various wastewaters from the Equistar Polymers operations, including the current AB-III, Q-1, and LB-1 Units. Outfalls associated with Equistar Polymers are 001, 101, and 003. Wastewaters discharged through these outfalls are listed in Tables 2 and 3.

Wastewater collected inside the battery limits of the Q-1 Unit is routed to Sump #2. Flow from Sump #2 is routed to Sump #5. Wastewaters from inside the battery limits of the AB-III Unit and LB-1 Unit are routed to Sump #5. Stormwater, including construction stormwater, is routed to both Sump #2 and Sump #5.

Flow from Sump #2 is routed to Sump #5 via a concrete conveyance. Sump #5 is pumped to Skim Pond 001 where solids can settle prior to the effluent discharge to Outfall 001. During periods of heavy rain events or when maintenance is being conducted on Outfall 001, the wastewaters from Sump #2 and from the AB-III and LB-1 Units combine in the concrete conveyance and overflow a weir to Skim Pond 003 where solids can settle prior to effluent discharge to Outfall 003.

## **EQUISTAR OLEFINS WASTEWATER SYSTEM**

Figure 2 shows the routing of the various wastewaters from the Equistar Olefins operations. Outfalls associated with Equistar Olefins are 004, 104, 005, 105, 006, and 010. Outfall 010 is a proposed discharge into San Jacinto Bay, but has not been constructed to-date. Wastewaters discharged through these outfalls are listed in Tables 2 and 3.

Wastewaters generated inside the battery limits of the Olefins Unit are collected in the Olefins sumps. The Olefins sumps are also used to manage wastewaters from the Acetyls and Polymers Units from time to time, based on the pH and hydrocarbons present in the wastewaters.

Flow from the Olefins Unit sumps is routed to the Equalization Tank (8402F). Spent caustic wash water from olefins production is treated by oxidation and pH adjusted prior to being pumped to the Equalization Tank. Cooling tower blowdown and boiler blowdown can be routed to the Equalization Tank or directly discharged to Outfall 004.

From the Equalization Tank, wastewater is routed to the Aeration and Clarification Tank (8704F), which includes an aeration section for biological treatment and clarification section for biosolids settling. Solids removed from the clarification section are dewatered in a filter press and the dewatered solids are shipped off-site for disposal. Effluent from the clarification section gravity flows to Outfall 004.

The first flush stormwater from the Equistar Olefins area is collected and routed to treatment. During heavier rains, larger volumes of first flush stormwater are routed to the Storm Water Surge Tanks (8403F and 8407F). Afterwards, stormwater from the tanks is gradually released to the

Equalization Tank. Post first flush process area stormwater can be diverted through Outfall 105 to Outfall 005.

Treated sanitary wastewater from the Olefins Sanipack (Outfall 104) is routed to external outfalls. Outfall 006 primarily discharges stormwater from outside the boundary limits of the Olefins production areas. The C4 Sump is used to contain stormwater from the tank farm area prior to discharging to Outfall 006.

Stormwater discharged through Outfalls 004, 005, 105, and 006 can include construction stormwater.

## **LYONDELLBASELL ACETYLS WASTEWATER SYSTEM**

Figure 3 shows the routing of the various wastewaters from the LyondellBasell Acetyls operations. Outfalls associated with LyondellBasell Acetyls are 007, 207, 307, 407, 008, and 009 (proposed). Wastewaters discharged through these outfalls are listed in Tables 2 and 3.

Wastewaters from inside the battery limits of the Acetic Acid Unit is routed to the Acetic Acid Sump. Wastewater from the Acetic Acid Sump and treated sanitary wastewater from the Acetyls Administration Building Sanipack (Outfall 307) are routed to the Off-Spec Pond. The Off-Spec Pond allows atypical wastewater to be blended into the Acetyls Wastewater Treatment system at a slow and controlled rate.

Wastewaters from inside the battery limits of the the Vinyl Acetate Monomer (VAM) production process is routed to the VAM Sumps. The VAM Sumps also collect wastewater from the Tank Farm scrubbers, wastewater from the INEOS PAO Catch Basin, and the treated sanitary wastewater from the PAO Sanipack (Outfall 207).

Flow from the VAM Sumps is then routed either to the Equalization Pond, Storm Water Pond, or to the Off-Spec Pond. Wastewaters from the Chemical Loading Sump are either routed to the Equalization Pond or the Off-Spec Pond. Treated sanitary wastewater from the Chemical Loading Sanipack (Outfall 407) is routed to the Equalization Pond. Wastewater from the Off-Spec Pond and the Storm Water Pond are routed to the Equalization Pond.

From the Equalization Pond, wastewater is routed to the North Aeration Pond for biological treatment. From the North Aeration Pond, wastewater is routed to the South Aeration Pond for further biological treatment. Effluent from the South Aeration Pond is routed to the Clarifier Tank where biosolids are separated from the treated wastewater. Effluent from the Clarifier Tank is either discharged to Outfall 007 or, if needed, routed back to treatment through the Storm Water Pond. Blowdown from the Acetic Acid VAM cooling towers is either routed directly to Outfall 007 or to the North Aeration Pond.

Solids from the Clarifier Tank are piped to the Settling Pond. Solids from the Settling Pond are pumped to the Landfarm (an impoundment), which is used for additional solids settling. Decant water from solids settling and stormwater from within the Landfarm is discharged through Outfall 008, which has two discharge points located at the southeast and northeast corners of the Landfarm.

Stormwater and other wastewaters collected in the VAM, AA, and PAO unit storm sewers are routed to the VAM Catch Basin if they are potentially contaminated and need to be routed to wastewater treatment. To allow the direct discharge of stormwater and non-process wastewaters



from the unit storm sewers when these wastewaters do not need treatment, proposed Outfall 009 was added to the TPDES permit in 2021.

## **DOMESTIC WASTEWATER**

There are five Sanipacks on-site for the treatment of sanitary (domestic) wastewater at the facility. Treated sanitary wastewater from the individual Sanipacks is authorized as internal Outfalls 101, 104, 207, 307, and 407 under the facility's TPDES Permit No. WQ0004013000. Currently, the Sanipacks are off-line and sanitary wastewater is transported off-site for treatment. Individual Sanipacks may be brought on-line as needed with discharge through their corresponding internal outfall (101, 104, 207, 307, 407).

## **TREATMENT CHEMICALS**

Treatment chemicals are used in the cooling tower, boiler, and water/wastewater treatment systems to maintain water quality. A list of treatment chemicals is included in the TPDES application as Attachment T-5.

## **EFFLUENT GUIDELINES**

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National effluent guidelines for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) industry at 40 CFR 414 apply to process wastewaters at the Equistar Chemicals La Porte Complex. The specific §414 subcategories that apply to the facility are identified in Table 3, which also includes the production percentages related to the subcategories for each outfall.

**Table 1. Raw Materials, Major Intermediates, and Final Products**

Outfalls 001 and 003					
Raw Materials	CAS No.	Intermediate (Includes Impurities)	CAS No.	Products	CAS No.
Methanol	67-58-1	Lube Oils	-	Polyethylene	9002-88-4
Vinyl Acetate	108-05-4	Diesel	68334-30-5		
Zinc Compounds	-	Gasoline	8006-61-9		
Isopentane	78-78-4	Petroleum Naphtha	64742-48-9		
1-Hexene	592-42-6	Acetaldehyde	75-07-0		
1-Butene	106-98-9				
Propylene	115-07-1				
Outfalls 004 and 005					
Raw Materials	CAS No.	Intermediate (Includes Impurities)	CAS No.	Products	CAS No.
Methanol	67-58-1	Vinyl Acetate	108-05-4	Pyrolysis Gasoline	68921-67-5
Dimethylformamide	68-12-2	Acetaldehyde	75-07-0	Ethylene	74-85-1
Dimethylsulfide	75-18-3	Benzene	71-43-2	Propylene	115-07-1
Sulfuric Acid	7664-93-9	Toluene	108-88-3		
Sodium Hydroxide	1310-73-2	Xylenes	1330-20-7		
		Acetic Acid	64-19-7		
		Pentanes	109-66-0		
		Dicyclopentadiene	77-73-6		
		Heavy Aromatic Solvent	68987-42-8		
Outfall 007					
Raw Materials	CAS No.	Intermediate (Includes Impurities)	CAS No.	Products	CAS No.
Acetic Acid	64-19-7	Acetaldehyde	75-07-0	Acetic Acid	64-19-7
Methanol	67-58-1	Acrolein	107-02-8	Vinyl Acetate	108-05-4
Hydroquinone	123-31-9	Crotonaldehyde	4170-30-3	Polyalphaolefin (oil)	68037-01-4
Methyl Acetate	79-20-9	Propionic Acid	79-09-4		
Methyl Iodide	74-88-4	Ethylene Glycol Diacetate	111-55-7		
Potassium Hydroxide	1310-58-3	Ethyl Acetate	141-78-6		
Propanol	71-23-8				

**Table 2. Wastewater Sources and Additions by Outfall**

Source	Outfall														
	001	003	004	005	006	007	008	009	010 [3]	101	104	105	207	307	407
Process Wastewater	x	x	x			x			Add			Add			
Utility Wastewater [1]	x	x	x	x		x			Add			x			
Treated Sanitary Wastewater	x	x	x	x		x			Add	x	x	x	x	x	x
Hydrostatic Test Water	x	x	x	x	x	x		x	Add			Add			
Fire System Test Water	x	x	x	x	x	x		x	Add			Add			
Service Water	x	x	x	x	x	x		x	Add			Add			
Potable Water	x	x	x	x	x	x		x	Add			Add			
Construction Stormwater	x	x	x	x	x	x		x	Add			x			
Demineralized Water	x	x	x	x	x	x		x	Add			Add			
Steam Condensate	x	x	x	x	x	x		x	Add			Add			
De minimis Spill Cleanup Water	x	x	x	x	x	x		x	Add			Add			
Stormwater	x	x	x	x	x	x	x	x	Add			Add			
Groundwater Infiltration				x											
Utility Decanted Water from Biosolids						x	x		Add						
Post First Flush Process Area Storm Water				x					Add			x			
Raw Water	x	x	x	x	x	x		x	Add			Add			
Wastewater from Decene Terminal			Add	x					Add			Add			
Air Conditioner Condensate	x	x	x	Add		x		x	Add			Add			
Laboratory Wastewater	x	x	x			Add			Add			Add			
Commissioning Wastewaters [2]	x	x	x	x	x	x		x	Add			Add			
Cooling Tower Blowdown									x						
Notes x - Listed in TPDES permit issued 3-18-2021. [1] Utility wastewaters may include cooling tower and boiler blowdown. [2] Commissioning wastewaters include wastewaters such as equipment wash waters and hydrostatic test water. [3] Amendment request to route other outfall wastewaters to Outfall 010. Add - Amendment request to add wastewater to existing outfall.															

**Table 3. Wastewater Sources and Flows by Outfall**

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1,2] and Percent of Production	
001		Process Wastewater	1.624	62.5%	40 CFR 414, Subpart D (100%)	
		AB-III Process Wastewater	0.150			
		AB-III Process Washdown	0.233			
		AB-III Fly-Knife Water	0.080			
		Q1 Process Wastewater	0.090			
		Q1 Process Washdown	0.233			
		LB-1 Process Wastewaters	0.578			
		Stormwater [3][4]	0.260			
		Utility Wastewater	0.965	37.1%	N/A	
		Tempered and Chilled Water	0.468			
		RO Unit	0.250			
		AB-III Cooling Tower	0.052			
		Q1 Cooling Tower	0.052			
		LB-1 Cooling Tower	0.052			
		Boiler Blowdown	0.050			
		Fire Water	0.040			
		Miscellaneous (Eye Wash Stations, Lab)	0.001			
	101	Sanitary Wastewater (Sanipack 101)	0.010	0.4%		
		Outfall 001 Total		2.60		100%
003		Same wastewaters as Outfall 001	Intermittent and variable	N/A	40 CFR 414, Subpart D	
004		Process Wastewater	0.63	31.5%	40 CFR 414, Subpart F (100%)	
		Process Condensate Blowdown	0.58			
		Spent Caustic Oxidation	0.05			
		Stormwater and Miscellaneous Flows [3][4]	Varies			
		Utility Wastewater	0.86	43.0%	N/A	
		Olefins Cooling Tower	0.86			
		Wash Water, Fire Water, Service Water	Varies			
		RO and Demineralization Blowdown, Regeneration, Neutralization	Varies			
		Miscellaneous	Varies			
		Other Non-process Wastewaters [5][6]	0.50	25.0%		
	104	Sanitary Wastewater	0.01	0.5%		
		Outfall 004 Total [7]		2.00		
005	105	Miscellaneous utility wastewaters, groundwater infiltration, de minimis spill clean-up waer, Decene Terminal wastewaters	Intermittent and variable	N/A		
		Stormwater [4]				
		Utility Wastewater				
		Sanitary Wastewater (via Outfall 104)				
006		Stormwater, utility wastewater, de minimis spill clean-up water	Intermittent and variable	N/A		

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1,2] and Percent of Production
007		Process Wastewater	0.643	40.2%	40 CFR 414, Subpart D (PAO) (11.7%)
		AA Process	0.024		
		VAM Process	0.346		
		PAO Sumps and Catch Basin	0.058		
		Tank Farm Acid Scrubbers	0.041		
		Unit Stormwater Sewers (VAM, AA, PAO) [3][4]	0.161		
		Chemical Loading Sump	0.013		
		Utility Wastewater	0.346	21.6%	N/A
		AA Cooling Tower Blowdown	0.204		
		VAM Cooling Tower Blowdown	0.142		
	Other Non-process Wastewaters [5]	0.600	37.5%		
	Sanitary Wastewater	0.011	0.7%		
	207	PAO Sanipack		0.0036	
	307	Acetyls Admin Sanipack		0.0036	
407	Chemical Loading Sanipack	0.0036			
	Outfall 007 Total [7]	1.60	100%		
008		Stormwater, Decanted Water from Biosolids (from Landfarm)	Intermittent and variable	N/A	
009		Stormwater [4], utility wastewaters from unit stormwater sewers (VAM, AA, PAO)	Intermittent and variable	N/A	
010	Olefins Cooling Tower (current permit)		0.860	100%	
	Option 1 - all Olefins Unit wastewater (Outfall 004)		2.000		
	Option 2 - Outfalls 004 and 005 wastewaters		2.000		
	Option 3 - Outfalls 004, 005, and 007 wastewaters		3.600		
Notes					
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins				
[2]	40 CFR 414, Subpart F - Organic Chemicals, Plastics, and Synthetic Fibers, Commodity Organic Chemicals				
[3]	Stormwater that is potentially contaminated.				
[4]	Construction stormwater included in flows.				
[5]	Non-process wastewaters such as hydrostatic test water, fire system test water, service water, potable water, demineralized water, steam condensate, de minimis spill clean-up water, raw water, air conditioner condensate, water decanted from biosolids, and commissioning wastewaters.				
[6]	Includes laboratory wastewater.				
[7]	Includes amendment request to increase flow limit.				
N/A Not applicable					

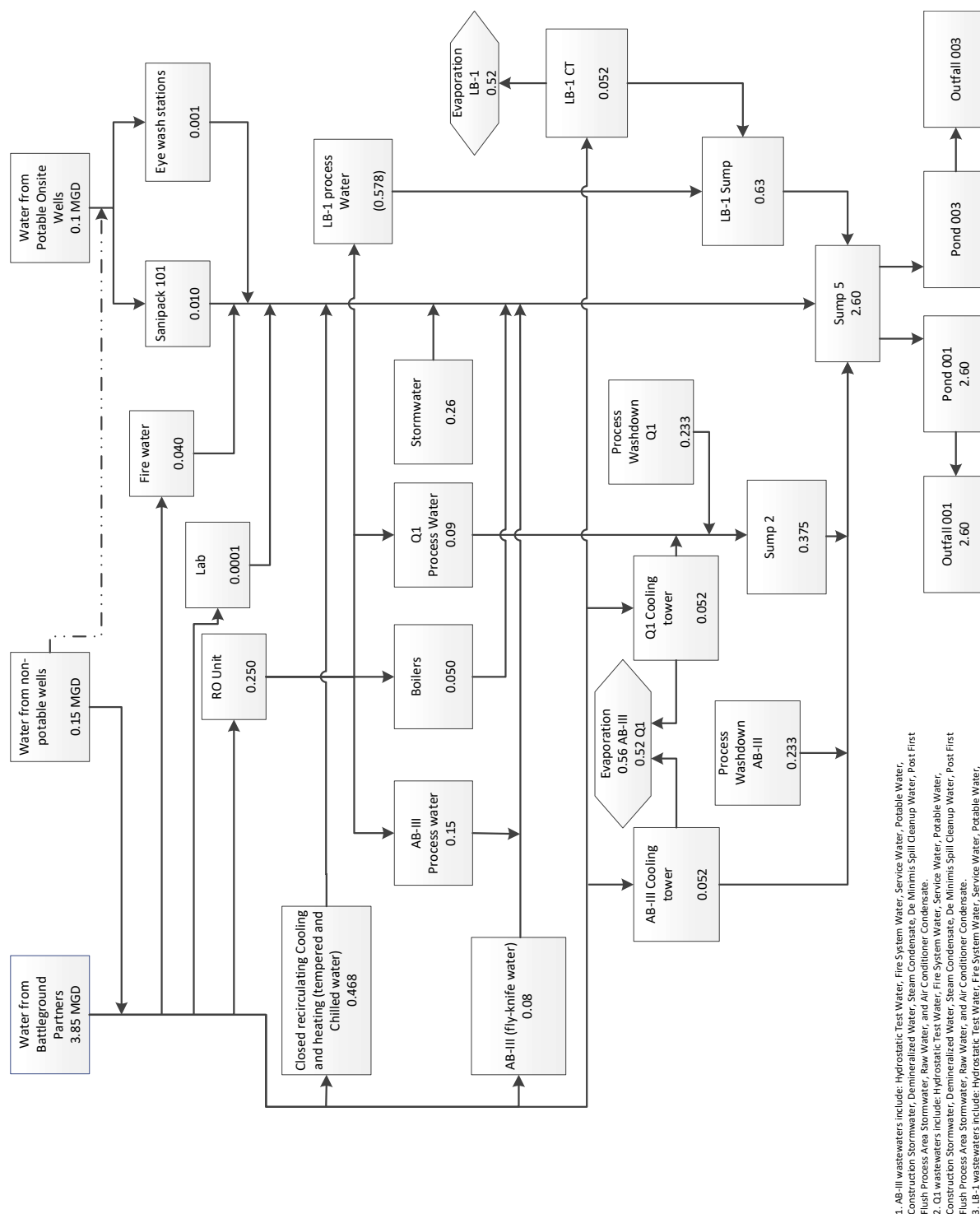
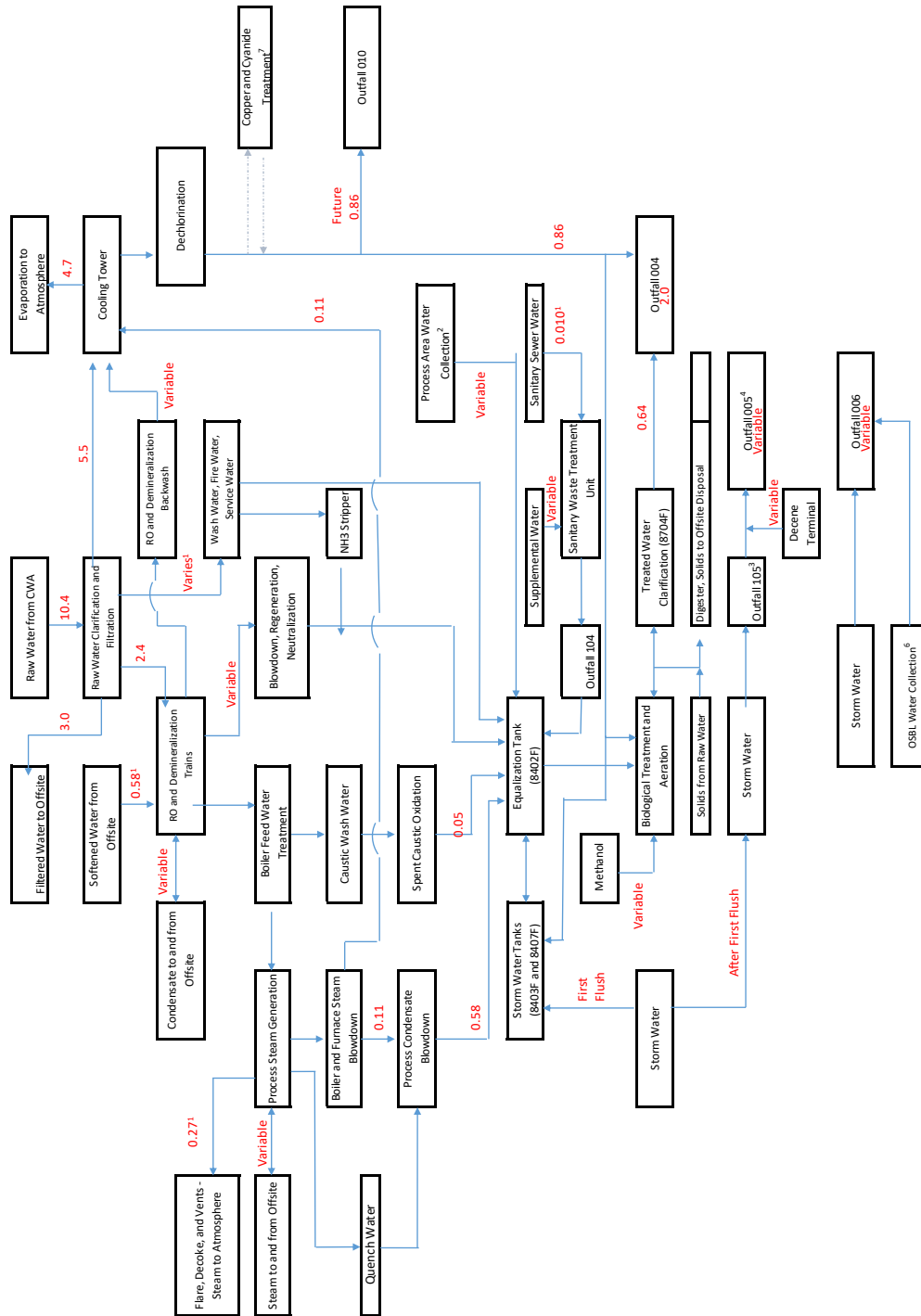


Figure 1. Polymers Wastewater Flow Diagram



<sup>1</sup>Variable  
<sup>2</sup>Non-process wastewaters such as hydrostatic test water, fire system test water, service water, potable water, demineralized water, steam condensate, de minimis spill clean-up water, raw water, air conditioner condensate, water decanted from biosolids, and commissioning wastewaters.  
<sup>3</sup>Can include Potable Water, Demineralized Water, and previously monitored effluent (treated domestic wastewater from Sanitary Package 104).  
<sup>4</sup>Can include Utility Wastewater, Post First Flush Process Area Stormwater, Treated Sanitary Wastewater, Hydrostatic Test Water, Fire System Test Water, Service Water, Potable Water, Construction Stormwater, Demineralized Water, Steam Condensate, De Minimis Spill Cleanup Water, Groundwater Infiltration, Raw Water, and Wastewater from the Decene Terminal.  
<sup>5</sup>Can include Treated Sanitary Wastewater, Hydrostatic Test Water, Fire System Test Water, Service Water, Potable Water, Construction Stormwater, Demineralized Water, Steam Condensate, De Minimis Spill Cleanup Water, Stormwater, and Raw Water.  
<sup>6</sup>C4 Spheres, Flare, C4 Sump, Etc.  
<sup>7</sup>Copper and cyanide treatment options may be evaluated and used as circumstances dictate. The system(s) may also be offline for maintenance purposes.

Figure 2. Olefins Wastewater Flow Diagram

3/19/25

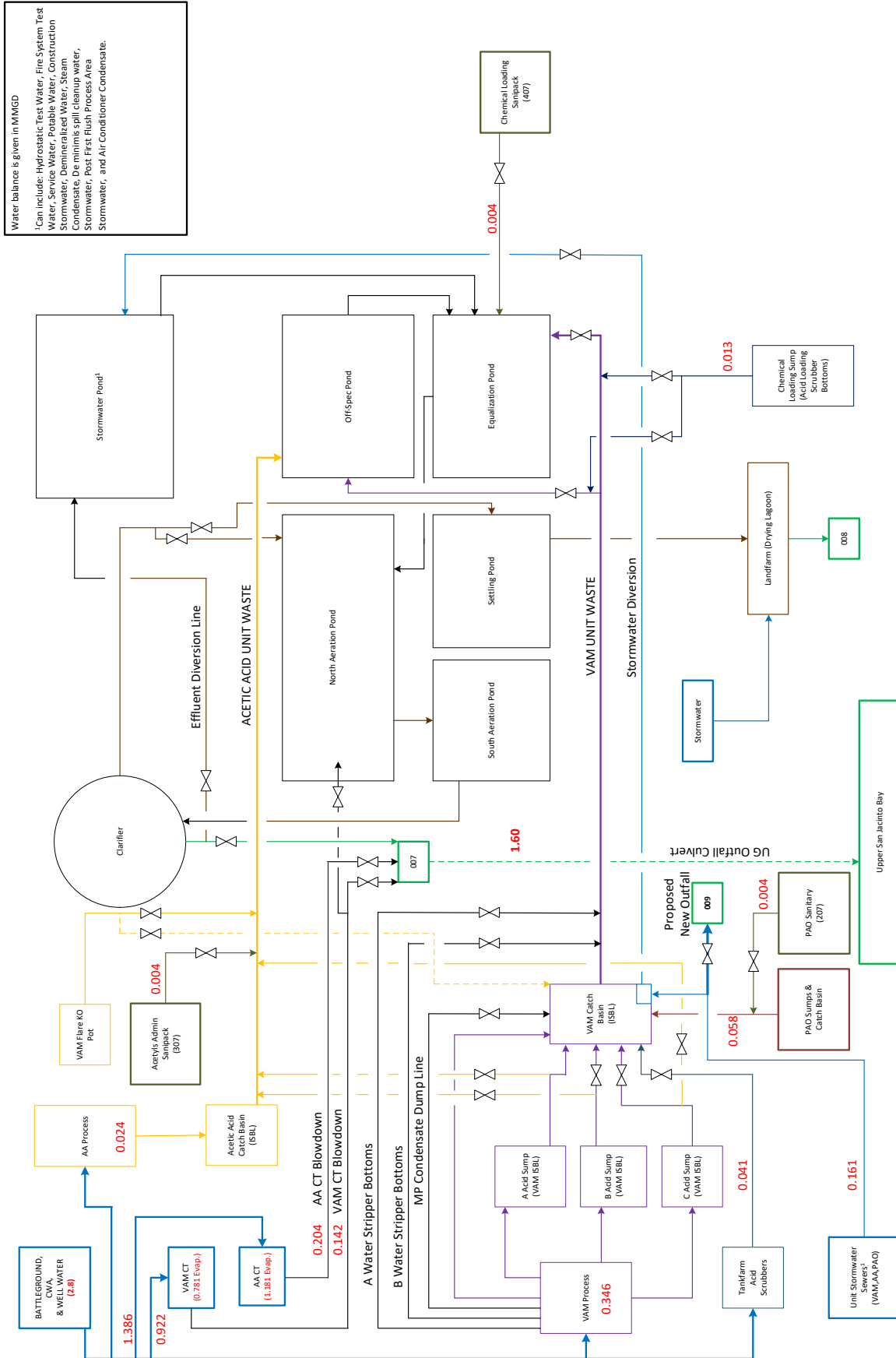


Figure 3. Acetyls Wastewater Flow Diagram



**ATTACHMENT T-3**  
**EQUISTAR CHEMICALS LA PORTE COMPLEX**  
**AMENDMENT REQUESTS**  
**TPDES PERMIT NO. WQ0004013000**

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## **EQUISTAR CHEMICALS LA PORTE COMPLEX AMENDMENT REQUESTS TPDES PERMIT NO. WQ0004013000**

Equistar Chemicals, LP and LyondellBasell Acetyls, LLC (referred here collectively as LYB) request the following amendments to TPDES Permit No. WQ0004013000 for the Equistar Chemicals La Porte Complex.

1. Include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010.
2. Include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007.
3. Increase daily average flow limit to 2.0 MGD for Outfall 004.
4. Increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007.
5. Add wastewater sources to several outfalls.
6. Remove daily average and daily maximum mass limits for aluminum from Outfall 001.
7. Remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001.
8. Remove daily maximum concentration limits for nonylphenol from Outfall 003.
9. Remove daily average concentration limits for aluminum and zinc for Outfall 003.
10. Remove daily average and daily maximum concentration limits for cyanide from Outfall 005.
11. Remove daily average and daily maximum temperature limits for Outfall 007.
12. Decrease or remove the daily average limit for dissolved oxygen from Outfall 007.
13. Remove daily average and daily maximum mass limits for ammonia from Outfall 007.
14. Remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008.
15. Change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007.
16. Authorize ultraviolet disinfection of domestic wastewaters.

Further discussion of the requested amendments is provided in the following sections.

## **1. INCLUDE OPTIONS FOR OUTFALL 010 FOR OTHER OUTFALL FLOWS, REMOVE CHLORINE LIMITS**

---

LYB requests options for Outfall 010 to include flows from Outfalls 004, 005, and/or 007. When the TPDES permit was renewed in 2021, it included a proposed Outfall 010 per LYB's request for the discharge of the Olefins Unit cooling tower blowdown. This discharge would be an alternative to discharging the blowdown together with the other Olefin Unit wastewaters through Outfall 004. Outfall 010 would discharge directly into San Jacinto Bay, but has not yet been designed or constructed.

LYB is now considering routing flows from other outfalls (004, 005, 007) through Outfall 010. The decision of which outfall flow(s) to include in the final Outfall 010 design depends in part on the expected water quality-based effluent limits (WQBELs). LYB requests that the TCEQ calculate WQBELs for the following options being considered.

	Outfalls to Re-route to Outfall 010		
Option	004	005	007
1	x		
2	x	x	
3	x	x	x

LYB also requests removal of the limits for free available chlorine from Outfall 010 for all of the options listed above. Chlorine limits were included for Outfall 010 when it was initially added to the TPDES permit in 2021 because only cooling tower blowdown was authorized for discharge and it could potentially contain chlorine from biocide treatment. With the addition of any of the outfall flows listed above, the combined flow would not be expected to contain free chlorine at levels toxic to aquatic organisms in the receiving water.

## **2. INCLUDE OPTIONS FOR WASTEWATER FROM SYNGAS FACILITY**

---

LYB requests the option to treat wastewater from the adjacent LyondellBasell Syngas facility. The syngas facility is owned by LyondellBasell Acetyls, LLC and produces syngas and methanol. Certain wastewaters from facility are discharged under the facility's own TPDES Permit No. WQ000409200 into San Jacinto Bay. Its process wastewater from methanol production (stripper tail waste stream) is authorized for discharge through its Outfall 001 via internal Outfall 101, but this wastewater is currently sent off-site for treatment with Outfall 101 remaining as a future option that has not been constructed as yet.

LYB is considering transporting the methanol stripper wastewater for treatment at the La Porte Complex. It could be treated in both the Olefins Unit wastewater system and Acetyls Unit wastewater systems and discharged with other unit wastewaters through Outfall 004 (Olefins) and Outfall 007 (Acetyls).

### **3. INCREASE FLOW LIMIT FOR OUTFALL 004**

---

LYB requests an increase in the daily average flow limit for Outfall 004 from 1.5 million gallons per day (MGD) to 2.0 MGD. This increase would facilitate handling periodic higher flows of utility wastewaters, non-process wastewaters (such as hydrotest waters), and stormwater.

### **4. INCREASE FLOW LIMITS FOR OUTFALL 007**

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LYB requests an increase in flow limits for Outfall 007 from 1.22 MGD to 1.6 MGD for the daily average and from 1.6 MGD to 2.0 MGD for the daily maximum. These increases would facilitate handling periodic higher flows of utility wastewaters, non-process wastewaters (such as hydrotest waters), and stormwater; peak flows during turnarounds/maintenance; faster work-off rates for stored stormwater to maintain freeboard in impoundments; higher flow rates with a new wastewater clarifier; and additional wastewater from the INEOS C reactor train.

### **5. ADD WASTEWATER SOURCES TO SEVERAL OUTFALLS**

---

LYB requests that wastewater sources be added to several outfalls. These additional wastewaters are identified in Attachment T-1 Facility Description, Table 2 Wastewater Sources and Additions by Outfall.

### **6. REMOVE LIMITS FOR ALUMINUM FROM OUTFALL 001**

---

LYB requests removal of the daily average and daily maximum mass limits for aluminum from Outfall 001. Limits for aluminum for Outfall 001 have been in the TPDES permit since 2003 and the current permit requires weekly monitoring. The summary of monitoring data from January 2022 – February 2025 shows that the aluminum levels are well below both the mass limits and the screening level that the TCEQ uses to determine if limits are needed in a permit.

The monitoring data show that Outfall 001 is compliant with the permit mass limits. The average effluent mass load is 6% of the daily average limit and the average maximum load is 16% of the daily maximum limit.

When evaluating whether a limit is needed in a permit, the TCEQ screens the average effluent concentration against the daily average water quality-based effluent limit (WQBEL). If the effluent is less than 70% of the WQBEL, then monitoring and permit limits are not required. The average aluminum concentration for Outfall 001 (0.104 mg/L) is only 12% of the daily average WQBEL (0.835 mg/L), which justifies the removal of monitoring and limits.

Outfall 001 Aluminum			
	Daily Average	Daily Maximum	
Permit limits (lb/d)	18.1	38.3	
Water quality-based effluent concentration (mg/L)	0.835	1.766	
Monitoring Period October 2022 – January 2025			
	lb/d	lb/d	mg/L
Number of values	28	28	126
Average	1.16	2.91	0.104
Minimum	0.3	0.4	0.015
Maximum	7.82	29.94	1.51
Average lb/d / Limit lb/d	6%	16%	-
Average mg/L / WQBEL-ave mg/L (%)	-	-	12%

## 7. REMOVE LIMITS FOR NONYLPHENOL FROM OUTFALL 001

LYB requests removal of the daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001. These limits were added to the TPDES permit in 2021 because several of the outfall analyses in the TPDES renewal application had detected results for nonylphenol. Since weekly monitoring required by the permit for nonylphenol began in April 2021, there have been approximately 200 analyses through February 2025 and there have been no detections of nonylphenol. The permit requires a minimum analytical level (MAL) or analytical sensitivity of at least 0.333 milligrams per liter (mg/L); actual laboratory detection limits were significantly more sensitive with detection limits of 0.010-0.050 mg/L. This significant amount of new analytical data showing no detections justifies removing the nonylphenol limits from Outfall 001.

## 8. REMOVE LIMIT FOR NONYLPHENOL FROM OUTFALL 003

LYB requests removal of the daily maximum concentration limit for nonylphenol from Outfall 003. This limit was added to the TPDES permit in 2021 because several of the outfall analyses in the TPDES renewal application had detected results for nonylphenol. Since quarterly monitoring required by the permit for nonylphenol began in April 2021, there have been approximately 16 analyses through February 2025 and there have been no detections of nonylphenol. The permit requires a minimum analytical level (MAL) or analytical sensitivity of at least 0.333 mg/L; actual laboratory detection limits were significantly more sensitive with detection limits of 0.010-0.100 mg/L. This significant amount of new analytical data showing no detections justifies removing the nonylphenol limit from Outfall 003.

## **9. REMOVE DAILY AVERAGE LIMITS FOR ALUMINUM AND ZINC FROM OUTFALL 003**

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LYB requests removal of the daily average concentration limits for aluminum and zinc from Outfall 003 because monitoring is only required once per quarter. Quarterly monitoring results in having only one data point and calculating the average with one value is not appropriate. Other parameters that are monitored for Outfall 003 such as nonylphenol (quarterly) and the OCPSF parameters (acenaphthene through vinyl chloride) (annually) do not have daily average limits. Similarly, quarterly monitoring for aluminum and zinc should not have daily average limits.

## **10. REMOVE LIMITS FOR CYANIDE FROM OUTFALL 005**

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LYB requests removal of the daily average and daily maximum concentration limits for cyanide from Outfall 005. These limits were added to the TPDES permit in 2021 because the outfall sample in the TPDES renewal application had a detected result for cyanide above the WQBEL screening level.

Weekly monitoring is required in the current TPDES permit and cyanide is usually non-detect. The TCEQ will typically put limits in the permit when the outfall average exceeds 85% of the daily average WQBEL, which is 0.00502 mg/L. During January 2022 – February 2025, out of a total of 166 weekly samples, 132 (80%) were non-detects at the minimum analytical level (MAL) of 0.005 mg/L required by the TPDES permit (pg. 14). When the TCEQ calculates the outfall average for comparison to the WQBEL, it uses 1/2 the detection limit or MAL for analyses reported as non-detects. For the January 2022 – February 2025 data, using 0.0025 mg/L for the non-detects ( $\text{MAL} \div 2$ ), the average is 0.0036 mg/L, 72% of the daily average WQBEL.

The TCEQ will typically not require monitoring of a parameter in the permit if the effluent average is less than 70% of the daily average WQBEL. The effluent average here is just slightly over this screening level (72%). LYB has recently begun using a laboratory that has a lower detection level for cyanide analysis, which could be expected to lower the effluent average where 1/2 the detection level is used for non-detects. When sufficient data are collected, these results will be provided to the TCEQ in a later submittal.

## **11. REMOVE TEMPERATURE LIMITS FOR OUTFALL 007**

---

LYB requests removal of the daily average and daily maximum temperature limits for Outfall 007. These limits (95°F daily average, 100°F daily maximum) have been in the TPDES permit since at least 1998<sup>1</sup> and outfall temperatures have been consistently below these limits. Below is a summary of recent temperature data as well as older monitoring data reported in TPDES fact sheets.

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<sup>1</sup> In 1998, Outfall 007 was formerly listed in TPDES Permit No. WQ0000534000 as Outfall 001 before permits WQ0000534000 and WQ0004013000 were consolidated under WQ0004013000 in 2014.

Outfall 007 Temperature		
	Daily Average (°F)	Daily Maximum (°F)
Permit limits	95	100
Monitoring Period		
October 2021 – January 2025	86.1	92
August 2011 – October 2013 (2014 TPDES fact sheet)	80.2	94
October 1998 – September 2000 (2001 TPDES fact sheet)	79.1	96

## 12. DECREASE OR REMOVE DISSOLVED OXYGEN LIMIT FOR OUTFALL 007

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LYB requests that the TCEQ re-evaluate the dissolved oxygen (DO) modeling for Outfall 007 to determine if the current minimum DO limit of 4.0 mg/L in the TPDES permit can be decreased, or removed if considered no longer necessary.

## 13. REMOVE AMMONIA LIMITS FOR OUTFALL 007

---

LYB requests removal of the daily average and daily maximum flow limits for ammonia from Outfall 007. These limits were added to the TPDES permit in 2014 when limits for biochemical oxygen demand (BOD) were changed at the request of LYB to carbonaceous BOD (CBOD).

LYB understands that the TCEQ typically allows this modification when a CBOD limit is paired with an ammonia limit for the outfall. The BOD parameter itself reflects both CBOD and the oxygen demand of ammonia nitrification, and in that sense, monitoring BOD is an unnecessary duplication of the separate monitoring of ammonia. When CBOD is analyzed, nitrification is suppressed so that only the carbon-based BOD is measured. Furthermore, when the TCEQ models the impacts of oxygen-demanding substances on the dissolved oxygen in the receiving water, they are modeled as CBOD and ammonia.

In the case of Outfall 007, however, the ammonia levels are so low in the effluent discharge that they are well below the permit limits, as shown in the summary of monitoring data below from October 2021 – January 2025. The average effluent mass (0.71 lb/d) is only 3% of the daily average limit (25 lb/d) and the highest daily average mass (6.98 lb/d) is only 28% of the daily average limit (25 lb/d). The highest daily maximum effluent mass (16.32 lb/d) is only 31% of the daily maximum limit (53 lb/d).

If the TCEQ decides that an ammonia limit must be included if CBOD is specified, then LYB requests that either the monitoring frequency for ammonia be reduced to monthly, or that the ammonia limit be removed if the CBOD limit is changed back to a BOD limit.

Outfall 007 Ammonia		
	Daily Average (lb/d)	Daily Maximum (lb/d)
Permit limits (lb/d)	25	53
Monitoring Period October 2021 – January 2025		
Number of values	40	40
Average	0.71	1.61
Minimum	0.18	0.22
Maximum	6.98	16.32
Average lb/d / Limit lb/d	3%	3%
Maximum lb/d / Limit lb/d	28%	31%

#### 14. REMOVE ALUMINUM AND CYANIDE LIMITS AND ZINC MONITORING FROM OUTFALL 008

---

LYB requests removal of the daily maximum concentrations limits for aluminum and cyanide and monitoring for zinc from Outfall 008. These limits and monitoring were added to the TPDES permit in 2021 and monthly monitoring is required. The summary of monitoring data from January 2022 – February 2025 summarized below shows that levels are below the aluminum and cyanide limits and the zinc screening level that the TCEQ uses to determine if limits are needed in a permit.

Because flow from Outfall 008 is intermittent, there is no flow for most months. During the January 2022 – February 2025 period, there were only 5 sample events. The monitoring data show that Outfall 008 is compliant with the aluminum and cyanide limits. For aluminum, the average effluent concentration (0.192 mg/L) is 11% of the daily maximum limit (1.766 mg/L). For cyanide, all of the samples were non-detect (<0.005 mg/L), below the daily maximum limit of 0.0055 mg/L.

When evaluating whether a limit is needed in a permit, the TCEQ screens the average effluent concentration against the daily average water quality-based effluent limit (WQBEL). If the effluent is less than 70% of the WQBEL, then monitoring and permit limits are not required. The average aluminum concentration (0.192 mg/L) is only 23% of the daily average WQBEL (0.835 mg/L). The average zinc concentration is only 30% of the daily average WQBEL (0.0765 mg/L). All of the cyanide samples were non-detect and met the minimum analytical level of 0.005 mg/L in the permit (pg. 14).



Outfall 008 Aluminum, Cyanide, and Zinc			
	Aluminum	Cyanide	Zinc
Permit limits (mg/L)	1.766	0.0055	Report
Water quality-based effluent concentration, daily average (mg/L)	0.835	0.0263	0.0765
Monitoring Period January 2022 – February 2025			
Number of values	5	4	5
Average	0.192	<0.005	0.0227
Minimum	0.0264	<0.005	0.0015
Maximum	0.418	<0.005	0.0646
Average / Limit	11%	All non-detects	N/A
Average / WQBEL-ave (%)	23%	All non-detects	30%

## 15. CHANGE TO ANNUAL MONITORING OF HEXACHLOROBENZENE FOR OUTFALLS 001, 004, AND 007

LYB requests monitoring for hexachlorobenzene for Outfalls 001, 004, and 007 be changed from quarterly to annual. Hexachlorobenzene is required to be included as a permit parameter because these outfalls include process wastewaters that are regulated by effluent guidelines at 40 CFR 414 (Organic Chemicals, Plastics, and Synthetic Fibers). The guidelines require the parameter to be listed even if the particular manufacturing processes at an OCPSF facility does not use or generate hexachlorobenzene. For example for Outfall 007, which contains wastewaters from acetyls production, none of the acetyls production streams contain sufficient concentrations of benzene (or high enough levels of benzene and chlorides) to kinetically support the formation of hexachlorobenzene. Additionally, the temperatures of many of the streams are not high enough to thermodynamically support a spontaneous reaction to form hexachlorobenzene.

The TPDES permit requires a minimum analytical level (MAL) for hexachlorobenzene measurement of 0.005 micrograms per liter (mg/L), meaning that the analytical method must be sensitive enough to detect at the MAL level. Monitoring data for hexachlorobenzene from January 2022 – January 2025 for Outfalls 001, 004, and 007 were all non-detects, with the laboratory achieving even greater analytical sensitivity (detection levels 0.000307-0.000613 mg/L).

In other TPDES permits for OCPSF facilities, the TCEQ typically requires only annual monitoring of the parameters required at §414, Subparts I and J. Given that hexachlorobenzene is neither expected or detected in the facility's wastewaters, a reduction to annual monitoring would be appropriate.

## **16. AUTHORIZE UV DISINFECTION OF DOMESTIC WASTEWATER**

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LYB requests that ultraviolet (UV) be added as an alternate disinfection treatment for domestic wastewater discharged via internal Outfalls 101, 104, 207, 307, and 407. These outfalls are currently authorized in the TPDES permit for disinfection by chlorination as stated in Footnote 2 on pages 2c, 2j, and 2s. Footnote 2 also allows alternate disinfection treatment with TCEQ approval. Monitoring for the bacteria, *Escherichia coli* (*E. coli*) is required by the permit to demonstrate effective disinfection.

UV disinfection deactivates *E. coli* and other microbes with high-power UV radiation. This method is commonly used for disinfection of drinking water and domestic wastewaters. The UV system will be designed to meet the required bacterial limits. One benefit of using UV is to eliminate the generation of chlorinated byproducts when chlorination is used. During a transition from chlorination to UV, both chlorine and UV treatment may be used simultaneously to ensure no gap in treatment.

When UV is used as the sole disinfection treatment (no chlorine is used), monitoring for chlorine residual is not appropriate for outfall monitoring. LYB requests that Footnote 2 include the following statement.

“Monitoring for chlorine residual is not required when chlorination is not used for disinfection.”

**ATTACHMENT T-5  
Treatment Chemicals  
La Porte Complex**

Product Name	Outfall	Dosage	Usage	Chemicals Listed in SDS [CAS]	Aquatic Toxicity Data in SDS	Bioaccumulation / Persistence Data in SDS
3DT098	001/003	0.5 GPD	Polymers Cooling Tower	Chlorotolyltriazole sodium salt [202420-04-0]	Yes	Yes
	007		Acetyls Cooling Tower	Sodium hydroxide [1310-73-2]		
				Sodium tolytriazole [64665-57-2]		
3DT176	007		Acetyls Cooling Tower	Tetrapotassium pyrophosphate [7320-34-5]	Yes	Yes
3DT179	001/003	2 GPD	Polymers Cooling Tower	Sodium bromide [7647-15-6]	Yes	Yes
	007	14 GPD	Acetyls Cooling Tower	Sodium bromide [7647-15-6]	Yes	Yes
3DT180	001/003	Intermittent	Polymers Cooling Tower	No hazardous ingredients listed.	Yes	Yes
3DT184	001/003	0.1 GPD	Polymers Cooling Tower	Phosphoric acid [7664-38-2]	Yes	Yes
3DT185	007	0.1 GPH	Acetyls Wastewater Treatment	Phosphoric acid [7664-38-2]	Yes	Yes
3DT186	001/003	0.2 GPD	Polymers Cooling Tower	Phosphoric acid [7664-38-2]	Yes	No
	007	3.5 GPD	Acetyls Cooling Tower	Phosphoric acid [7664-38-2]		
3DT198	001/003	0.1 GPD	Polymers Cooling Tower	Sodium tolytriazole [64665-57-2]	Yes	Yes
	007	Intermittent	Acetyls Cooling Tower			
3DT394	001/003	3 GPD	Polymers Cooling Tower	No hazardous ingredients listed.	Yes	Yes
	007	24 GPD	Acetyls Cooling Tower			
3DT396	001/003	0.2 GPD	Polymers Cooling Tower	No hazardous ingredients listed.	Yes	Yes
H-550	001/003	Intermittent	Polymers Wastewater Treatment	Glutaraldehyde [111-30-8]	Yes	Yes
	007		Acetyls Biocidal Treatment	Methanol [67-56-1]		
Bioplus BA3900	004	50 lbs/Month	Olefins WWT Aeration Basin Bio-Cultures	Humic folic acid [N/A]	No	No
Control OS7785	004	60 lbs/Day	Olefins Boiler Feed Water	Hydroquinone [123-31-9]	Yes	Yes
Gengard GN8020	004	300 lbs/Day	Olefins Cooling Tower	Maleic acid [110-16-7]	Yes	Yes
				Carboxylic acid polymer [N/A]		
Gengard GN8300	004	27 lbs/Day	Olefins Cooling Tower	Phosphoric acid [7664-38-2]	Yes	No
Inhibitor AZ8104	004	136 lbs/Day	Olefins Cooling Tower	Chlorotolyltriazole sodium salt [202420-04-0]	Yes	Yes
				Dichlorotolyltriazole [N/A]		
				Sodium 4(or 5)-methyl-1H-benzotriazole [64665-57-2]		
				Sodium hydroxide [1310-73-2]		
Klaraid PC1192	004	200 lbs/Day	Olefins Inlet Clarifier Coagulant	N,N-Dimethyl-N-2-propenyl-2-propen-1-ammonium chlorid homopolymer [26062-79-3]	Yes	Yes
KlaraidPC1195	004	Intermittent	Olefins WWT Clarifier Coagulant	No hazardous ingredients listed.	Yes	Yes
Nalco 22305	001/003	10 GPD	Polymer Boilers	No hazardous ingredients listed.	Yes	Yes
Nalco 7161	007	Intermittent	Acetyls Wastewater Treatment	No hazardous ingredients listed.	Yes	Yes
Nalco 71D5Plus	001/003	Intermittent	Polymers Cooling Tower	Straight run middle distillate [64741-44-2]	Yes	Yes
	007		Acetyls Cooling Tower	Petroleum distillates, hydrotreated light [64742-47-8]		
				Propylene glycol [25322-69-4]		
				Stearic acid [57-11-4]		
				1-Octanol [111-87-5]		
				Fatty alkyl polyglycol [N/A]		
				Aliphatic alcohol [N/A]		
Nalco 7330	001/003	Intermittent	Polymers Cooling Tower	Magnesium nitrate [10377-60-3]	Yes	Yes
	007		Acetyls Cooling Tower	5-Chloro-2-methyl-4-isothiazolin-3-one [26172-55-4]		
				2-Methyl-4-isothiazolin-3-one [2682-20-4]		
Nalco 7357	001/003	Intermittent	Polymers Cooling Tower	No hazardous ingredients listed.	Yes	Yes
	007	Intermittent	Acetyls Cooling Tower			
Nalco 7408	001/003		Polymers	Sodium bisulfite [7631-90-5]	Yes	Yes
	007		Acetyls			
Nalco 8187	007	4.2 GPH	Acetyls Wastewater Treatment	Aluminum chloride hydroxide [12042-91-0]	Yes	Yes
Nalco 9818	007	1.2 GPH	Acetyls Wastewater Treatment	Hydrotreated light distillate [64742-47-8]	Yes	No
				Oxyalkylated alcohol [N/A]		
Nalsperse 73550	001/003	Intermittent	Polymers Cooling Tower	Noionic surfactant [N/A]	Yes	Yes
	007		Acetyls Cooling Tower	Nonionic alkyl polyglycoside [N/A]		
NexGuard 22352	001/003	1.2 GPD	Polymers Boilers	Potassium hydroxide [1310-58-3]	Yes	Yes
				Diethylethanolamine [100-37-8]		
Novus CE2680	004	30 lbs/Day	Clarifier and Belt Press; Olefins Cationic Emulsion Polymer for WWT	Distillates (petroleum), hydrotreated light [64742-47-8]	Yes	Yes
				Alcohols, C11-C14-iso,C13-rich, ethoxylated [78330-21-9]		
				Acrylamide [79-06-1]		
				Diethylenetriamine pentaacetic acid, pentasodium salt [140-01-2]		
				Propan-2-ol (isopropyl alcohol) [67-63-0]		
				[2-(acryloyloxy)ethyl]trimethylammonium chloride [44992-01-0]		
Optisperse HTP73611	004	136 lbs/Day	Olefins Boiler Feed Water	Sodium hydroxide [1310-73-2]	Yes	Yes
Optisperse HTP78609	004	165 lbs/Day	Olefins Boiler Feed Water	No hazardous ingredients listed.	Yes	Yes
Spectrus BD1501E	004	600 lbs/Quarter	Olefins Cooling Tower	Alcohols, C10, alkoxylated [166736-08-9]	Yes	Yes
Spectrus NX1106	004	1625 lbs/Quarter	Olefins Cooling Tower	Magnesium nitrate [10377-60-3]	Yes	Yes
				Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one [55965-84-9]		
Steamate NA2460	004	60 lbs/Day	Olefins Boiler Feed Water	Alkylene amine [N/A]	Yes	Yes
				3-Methoxypropylamine [5332-73-0]		
Sur-Gard 1700	001/003	3.125 GPD	Polymers Boilers	Diethylethanolamine [100-37-8]	Yes	Yes
Trac101	001/003	0.5 GPD	Polymers Cooling Tower	Sodium nitrite [7632-00-0]	Yes	Yes
				Substituted triazole [N/A]		
Trac104	001/003	Intermittent	Polymers Jacket Water	Sodium metaborate [7775-19-1]	Yes	Yes
				Sodium tolytriazole [64665-57-2]		
Trac107Plus	001/003	0.3 GPD	Polymers Cooling Tower	Sodium hydroxide [1310-73-2]	Yes	Yes
	007	Intermittent	INEOS	Sodium tetraborate [1330-43-4]		
Tri-Act 1820	001/003	0.2 GPD	Polymers Boilers	Cyclohexylamine [108-91-8]	Yes	Yes
				Morpholine [110-91-8]		
				Diethylethanolamine [100-37-8]		

## SAFETY DATA SHEET

**3DT098**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3DT098

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/18/2024

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Corrosive to metals : Category 1

Skin corrosion : Category 1

Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May be corrosive to metals.  
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Keep only in original container. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.  
**Disposal:**

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Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

## Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Chlorotolyltriazole sodium salt	202420-04-0	10 - 30
Sodium Hydroxide	1310-73-2	1 - 5
Sodium Tolyltriazole	64665-57-2	1 - 5

## Section: 4. FIRST AID MEASURES

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

## Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)
Special protective equipment for firefighters	: Use personal protective equipment.

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Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

## Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

## Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

## Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m <sup>3</sup>	ACGIH
		Ceiling	2 mg/m <sup>3</sup>	NIOSH REL
		TWA	2 mg/m <sup>3</sup>	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.

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Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : Clear to very slightly hazy, yellow to amber
- Odour : no data available
- Flash point : > 93.3 °C, Method: closed cup
- pH : 12 - 14
- Odour Threshold : no data available
- Melting point/freezing point : no data available
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : Not applicable.
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available
- Relative vapour density : no data available
- Relative density : 1.05 - 1.20,
- Density : no data available
- Water solubility : no data available
- Solubility in other solvents : no data available
- Partition coefficient: n-octanol/water : no data available
- Auto-ignition temperature : no data available
- Thermal decomposition : no data available
- Viscosity, dynamic : no data available

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Viscosity, kinematic : no data available  
Molecular weight : no data available  
VOC : no data available

### Section: 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.  
Conditions to avoid : None known.  
Incompatible materials : Strong acids  
Hazardous decomposition products : In case of fire, hazardous decomposition products may be produced such as:  
Carbon oxides  
nitrogen oxides (NOx)

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes : Causes serious eye damage.  
Skin : Causes severe skin burns.  
Ingestion : Causes digestive tract burns.  
Inhalation : May cause nose, throat, and lung irritation.  
Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact : Redness, Pain, Corrosion  
Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough

#### Toxicity

#### Product



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Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Components

Acute dermal toxicity	: Chlorotolyltriazole sodium salt LD50: > 2,000 mg/kg
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## Section: 12. ECOLOGICAL INFORMATION

### Toxicity

Environmental Effects	: Harmful to aquatic life.
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### Product

Toxicity to fish	: LC50 Pimephales promelas (fathead minnow): 52.5 mg/l Exposure time: 96 h Test substance: Product  NOEC Pimephales promelas (fathead minnow): 7.8 mg/l Exposure time: 96 h Test substance: Product
Toxicity to daphnia and other aquatic invertebrates	: EC50 Ceriodaphnia dubia: 80.5 mg/l Exposure time: 48 h Test substance: Product  LC50 Ceriodaphnia dubia: 91.5 mg/l Exposure time: 48 h Test substance: Product  NOEC Ceriodaphnia dubia: 31 mg/l Exposure time: 48 h Test substance: Product
Toxicity to algae	: NOEC Macrocyctis pyrifera (brown algae): 25 mg/l

## SAFETY DATA SHEET

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Exposure time: 48 hrs  
Test substance: Product  
Test Type: Growth

NOEC *Macrocystis pyrifera* (brown algae): 25 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: reproduction

EC25 / IC25 *Macrocystis pyrifera* (brown algae): 56.9 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: reproduction

EC50 *Macrocystis pyrifera* (brown algae): 71.3 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: reproduction

EC25 / IC25 *Macrocystis pyrifera* (brown algae): 51.5 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Growth

EC50 *Macrocystis pyrifera* (brown algae): 67.7 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Growth

Toxicity to fish (Chronic toxicity) : NOEC: 13 mg/l  
Exposure time: 7 d  
Species: *Pimephales promelas* (fathead minnow)  
Test substance: Product

EC25 / IC25: 21.6 mg/l  
Exposure time: 7 d  
Species: *Pimephales promelas* (fathead minnow)  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 25 mg/l  
Exposure time: 7 d  
Species: *Ceriodaphnia dubia*  
Test substance: Product

EC25 / IC25: 30.4 mg/l  
Exposure time: 7 d  
Species: *Ceriodaphnia dubia*  
Test substance: Product

### Persistence and degradability

Biodegradability : Result: Poorly biodegradable

### Mobility

# SAFETY DATA SHEET

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no data available

## Bioaccumulative potential

no data available

## Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, N.O.S.  
Technical name(s) : Chlorotolyltriazole sodium salt  
UN/ID No. : UN 1760  
Transport hazard class(es) : 8  
Packing group : II

### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, N.O.S.  
Technical name(s) : Chlorotolyltriazole sodium salt  
UN/ID No. : UN 1760  
Transport hazard class(es) : 8  
Packing group : II

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, N.O.S.  
Technical name(s) : Chlorotolyltriazole sodium salt  
UN/ID No. : UN 1760  
Transport hazard class(es) : 8

## SAFETY DATA SHEET

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Packing group : II

### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hydroxide	1310-73-2	1000	40000

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

not determined

##### Japan. ENCS - Existing and New Chemical Substances Inventory

not determined

##### Korea. Korean Existing Chemicals Inventory (KECI)

not determined

# SAFETY DATA SHEET

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## Philippines Inventory of Chemicals and Chemical Substances (PICCS)

not determined

## China Inventory of Existing Chemical Substances

On the inventory, or in compliance with the inventory.

## Taiwan Chemical Substance Inventory

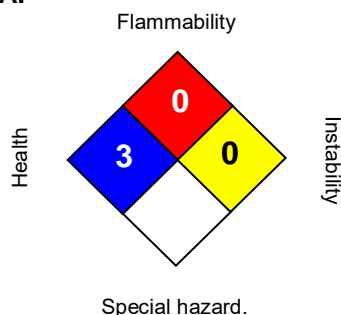
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

## Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/18/2024  
Version Number : 1.5  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**3D Trasar™ 3DT176**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D Trasar™ 3DT176

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/24/2022

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Eye irritation : Category 2A

#### GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear eye protection/face protection.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Storage:**  
Protect product from freezing.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Tetrapotassium Pyrophosphate	7320-34-5	10 - 30

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

#### Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
- In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Buna-N, HDPE (high density polyethylene), Polyurethane, Polypropylene, Polyethylene, Epoxy phenolic resin, 100% phenolic resin liner, Stainless Steel 304, Stainless Steel 316L

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Neoprene, EPDM, Chlorosulfonated polyethylene rubber, Fluoroelastomer

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES



## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

Appearance	: Liquid
Colour	: dark yellow to clear
Odour	: Ammoniacal
Flash point	: does not flash
pH	: 10.5
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -7.2 °C
Initial boiling point and boiling range	: 91.1 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 5.6 hPa, (0 °C), 20 hPa, (20 °C), 56 hPa, (37.8 °C), 230 hPa, (65.6 °C), 730 hPa, (93.3 °C), 1,010 hPa, (101 °C),
Relative vapour density	: no data available
Relative density	: 1.2802,
Density	: 1.275 - 1.279 g/cm3
Water solubility	: Complete
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 1.6 %

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors.  Strong oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Causes serious eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Pain, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity	: no data available
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

#### Components

Acute oral toxicity : Tetrapotassium Pyrophosphate  
LD50 rat: > 2,000 mg/kg

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 Inland Silverside: 5,901 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): 2,324 mg/l  
Exposure time: 96 h  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 1,800 mg/l  
Exposure time: 96 h  
Test substance: Product

NOEC Inland Silverside: 3,600 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Pimephales promelas (fathead minnow): 740.3 mg/l  
Exposure time: 96 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Ceriodaphnia dubia: 1,394 mg/l  
Exposure time: 48 h  
Test substance: Product

LC50 Americamysis: 2,583 mg/l  
Exposure time: 96 h  
Test substance: Product

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

NOEC Americamysis: 2,600 mg/l  
Exposure time: 96 h  
Test substance: Product

NOEC Ceriodaphnia dubia: 1,080 mg/l  
Exposure time: 48 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC25 / IC25: 137 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

NOEC: 51 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

LOEC: 128 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

#### Persistence and degradability

Total Organic Carbon (TOC) : 25,000 mg/l

Chemical Oxygen Demand (COD): 110,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	254 mg/l	Product

#### Mobility

no data available

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

##### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

not determined

##### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

not determined

##### Japan. ENCS - Existing and New Chemical Substances Inventory

not determined

##### Korea. Korean Existing Chemicals Inventory (KECI)

not determined

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

not determined

##### China Inventory of Existing Chemical Substances

not determined

##### Taiwan Chemical Substance Inventory

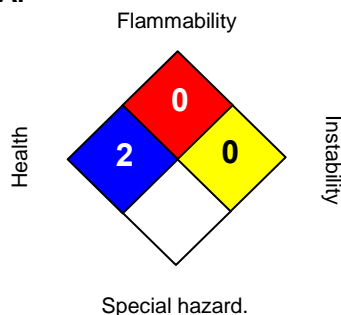
not determined

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Section: 16. OTHER INFORMATION

##### NFPA:



##### HMIS III:

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 02/24/2022  
Version Number : 1.9  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

## SAFETY DATA SHEET

### 3D Trasar™ 3DT176

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT179

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/14/2024

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Not a hazardous substance or mixture.

##### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bromide	7647-15-6	0.1 - 1

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : light yellow

Odour : odourless

Flash point : > 93.3 °C, Method: ASTM D 93, Pensky-Martens closed cup

pH : 2.5 - 4.5, (25 °C)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -8.3 °C

Initial boiling point and boiling range : no data available

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.25, (25 °C),
Density	: 10.4 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors.
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : LD50 rat: > 2,000 mg/kg  
Test substance: Similar Product

Acute inhalation toxicity : no data available

Acute dermal toxicity : LD50 rat: > 2,000 mg/kg  
Test substance: Similar Product

Skin corrosion/irritation : Species: Rabbit  
Exposure time: 72 hrs  
Result: No skin irritation  
Test substance: Similar Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Draize Test  
Test substance: Similar Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Oedema  
Test substance: Similar Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Erythema  
Test substance: Similar Product

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

Reproductive effects : no data available  
Germ cell mutagenicity : Not mutagenic in Ames Test.  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Pimephales promelas (fathead minnow): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Inland Silverside: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Oncorhynchus mykiss (rainbow trout): 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Pimephales promelas (fathead minnow): 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Fathead Minnow: > 10,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Fathead Minnow: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): > 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

LC50 Mysid Shrimp (Mysidopsis bahia): 4,559 mg/l

## SAFETY DATA SHEET

**3D TRASAR™ 3DT179**

Exposure time: 96 hrs  
Test substance: Similar Product

EC50 Daphnia magna (Water flea): > 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

NOEC Daphnia magna (Water flea): < 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

NOEC Mysid Shrimp (Mysidopsis bahia): 2,500 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Ceriodaphnia dubia: 1,768 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Ceriodaphnia dubia: 1,250 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : LC50 Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 330 mg/l  
End point: Growth  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 150 mg/l  
End point: Growth  
Exposure time: 96 hrs  
Test substance: Similar Product

### Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Sodium Bromide  
NOEC: 7.5 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be poorly biodegradable.

Total Organic Carbon (TOC) : 97,000 mg/l

Chemical Oxygen Demand (COD): 230,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period  
5 d

Value  
750 mg/l

Test Descriptor  
Similar Product

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 10 - 30%
Soil	: 70 - 90%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT179

**TSCA list** : No substances are subject to a Significant New Use Rule.  
No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### Taiwan Chemical Substance Inventory



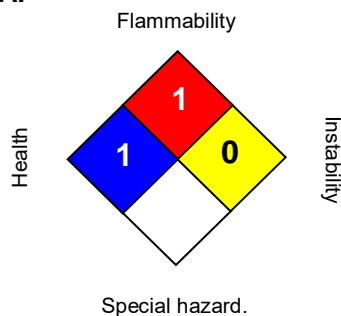
## SAFETY DATA SHEET

**3D TRASAR™ 3DT179**

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/14/2024  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT180

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 10/27/2017

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Not a hazardous substance or mixture.

##### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult SDS Section 4.  
**Storage:**  
Store in accordance with local regulations. Protect product from freezing.  
Protect product from freezing.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

No hazardous ingredients

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Protect product from freezing.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Buna-N, HDPE (high density polyethylene), Polyurethane, Polypropylene, Polyethylene, Epoxy phenolic resin, 100% phenolic resin liner
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Neoprene, Stainless Steel 304, EPDM, Stainless Steel 316L, Chlorosulfonated polyethylene rubber, Fluoroelastomer

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : colourless
- Odour : Slight, Acidic
- Flash point : > 93.3 °C, Method: ASTM D 93, Pensky-Martens closed cup
- pH : 2.5 - 4.5
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -7.7 °C
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : no data available
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

Relative vapour density	: no data available
Relative density	: 1.25, (25 °C),
Density	: 1.28 g/cm <sup>3</sup> , 10.4 lb/gal
Water solubility	: no data available
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: log Pow: < -2.08
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 3.04 %, EPA Method 24

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

##### Experience with human exposure

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : LD50 rat: > 2,000 mg/kg  
Test substance: Product

Acute inhalation toxicity : no data available

Acute dermal toxicity : LD50 rat: > 2,000 mg/kg  
Test substance: Product

Skin corrosion/irritation : Species: Rabbit  
Exposure time: 72 hrs  
Result: No skin irritation  
Test substance: Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Draize Test  
Test substance: Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Oedema  
Test substance: Product

Species: Rabbit  
Exposure time: 72 hrs  
Result: 0.0  
Method: Erythema  
Test substance: Product

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : Not mutagenic in Ames Test.

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

## SAFETY DATA SHEET

3D TRASAR™ 3DT180

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Pimephales promelas (fathead minnow): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Inland Silverside: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Mysid Shrimp (Mysidopsis bahia): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Ceriodaphnia dubia: 813 mg/l  
Exposure time: 48 hrs  
Test substance: Product

EC50 Daphnia magna (Water flea): 1,617 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Daphnia magna (Water flea): 1,250 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 5,000 mg/l  
Exposure time: 96 hrs

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

Test substance: Product

NOEC Ceriodaphnia dubia: 500 mg/l

Exposure time: 48 hrs

Test substance: Product

Toxicity to algae : LC50 Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 330 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 150 mg/l  
Exposure time: 96 hrs  
Test substance: Product

#### Persistence and degradability

Total Organic Carbon (TOC) : 97,000 mg/l

Chemical Oxygen Demand (COD): 230,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period  
5 d

Value  
750 mg/l

Test Descriptor  
Product

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 10 - 30%  
Soil : 70 - 90%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Section: 15. REGULATORY INFORMATION

##### EPCRA - Emergency Planning and Community Right-to-Know Act

###### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

###### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

##### INTERNATIONAL CHEMICAL CONTROL LAWS :

###### United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

###### Australia. Industrial Chemical (Notification and Assessment) Act

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

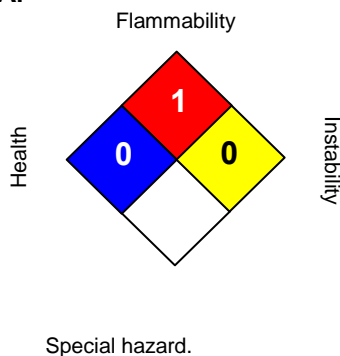
All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 10/27/2017  
Version Number : 1.1  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT180

specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT184**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT184

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 09/03/2020

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification


Corrosive to metals : Category 1

Acute toxicity (Inhalation) : Category 3

Skin corrosion : Category 1B

Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Toxic if inhaled.

Precautionary Statements : **Prevention:**  
Keep only in original container. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

**Storage:**

Store in a well-ventilated place. Keep container tightly closed. Store in corrosive resistant container with a resistant inner liner.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Phosphoric Acid	7664-38-2	30 - 60

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention immediately.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials: Oxides of phosphorus

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m <sup>3</sup>	ACGIH
		STEL	3 mg/m <sup>3</sup>	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		STEL	3 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 mg/m <sup>3</sup>	OSHA Z1

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : brown

Odour : odourless

Flash point : > 93.3 °C

pH : 1.0,(100 %)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -22.5 °C

Initial boiling point and boiling range : 100 °C

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 56 mm Hg, (38 °C),

Relative vapour density : no data available

Relative density : 1.24, (15.6 °C),

Density : 1.24 g/cm<sup>3</sup> , 10.4 lb/gal

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 3 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, Calculation method

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Bases Strong bases
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: Toxic if inhaled. Harmful if inhaled. May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

##### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
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## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Acute inhalation toxicity : Acute toxicity estimate: 8.13 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

##### **Components**

Acute dermal toxicity : Phosphoric Acid  
LD50 rabbit: > 2,000 mg/kg

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### **Product**

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,660 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product  
LC50 Inland Silverside: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
LC50 Oncorhynchus mykiss (rainbow trout): > 5,000 mg/l

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Mysid Shrimp (Mysidopsis bahia): 2,237 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Daphnia magna (Water flea): 3,536 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 1,250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Daphnia magna (Water flea): 2,500 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 1,972 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Similar Product

NOEC: 1,250 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Similar Product

#### Components

Toxicity to algae : Phosphoric Acid  
EC50 Desmodesmus subspicatus (green algae): > 100 mg/l  
Exposure time: 72 h

#### Persistence and degradability

The organic portion of this preparation is expected to be readily biodegradable.

Total Organic Carbon (TOC) : 1,000 mg/l

Chemical Oxygen Demand (COD): 3,500 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	130 mg/l	Product

#### Mobility

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### 3D TRASAR™ 3DT184

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

#### Land transport (DOT)

Proper shipping name	: PHOSPHORIC ACID SOLUTION
Technical name(s)	:
UN/ID No.	: UN 1805
Transport hazard class(es)	: 8
Packing group	: III
Reportable Quantity (per package)	: 13,543 lbs

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

RQ Component : Phosphoric Acid

#### Air transport (IATA)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 13,543 lbs  
RQ Component : Phosphoric Acid

#### Sea transport (IMDG/IMO)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phosphoric Acid	7664-38-2	5000	13542

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT184**

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

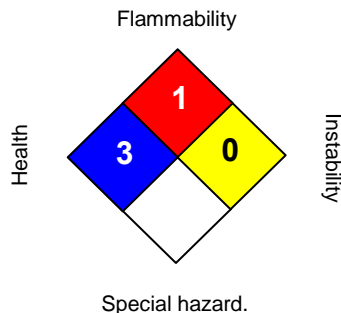
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 09/03/2020

Version Number : 1.5

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 3D TRASAR® 3DT185

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/17/2015

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Skin corrosion : Category 1A  
Serious eye damage : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. Do not mix with bleach or other chlorinated products – will cause chlorine gas.  
**Response:**  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.  
**Storage:**  
Store locked up.  
**Disposal:**

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Phosphoric Acid	7664-38-2	60 - 100

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible. Contact with reactive metals (e.g. aluminum) may result in the generation of flammable hydrogen gas.

Hazardous combustion products : None known

Special protective equipment for firefighters : Use personal protective equipment.



## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not mix with bleach or other chlorinated products – will cause chlorine gas. Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Suitable material : Shipping and long term storage compatibility with construction materials can vary; we therefore recommend that compatibility is tested prior to use. Keep in properly labelled containers.

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Product is corrosive to aluminum. Aluminum should not be used for feed, storage, or transportation systems., This product is corrosive to mild steel. The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

		STEL	3 mg/m <sup>3</sup>	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		STEL	3 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 mg/m <sup>3</sup>	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : Clear Colorless

Odour : Acidic

Flash point : Method: ASTM D 93, Pensky-Martens closed cup  
does not flash

pH : 0 - 1, 100 %

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -17 °C

Initial boiling point and boiling range : 103 °C (760 mm Hg)  
Method: ASTM D 86

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : no data available

Relative vapour density : no data available

Relative density : 1.58 (23.3 °C)

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Density	: no data available
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 21 mPa.s (20 °C) 9.3 mPa.s (50 °C)
Viscosity, kinematic	: no data available
VOC	: 0 % Calculation method

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors. Contact with reactive metals (e.g. aluminum) may result in the generation of flammable hydrogen gas.
Hazardous decomposition products	: Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

##### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
-------------	----------------------------

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity : no data available  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : Species: Rabbit  
Result: 8.0  
Method: Draize Test  
Test substance:Product  
Serious eye damage/eye irritation : Species: rabbit  
Result: 110.0  
Method: Draize Test  
Test substance: Product  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

#### Components

Acute oral toxicity : Phosphoric Acid  
LD50 rat: > 2,000 mg/kg

#### Components

Acute inhalation toxicity : Phosphoric Acid  
LC50 rat: 0.962 mg/l  
Exposure time: 4 h

#### Components

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Acute dermal toxicity : Phosphoric Acid  
LD50 rabbit: > 2,000 mg/kg

#### Section: 12. ECOLOGICAL INFORMATION

##### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### Product

Toxicity to fish : LC50 Fathead Minnow: 3,660 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Rainbow Trout: 4,844 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Fathead Minnow: 2,500 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Rainbow Trout: 2,500 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna: 2,083 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Ceriodaphnia dubia: 1,625 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Daphnia magna: 1,250 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Ceriodaphnia dubia: 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to bacteria : LC50 Pseudomonas putida: > 1,000 mg/l  
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 1,972 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: 2,500 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 1,250 mg/l  
Exposure time: 7 Days

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Species: Fathead Minnow  
Test substance: Product

#### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	:	<5%
Water	:	30 - 50%
Soil	:	50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) : Phosphoric Acid  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 6,660 lbs  
RQ Component : PHOSPHORIC ACID

#### Air transport (IATA)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) : Phosphoric Acid  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 6,660 lbs  
RQ Component : PHOSPHORIC ACID

#### Sea transport (IMDG/IMO)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) : Phosphoric Acid  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phosphoric Acid	7664-38-2	5000	6667

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT185

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

##### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### KOREA

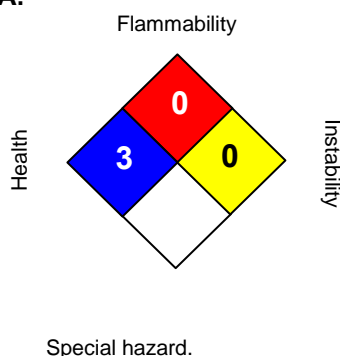
All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

##### PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### Section: 16. OTHER INFORMATION

##### NFPA:



##### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/17/2015  
Version Number : 1.1  
Prepared By : Regulatory Affairs



## **SAFETY DATA SHEET**

### **3D TRASAR® 3DT185**

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT186**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT186

Other means of identification : Not applicable.

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/03/2020

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Corrosive to metals : Category 1  
Skin corrosion : Category 1B  
Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May be corrosive to metals.  
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Keep only in original container. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
**Storage:**  
Store in corrosive resistant container with a resistant inner liner.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

**Other hazards** : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Phosphoric Acid	7664-38-2	30 - 60

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials: Oxides of phosphorus

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
- Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : Keep in properly labelled containers.Keep in properly labelled containers.
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Product is corrosive to aluminum. Aluminum should not be used for feed, storage, or transportation systems.

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		STEL	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

- Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.  
Nitrile-rubber, Butyl-Rubber and Neoprene gloves.  
Viton® gloves  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.  
Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Acid gas cartridge.  
In event of emergency or planned entry into unknown concentrations, a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : colourless
- Odour : odourless
- Flash point : Not applicable.
- pH : < 2.0,(100 %)
- Odour Threshold : no data available
- Melting point/freezing point : Freezing Point: -23.3 °C
- Initial boiling point and boiling range : 101 °C
- Evaporation rate : similar to water
- Flammability (solid, gas) : Not applicable.
- Upper explosion limit : no data available
- Lower explosion limit : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

Vapour pressure	: similar to water
Relative vapour density	: no data available
Relative density	: 1.23, (25 °C),
Density	: 10.2 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Strong bases
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

##### **Components**

Acute dermal toxicity	: Phosphoric Acid LD50 rabbit: > 2,000 mg/kg
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### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects	: This product has no known ecotoxicological effects.
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##### **Product**

Toxicity to fish	: LC50 Pimephales promelas (fathead minnow): 7,434 mg/l Exposure time: 96 hrs Test substance: Product  LC50 Oncorhynchus mykiss (rainbow trout): 9,840 mg/l Exposure time: 96 hrs Test substance: Product
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## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

LC50 Inland Silverside: > 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Inland Silverside: 2,500 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 4,321.45 mg/l  
Exposure time: 48 hrs

Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 1,909 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 1,250 mg/l

Exposure time: 96 hrs

Test substance: Product

#### Components

Toxicity to algae : Phosphoric Acid  
EC50 Desmodesmus subspicatus (green algae): > 100 mg/l  
Exposure time: 72 h

#### Persistence and degradability

no data available

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

no data available

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

##### Land transport (DOT)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 13,543 lbs  
RQ Component : PHOSPHORIC ACID

##### Air transport (IATA)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 13,543 lbs  
RQ Component : PHOSPHORIC ACID

##### Sea transport (IMDG/IMO)

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT186

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phosphoric Acid	7664-38-2	5000	13542

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Industrial Chemical (Notification and Assessment) Act

On the inventory, or in compliance with the inventory

##### Japan. ENCS - Existing and New Chemical Substances Inventory

On the inventory, or in compliance with the inventory

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

On the inventory, or in compliance with the inventory

##### China Inventory of Existing Chemical Substances

On the inventory, or in compliance with the inventory

##### Taiwan Chemical Substance Inventory

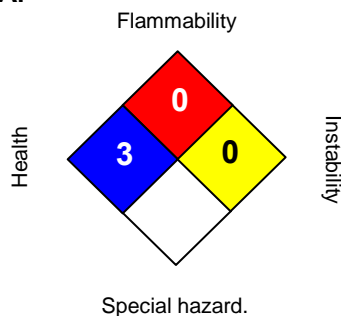
## SAFETY DATA SHEET

**3D TRASAR™ 3DT186**

On the inventory, or in compliance with the inventory

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 02/03/2020  
Version Number : 1.3  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT198

Other means of identification : Not applicable.

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 10/17/2024

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Acute toxicity (Oral) : Category 4  
Skin corrosion : Category 1  
Serious eye damage : Category 1  
Reproductive toxicity : Category 2

##### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Harmful if swallowed.  
Causes severe skin burns and eye damage.  
Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**  
Obtain special instructions before use. Wash skin thoroughly after handling.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.  
**Disposal:**

# SAFETY DATA SHEET

## 3D TRASAR™ 3DT198

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Tolyltriazole	64665-57-2	30 - 60

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)

Special protective equipment for firefighters : Use personal protective equipment.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

degradation or chemical breakthrough.

Skin protection	: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Light
Odour	: Characteristic
Flash point	: does not flash
pH	: 11.5 - 12,(10 %)
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -7.8 - -5 °C
Initial boiling point and boiling range	: 106 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 18.8 mm Hg, (20 °C),
Relative vapour density	: no data available
Relative density	: 1.19 - 1.21,
Density	: 1.17 g/cm <sup>3</sup> , 9.8 lb/gal
Water solubility	: no data available
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: log Pow: -1.20
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 55 mPa.s (16 °C)

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

Viscosity, kinematic : no data available  
Molecular weight : no data available  
VOC : no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.  
Conditions to avoid : None known.  
Incompatible materials : Strong acids  
Oxidizing agents  
Hazardous decomposition products : In the event of fire, see Section 5

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

##### Potential Health Effects

Eyes : Causes serious eye damage.  
Skin : Causes severe skin burns.  
Ingestion : Harmful if swallowed. Causes digestive tract burns.  
Inhalation : May cause nose, throat, and lung irritation.  
Chronic Exposure : Suspected of damaging fertility or the unborn child.

##### Experience with human exposure

Eye contact : Redness, Pain, Corrosion  
Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough

##### Toxicity

##### Product



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

Acute oral toxicity	: Acute toxicity estimate: 1,470 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Harmful to aquatic life.

#### Product

Toxicity to fish : LC50 Bluegill Sunfish: 191.2 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Rainbow Trout: 23.7 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Inland Silverside: 93.2 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Zebra Danio: 122 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Bluegill Sunfish: 173 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Bluegill Sunfish: 56 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Rainbow Trout: 10 mg/l

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 62.5 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna: 245.7 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 89.8 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Acartia tonsa: 605 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 62.5 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Acartia tonsa: 250 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : LC50 Marine Algae (Skeletonema costatum): 114 mg/l  
Exposure time: 72 hrs  
Test substance: Product  
Test Type: Growth

NOEC Marine Algae (Skeletonema costatum): 10 mg/l  
Exposure time: 72 hrs  
Test substance: Product  
Test Type: Growth

NOEC Macrocystis pyrifera (brown algae): 50 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: reproduction

NOEC Macrocystis pyrifera (brown algae): 12.5 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Growth

EC25 / IC25 Macrocystis pyrifera (brown algae): 62.9 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: reproduction

EC25 / IC25 Macrocystis pyrifera (brown algae): 46.4 mg/l  
Exposure time: 48 hrs  
Test substance: Product

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

Test Type: Growth

EC50 *Macrocystis pyrifera* (brown algae): 82.7 mg/l

Exposure time: 48 hrs

Test substance: Product

Test Type: reproduction

EC50 *Macrocystis pyrifera* (brown algae): 86.7 mg/l

Exposure time: 48 hrs

Test substance: Product

Test Type: Growth

Toxicity to bacteria : LC50 *Pseudomonas putida*: 500 mg/l  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : IC50: 2.1 mg/l  
End point: Reproduction  
Exposure time: 21 Days  
Species: *Daphnia magna*  
Test substance: Product

#### Persistence and degradability

Biodegradability : Result: Poorly biodegradable

The organic portion of this preparation is expected to be poorly biodegradable.

Total Organic Carbon (TOC) : 280,000 mg/l

Chemical Oxygen Demand (COD): 850,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

5 d

< 300 mg/l

Product

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 10 - 30%  
Soil : 70 - 90%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

#### Other information

no data available

#### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S  
Technical name(s) : Substituted Triazole  
UN/ID No. : UN 3267  
Transport hazard class(es) : 8  
Packing group : II

##### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S  
Technical name(s) : Substituted Triazole  
UN/ID No. : UN 3267  
Transport hazard class(es) : 8  
Packing group : II

##### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S  
Technical name(s) : Substituted Triazole  
UN/ID No. : UN 3267  
Transport hazard class(es) : 8  
Packing group : II

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT198

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Reproductive toxicity  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

## SAFETY DATA SHEET

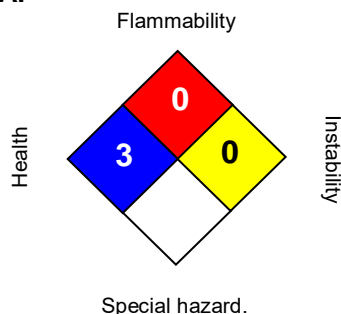
### 3D TRASAR™ 3DT198

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

#### Section: 16. OTHER INFORMATION

##### NFPA:



##### HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 10/17/2024  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT394**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT394

Other means of identification : Not applicable.

Recommended use : COOLING WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/14/2024

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

No hazardous ingredients

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : Keep in properly labelled containers.



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.  
Filter type: P, Particulates type

Hygiene measures : Wash hands before breaks and immediately after handling the product.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Viscous liquid

Colour : clear light yellow to orange

Odour : Mild

Flash point : > 93.3 °C, does not flash

pH : 2.4 - 3.8, (22.2 °C)

Odour Threshold : no data available

Melting point/freezing point : Melting point/freezing point: -7.6 °C

Initial boiling point and boiling range : 92.2 °C

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 5.7 hPa, (0 °C),  
19.9 hPa, (20 °C),  
49.3 hPa, (37.78 °C),  
187 hPa, (65.56 °C),

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

	547 hPa, (93.33 °C),
	1,010 hPa, (111.67 °C),
Relative vapour density	: no data available
Relative density	: 1.22, (25 °C),
Density	: 1.2219 - 1.2221 g/cm <sup>3</sup>
Water solubility	: Complete
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 150 - 400 mPa.s (22.2 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

#### Experience with human exposure

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : no data available  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : NOEC Pimephales promelas (fathead minnow): 3,600 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
LC50 Pimephales promelas (fathead minnow): 5,669 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
NOEC Oncorhynchus mykiss (rainbow trout): 6,000 mg/l  
Exposure time: 96 h  
Test substance: Product

## SAFETY DATA SHEET

**3D TRASAR™ 3DT394**

LC50 Oncorhynchus mykiss (rainbow trout): 8,412 mg/l  
Exposure time: 96 h  
Test substance: Product

NOEC Inland Silverside: 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Inland Silverside: > 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Rainbow Trout: 1,641 mg/l  
Exposure time: 96 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : NOEC Americamysis bahia: 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Americamysis bahia: > 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Ceriodaphnia dubia: 947 mg/l  
Exposure time: 48 h  
Test substance: Product

NOEC Ceriodaphnia dubia: 625 mg/l  
Exposure time: 48 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 500 mg/l  
End point: Survival  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test Type: Survival

LC50: 707 mg/l  
End point: Survival  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test Type: Survival

EC50: 655 mg/l  
End point: Reproduction  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test Type: Reproduction

NOEC: 500 mg/l  
End point: Reproduction  
Exposure time: 7 d  
Species: Ceriodaphnia dubia

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

Test Type: Reproduction

#### Persistence and degradability

Biodegradability : Result: Poorly biodegradable

Total Organic Carbon (TOC) : 230,000 mg/l

Chemical Oxygen Demand (COD): 470,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value
5 d	1,200 mg/l

Test Descriptor  
Product

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 10 - 30%
Soil	: 70 - 90%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

no data available

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (EC SI).

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT394

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

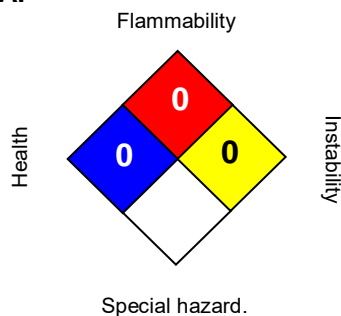
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/14/2024  
Version Number : 1.5  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**NALCO® 3DT396**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 3DT396

Other means of identification : Not applicable.

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/04/2020

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations. Protect product from freezing.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

No hazardous ingredients

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.



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Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### Section: 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8. Wash hands after handling.

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

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### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : clear light yellow

Odour : Ammoniacal

Flash point : > 200 F/ > 93.3 °C

pH : 3 - 4

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -5.6 °C

Initial boiling point and boiling range : 98.9 °C

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 6.7 hPa, (0 °C),  
21.3 hPa, (20 °C),  
51.9 hPa, (37.8 °C),  
187 hPa, (65.6 °C),  
520 hPa, (93.3 °C),

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1,010 hPa, (111.7 °C),

Relative vapour density	: no data available
Relative density	: 1.2085,
Density	: 1.2021 - 1.2023 g/cm <sup>3</sup>
Water solubility	: Miscible
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 9.6 %

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

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### Experience with human exposure

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : no data available  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

## Section: 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### **Product**

Toxicity to fish : NOEC Pimephales promelas (fathead minnow): 6,000 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
LC50 Oncorhynchus mykiss (rainbow trout): > 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
NOEC Oncorhynchus mykiss (rainbow trout): 10,000 mg/l  
Exposure time: 96 h  
Test substance: Product

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LC50 Pimephales promelas (fathead minnow): 7,959 mg/l  
Exposure time: 96 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : NOEC Ceriodaphnia dubia: 1,296 mg/l  
Exposure time: 48 h  
Test substance: Product

LC50 Ceriodaphnia dubia: 1,673 mg/l  
Exposure time: 48 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 250 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

EC25 / IC25: 331 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

### Persistence and degradability

Total Organic Carbon (TOC) : 150,000 mg/l

Chemical Oxygen Demand (COD): 340,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period  
5 d

Value  
437 mg/l

Test Descriptor  
Product

### Mobility

no data available

### Bioaccumulative potential

no data available

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or

## SAFETY DATA SHEET

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disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

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**Australia. Industrial Chemical (Notification and Assessment) Act**

not determined

**Japan. ENCS - Existing and New Chemical Substances Inventory**

not determined

**Korea. Korean Existing Chemicals Inventory (KECI)**

On the inventory, or in compliance with the inventory

**Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

not determined

**China Inventory of Existing Chemical Substances**

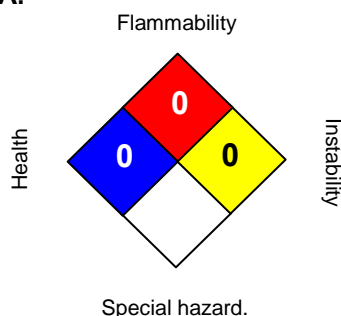
not determined

**Taiwan Chemical Substance Inventory**

not determined

### Section: 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 02/04/2020  
Version Number : 1.6  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**NALCO® 7408**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 7408

Other means of identification : Not applicable.

Recommended use : CHLORINE SCAVENGER

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC


Issuing date : 05/24/2022

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Corrosive to metals : Category 1  
Acute toxicity (Oral) : Category 4

#### GHS Label element

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : May be corrosive to metals.  
Harmful if swallowed.  
Contact with acids liberates toxic gas.

Precautionary Statements : **Prevention:**  
Keep only in original container. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
**Storage:**  
Store in corrosive resistant container with a resistant inner liner. Protect product from freezing.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : The head space of containers containing this product may accumulate Sulphur



## SAFETY DATA SHEET

**NALCO® 7408**

Dioxide (SO<sub>2</sub>). SO<sub>2</sub> is a toxic and irritating gas that can be hazardous if inhaled.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bisulfite	7631-90-5	30 - 60

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Heating or fire can release toxic gas.  
May evolve oxides of sulfur (SO<sub>x</sub>) under fire conditions.

Hazardous combustion products : Decomposition products may include the following materials: Sulphur oxides  
metal oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

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### NALCO® 7408

- Personal precautions, protective equipment and emergency procedures : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Wash hands thoroughly after handling. Use only with adequate ventilation. Containers should be opened cautiously and only in well ventilated areas.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in a well-ventilated place. Store in suitable labelled containers. Do not store at elevated temperature.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: CPVC (rigid), HDPE (high density polyethylene), LLDPE, Polypropylene, Nylon 11, PTFE, PVC, Polyvinylidene difluoride, UHMWPE, Viton, Nitrile, Buna-N  
The following compatibility data is suggested based on similar product data and/or industry experience:
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Stainless Steel 316L, Unwelded Stainless Steel 316, Brass, Mild steel, Neoprene, EPDM  
The following compatibility data is suggested based on similar product data and/or industry experience:

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Exposure limits are listed for sulfur dioxide (SO<sub>2</sub>) since this product evolves SO<sub>2</sub> when open to the atmosphere.

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Bisulfite	7631-90-5	TWA	5 mg/m <sup>3</sup>	ACGIH
		TWA	5 mg/m <sup>3</sup>	NIOSH REL
Sulfur Dioxide	7446-09-5	STEL	0.25 ppm	ACGIH
		TWA	2 ppm 5 mg/m <sup>3</sup>	NIOSH REL
		ST	5 ppm 13 mg/m <sup>3</sup>	NIOSH REL
		TWA	5 ppm 13 mg/m <sup>3</sup>	OSHA Z-1

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below

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occupational exposure standards.

### Personal protective equipment

Eye protection	: Safety glasses
Hand protection	: Wear protective gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	: Wear suitable protective clothing.
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: clear
Odour	: Pungent
Flash point	: does not flash
pH	: 4.1,(1 %), Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: 1.1 °C
Initial boiling point and boiling range	: 104 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 32 mm Hg, (25 °C), ASTM D 323,
Relative vapour density	: 2.2(Air = 1)
Relative density	: 1.37, (25 °C), ASTM D-1298
Density	: 11.4 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-	: no data available

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octanol/water

Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 2.8 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Evolves SO <sub>2</sub> when open to atmosphere. The rate of SO <sub>2</sub> evolution increases with temperature and/or transfer of product.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Keep away from heat and sources of ignition.
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors. SO <sub>2</sub> may react with vapors from neutralizing amines and may produce a visible cloud of amine salt particles. Mild steel Aluminium
Hazardous decomposition products	: Decomposition products may include the following materials: Sulphur oxides metal oxides

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Harmful if swallowed.
Inhalation	: May release toxic, irritating and/or corrosive gases.
Chronic Exposure	: Health injuries are not known or expected under normal use.

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### Experience with human exposure

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No information available.  
Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : Acute toxicity estimate: 1,250 mg/kg  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : Result: Contains an ingredient that can cause asthmatic-like reactions in sulfite-sensitive individuals.  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

## Section: 12. ECOLOGICAL INFORMATION

### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): > 100 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 *Pimephales promelas* (fathead minnow): 382 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product  
  
LC50 *Gambusia affinis* (Mosquito fish): 240 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

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NOEC Pimephales promelas (fathead minnow): 250 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 728 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

LC50 Daphnia magna (Water flea): 275 mg/l  
Exposure time: 48 hrs  
Test substance: Product (estimated)

LC50 Daphnia magna (Water flea): 119 mg/l  
Exposure time: 48 hrs  
Test substance: Active Substance

NOEC Daphnia magna (Water flea): 250 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 382 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: 500 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 250 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC: 500 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

EC25 / IC25: 277 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

NOEC: 250 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

### Persistence and degradability

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Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Chemical Oxygen Demand (COD): 85,000 mg/l

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods	: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

#### Land transport (DOT)

Proper shipping name	: BISULPHITES, AQUEOUS SOLUTION, N.O.S.
Technical name(s)	: SODIUM BISULPHITE
UN/ID No.	: UN 2693
Transport hazard class(es)	: 8
Packing group	: III

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Reportable Quantity (per package) : 12,500 lbs  
RQ Component : SODIUM BISULFITE

### Air transport (IATA)

Proper shipping name : BISULPHITES, AQUEOUS SOLUTION, N.O.S.  
Technical name(s) : SODIUM BISULFITE  
UN/ID No. : UN 2693  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 12,500 lbs  
RQ Component : SODIUM BISULFITE

### Sea transport (IMDG/IMO)

Proper shipping name : BISULPHITES, AQUEOUS SOLUTION, N.O.S.  
Technical name(s) : SODIUM BISULPHITE  
UN/ID No. : UN 2693  
Transport hazard class(es) : 8  
Packing group : III

## Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.  
No substances are subject to TSCA 12(b) export notification requirements.

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Bisulfite	7631-90-5	5000	12500

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Acute toxicity (any route of exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.



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### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

On the inventory, or in compliance with the inventory.

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

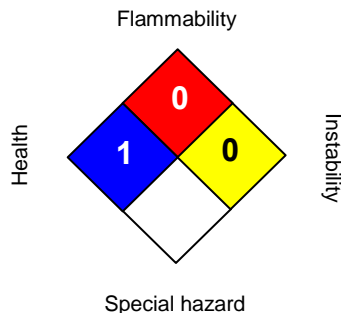
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 05/24/2022

Version Number : 2.5

## SAFETY DATA SHEET

**NALCO® 7408**

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ULTRION™ 8187

Other means of identification : Not applicable.

Recommended use : WATER CLARIFICATION AID

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 10/19/2015

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Not a hazardous substance or mixture.

##### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult SDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

**Other hazards** : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture	: Mixture	
Chemical Name	CAS-No.	Concentration: (%)
Aluminum Chloride Hydroxide	12042-91-0	30 - 60

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

## SAFETY DATA SHEET

### ULTRION™ 8187

- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Hydrogen chloride
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

## SAFETY DATA SHEET

### ULTRION™ 8187

- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Buna-N, Polyurethane, Polypropylene, Polyethylene, Viton, HDPE (high density polyethylene), 100% phenolic resin liner
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Hypalon, Stainless Steel 304, EPDM, Mild steel, Stainless Steel 316L, Neoprene, Epoxy phenolic resin

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Aluminum Chloride Hydroxide	12042-91-0	TWA	2 mg/m3	NIOSH REL

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Colorless
- Odour : None
- Flash point : does not flash
- pH : 4.00 - 4.40, 30 %  
(25 °C)
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -5 °C, ASTM D-1177
- Initial boiling point and boiling : 104 °C

## SAFETY DATA SHEET

### ULTRION™ 8187

range

Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: similar to water
Relative vapour density	: no data available
Relative density	: 1.34 (25 °C) ASTM D-1298
Density	: 11.1 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 % 0 g/l EPA Method 24

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Strong Bases
Hazardous decomposition products	: Decomposition products may include the following materials: Hydrogen chloride

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

### ULTRION™ 8187

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : Acute toxicity estimate : 4,588 mg/kg

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

#### Components

Acute dermal toxicity : Aluminum Chloride Hydroxide  
LD50 rat: > 2,000 mg/kg

# SAFETY DATA SHEET

**ULTRION™ 8187**

## Section: 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

### Product

Toxicity to fish : LC50 Inland Silverside: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Rainbow Trout: 590 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Fathead Minnow: 1,094 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Rainbow Trout: 250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Fathead Minnow: 313 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna: > 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 4,773 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Ceriodaphnia dubia: > 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Daphnia magna: 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 1,250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Ceriodaphnia dubia: 2,500 mg/l  
Exposure time: 48 hrs



## SAFETY DATA SHEET

**ULTRION™ 8187**

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 15 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

LOEC: 30 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

EC25 / IC25: 7.2 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

IC50: 10.3 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

NOEC: 7.5 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

LOEC: 15 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product

### Components

Toxicity to bacteria : Aluminum Chloride Hydroxide  
> 4.4 mg/l

### Components

Toxicity to fish (Chronic toxicity) : Aluminum Chloride Hydroxide  
NOEC: 0.013 mg/l  
Exposure time: 60 d

### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

## SAFETY DATA SHEET

**ULTRION™ 8187**

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

## Section: 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know Act

## SAFETY DATA SHEET

**ULTRION™ 8187**

### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **California Prop 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

#### **TOXIC SUBSTANCES CONTROL ACT (TSCA)**

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

#### **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### **AUSTRALIA**

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### **CHINA**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### **JAPAN**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### **KOREA**

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

#### **NEW ZEALAND**

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### **PHILIPPINES**

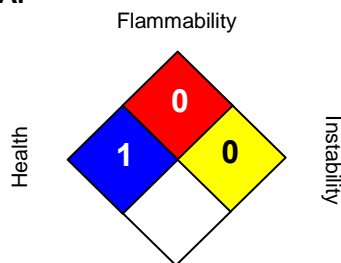
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### **Section: 16. OTHER INFORMATION**

## SAFETY DATA SHEET

**ULTRION™ 8187**

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 10/19/2015  
Version Number : 1.3  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**MATERIAL SAFETY DATA SHEET****PRODUCT****OPTIMER® 9818****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME :** OPTIMER® 9818**APPLICATION :** FLOCCULANT**COMPANY IDENTIFICATION :** Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois  
60563-1198**EMERGENCY TELEPHONE NUMBER(S) :** (800) 424-9300 (24 Hours) CHEMTREC**NFPA 704M/HMIS RATING****HEALTH :** 0 / 1 **FLAMMABILITY :** 1 / 1 **INSTABILITY :** 0 / 0 **OTHER :**  
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Our hazard evaluation has identified the following chemical substance(s) as hazardous. Consult Section 15 for the nature of the hazard(s).

Hazardous Substance(s)	CAS NO	% (w/w)
Hydrotreated Light Distillate	64742-47-8	10.0 - 30.0
Oxyalkylated alcohol	Proprietary	1.0 - 5.0

**3. HAZARDS IDENTIFICATION****\*\*EMERGENCY OVERVIEW\*\*****CAUTION**

May cause irritation with prolonged contact. Toxic to aquatic organisms.

Do not get in eyes, on skin, on clothing. Do not take internally. Wear suitable protective clothing. Keep container tightly closed. Water in contact with the product will cause slippery floor conditions. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Protect product from freezing.

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

**PRIMARY ROUTES OF EXPOSURE :**

Eye, Skin

**HUMAN HEALTH HAZARDS - ACUTE :****EYE CONTACT :**

May cause irritation with prolonged contact.



## MATERIAL SAFETY DATA SHEET

### PRODUCT

**OPTIMER® 9818**

### EMERGENCY TELEPHONE NUMBER(S)

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#### SKIN CONTACT :

May cause irritation with prolonged contact.

#### INGESTION :

Not a likely route of exposure. No adverse effects expected.

#### INHALATION :

Not a likely route of exposure. No adverse effects expected.

#### SYMPTOMS OF EXPOSURE :

##### Acute :

A review of available data does not identify any symptoms from exposure not previously mentioned.

##### Chronic :

Frequent or prolonged contact with product may defat and dry the skin, leading to discomfort and dermatitis.

#### AGGRAVATION OF EXISTING CONDITIONS :

A review of available data does not identify any worsening of existing conditions.

## 4. FIRST AID MEASURES

#### EYE CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

#### SKIN CONTACT :

Remove contaminated clothing. Wash off affected area immediately with soap and plenty of water. If symptoms develop, seek medical advice.

#### INGESTION :

Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If symptoms develop, seek medical advice.

#### INHALATION :

Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

#### NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

## 5. FIRE FIGHTING MEASURES

FLASH POINT : > 212 °F / > 100 °C ( PMCC )

LOWER EXPLOSION LIMIT : Not flammable

UPPER EXPLOSION LIMIT : Not flammable

#### EXTINGUISHING MEDIA :

Foam, Dry powder, Carbon dioxide, Other extinguishing agent suitable for Class B fires



## MATERIAL SAFETY DATA SHEET

PRODUCT

**OPTIMER® 9818**

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

### UNSUITABLE EXTINGUISHING MEDIA :

Do not use water unless flooding amounts are available.

### FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS :

Notify appropriate government, occupational health and safety and environmental authorities. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

### METHODS FOR CLEANING UP :

**SMALL SPILLS:** Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

### ENVIRONMENTAL PRECAUTIONS :

This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

## 7. HANDLING AND STORAGE

### HANDLING :

Do not take internally. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled. Avoid eye and skin contact.

### STORAGE CONDITIONS :

Store separately from oxidizers. Store the containers tightly closed.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OCCUPATIONAL EXPOSURE LIMITS :

Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

### ACGIH/TLV :

Substance(s)

Oil Mist (Mineral)

TWA: 5 mg/m<sup>3</sup>

### OSHA/PEL :

**MATERIAL SAFETY DATA SHEET****PRODUCT****OPTIMER® 9818****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****Substance(s)**

Oil Mist (Mineral)

TWA: 5 mg/m3

**ENGINEERING MEASURES :**

General ventilation is recommended.

**RESPIRATORY PROTECTION :**

Due to its low volatility and toxicity, the hazard potential associated with this material is relatively low. Respiratory protection is not normally needed.

**HAND PROTECTION :**

Nitrile gloves, PVC gloves

**SKIN PROTECTION :**

Wear standard protective clothing.

**EYE PROTECTION :**

Wear chemical splash goggles.

**HYGIENE RECOMMENDATIONS :**

Keep an eye wash fountain available. Keep a safety shower available.

**HUMAN EXPOSURE CHARACTERIZATION :**

Based on our recommended product application and personal protective equipment, the potential human exposure is: Low

**9. PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE      Liquid

APPEARANCE      Off-white

ODOR      Hydrocarbon

SPECIFIC GRAVITY      1.06 @ 75 °F / 23.9 °C

DENSITY      8.81 lb/gal

SOLUBILITY IN WATER      Emulsifiable

VISCOSITY      510 cps @ 75 °F / 23.9 °C

POUR POINT      -2 °F / -18.8 °C

Note: These physical properties are typical values for this product and are subject to change.

**10. STABILITY AND REACTIVITY****STABILITY :**

Stable under normal conditions.



**MATERIAL SAFETY DATA SHEET****PRODUCT****OPTIMER® 9818****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****HAZARDOUS POLYMERIZATION :**

Hazardous polymerization will not occur.

**CONDITIONS TO AVOID :**

Freezing temperatures.

**MATERIALS TO AVOID :**

Addition of water results in gelling. Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

**HAZARDOUS DECOMPOSITION PRODUCTS :**

Under fire conditions: Oxides of carbon, Oxides of nitrogen

**11. TOXICOLOGICAL INFORMATION**

No toxicity studies have been conducted on this product.

**SENSITIZATION :**

This product is not expected to be a sensitizer.

**CARCINOGENICITY :**

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

**HUMAN HAZARD CHARACTERIZATION :**

Based on our hazard characterization, the potential human hazard is: Moderate

**12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL EFFECTS :**

No toxicity studies have been conducted on this product.

**ACUTE FISH RESULTS :**

Species	Exposure	LC50	Test Descriptor
Rainbow Trout	96 hrs	8,800 mg/l	
Sheepshead Minnow	96 hrs	> 1,000 mg/l	

Rating : Essentially non-toxic

**ACUTE INVERTEBRATE RESULTS :**

Species	Exposure	LC50	EC50	Test Descriptor
Daphnia magna	48 hrs	190 mg/l		
Mysid Shrimp ( <i>M. litoralis</i> )	96 hrs	400 mg/l		

Rating : Essentially non-toxic

**MATERIAL SAFETY DATA SHEET****PRODUCT****OPTIMER® 9818****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION**

Based on our hazard characterization, the potential environmental hazard is: Moderate

Based on our recommended product application and the product's characteristics, the potential environmental exposure is: Moderate

If released into the environment, see CERCLA/SUPERFUND in Section 15.

**13. DISPOSAL CONSIDERATIONS**

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

**14. TRANSPORT INFORMATION**

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

**LAND TRANSPORT :**

Proper Shipping Name :	PRODUCT IS NOT REGULATED DURING TRANSPORTATION
------------------------	--

**AIR TRANSPORT (ICAO/IATA) :**

Proper Shipping Name :	PRODUCT IS NOT REGULATED DURING TRANSPORTATION
------------------------	--

**MARINE TRANSPORT (IMDG/IMO) :**

Proper Shipping Name :	PRODUCT IS NOT REGULATED DURING TRANSPORTATION
------------------------	--

**15. REGULATORY INFORMATION****NATIONAL REGULATIONS, USA :****OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :**

Based on our hazard evaluation, the following substance(s) in this product is/are hazardous and the reason(s) is/are shown below.

Hydrotreated Light Distillate : Non-Hazardous

Oxyalkylated alcohol : Eye irritant



## MATERIAL SAFETY DATA SHEET

PRODUCT

**OPTIMER® 9818**

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

CERCLA/SUPERFUND, 40 CFR 117, 302 :

Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :

This product does not contain substances on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA) :

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :

None of the substances are specifically listed in the regulation.

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :

None of the substances are specifically listed in the regulation.

CALIFORNIA PROPOSITION 65 :

This product does not contain substances which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS :

None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS :

None of the substances are specifically listed in the regulation.

NATIONAL REGULATIONS, CANADA :

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION :

Not considered a WHMIS controlled product.



## MATERIAL SAFETY DATA SHEET

### PRODUCT

**OPTIMER® 9818**

### EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :

The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

#### INTERNATIONAL CHEMICAL CONTROL LAWS

##### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS) and are listed on the Australian Inventory of Chemical Substances (AICS).

##### EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

##### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Ministry of International Trade & Industry List (MITI).

##### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

##### THE PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippine Inventory of Chemicals & Chemical Substances (PICCS).

## 16. OTHER INFORMATION

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

\* The human risk is: Low

\* The environmental risk is: Moderate

Any use inconsistent with our recommendations may affect the risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

#### REFERENCES



## MATERIAL SAFETY DATA SHEET

PRODUCT

**OPTIMER® 9818**

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight# (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Prepared By : Product Safety Department

Date issued : 02/22/2004

Version Number : 1.5

## SAFETY DATA SHEET

**H-550**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : H-550

Other means of identification : Not applicable.

Recommended use : MICROBIOCIDES

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 03/28/2024

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Respiratory sensitization : Category 1

Skin sensitization : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Toxic if swallowed.  
Harmful in contact with skin or if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Use only outdoors or in a

## SAFETY DATA SHEET

H-550

well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection.

### Response:

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Glutaraldehyde	111-30-8	50
Methanol	67-56-1	0.1 - 1

### Section: 4. FIRST AID MEASURES

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.

## SAFETY DATA SHEET

**H-550**

- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters, unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : not determined

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



## SAFETY DATA SHEET

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### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Glutaraldehyde	111-30-8	Ceiling	0.2 ppm 0.8 mg/m <sup>3</sup>	NIOSH REL
		Ceiling	0.05 ppm	ACGIH

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.  
Nitrile-rubber, Butyl-Rubber and Neoprene gloves.  
Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.  
Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Organic vapor cartridge.  
In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

## SAFETY DATA SHEET

**H-550**

Colour	: colourless
Odour	: Aldehyde
Flash point	: , Method: ASTM D 56, does not flash
pH	: 3.1 - 4.5,(100 %), (25 °C)
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -21 °C, ASTM D-1177
Initial boiling point and boiling range	: 100.5 °C, (760 mm Hg), Method: ASTM D 86
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 16 mm Hg, (20 °C), ASTM D 323,
Relative vapour density	: 1.1
Relative density	: 1.11 - 1.13, (25 °C), ASTM D-1298
Density	: 9.4 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 21 mPa.s (20 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 54 %, 605.12 g/l, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Amines Strong Bases

# SAFETY DATA SHEET

H-550

Strong acids

Hazardous decomposition products : Decomposition products may include the following materials:  
Carbon oxides

## Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

### Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Harmful in contact with skin. Causes severe skin burns. May cause allergic skin reaction.

Ingestion : Toxic if swallowed. Causes digestive tract burns.

Inhalation : May cause allergic respiratory reaction. May cause respiratory tract irritation. Harmful if inhaled. May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

### Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Irritation, Corrosion, Allergic reactions

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Toxicity

#### Product

Acute oral toxicity : LD50 rat: 200 mg/kg  
Test substance: Product

Acute inhalation toxicity : LC50 rat: > 27 ppm  
Exposure time: 4 hrs  
Test substance: Product  
LC50 rat: 15 mg/l  
Exposure time: 4 hrs  
Test atmosphere: vapour  
Test substance: Product

Acute dermal toxicity : LD50 rabbit: 1,749 mg/kg  
Test substance: Product

Skin corrosion/irritation : no data available

Serious eye damage/eye : no data available

## SAFETY DATA SHEET

**H-550**

irritation

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Very toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.

#### Product

Toxicity to fish : LC50 *Lepomis macrochirus* (Bluegill sunfish): 22.4 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
Test Type: Static

LC50 *Pimephales promelas* (fathead minnow): 10.8 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Cyprinodon variegatus* (sheepshead minnow): 32 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

LC50 *Oncorhynchus mykiss* (rainbow trout): 12 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC *Lepomis macrochirus* (Bluegill sunfish): 10 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
Test Type: Static

NOEC *Cyprinodon variegatus* (sheepshead minnow): 24 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC *Oncorhynchus mykiss* (rainbow trout): 9 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

Toxicity to daphnia and other : LC50 *Daphnia magna* (Water flea): 0.69 mg/l

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aquatic invertebrates

Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

LC50 Shore Crab: 465 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Static

LC50 Grass Shrimp: 41 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Static

LC50 Mysid Shrimp (*Mysidopsis bahia*): 7.1 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

LC50 *Acartia tonsa*: 0.11 mg/l  
Exposure time: 48 hrs  
Test substance: Active Substance  
Test Type: Static

EC50 American Oyster: 0.78 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC Mysid Shrimp (*Mysidopsis bahia*): 0.78 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC American Oyster: 0.16 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC *Acartia tonsa*: 0.029 mg/l  
Exposure time: 48 hrs  
Test substance: Active Substance  
Test Type: Static

EC50 *Daphnia magna*: 0.75 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

Toxicity to algae

: LC50 Marine Algae (*Skeletonema costatum*): 0.61 mg/l  
Exposure time: 72 hrs  
Test substance: Active Substance

LC50 Algae (*Scenedesmus subspicatus*): 0.97 mg/l  
Exposure time: 96 hrs

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Test substance: Active Substance

LC50 Green Algae (*Pseudokirchneriella subcapitata*,  
previously *Selenastrum capricornutum*): 2.64 mg/l

Exposure time: 72 hrs

Test substance: Product

NOEC Marine Algae (*Skeletonema costatum*): 0.33 mg/l

Exposure time: 72 hrs

Test substance: Active Substance

NOEC Algae (*Scenedesmus subspicatus*): 0.33 mg/l

Exposure time: 96 hrs

Test substance: Active Substance

Toxicity to bacteria : LC50 Sewage Microorganisms: > 50 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

: LC50 Bacteria: 17 - 25 mg/l  
Exposure time: 16 hrs  
Test substance: Active Substance

Toxicity to fish (Chronic toxicity) : LOEC: 2.9 mg/l  
Exposure time: 28 Days  
Species: Fathead Minnow  
Test substance: Active Substance

NOEC: 1.4 mg/l  
Exposure time: 28 Days  
Species: Fathead Minnow  
Test substance: Active Substance

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 4.25 mg/l  
End point: Reproduction  
Exposure time: 21 Days  
Species: *Daphnia magna*  
Test substance: Active Substance  
Test Type: 3 Brood

Toxicity to terrestrial organisms : LC50 Bobwhite Quail: Exposure time: 8 Days  
Test substance: Active Substance

LC50 Mallard Duck: Exposure time: 8 Days  
Test substance: Active Substance

LC50 Mallard Duck: 933 mg/kg  
Test substance: 50% Active Ingredient

### Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be readily biodegradable.

## SAFETY DATA SHEET

**H-550**

Chemical Oxygen Demand (COD): 900,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

0 mg/l

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name	: CORROSIVE LIQUID, TOXIC, N.O.S
Technical name(s)	: GLUTARALDEHYDE

## SAFETY DATA SHEET

**H-550**

UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S  
Technical name(s) : GLUTARALDEHYDE  
UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S  
Technical name(s) : GLUTARALDEHYDE  
UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

\*Marine pollutant : GLUTARALDEHYDE

\* Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

## Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.  
  
No substances are subject to TSCA 12(b) export notification requirements.

**EPA Reg. No.** : 464-704-1706

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitisation  
Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.



## SAFETY DATA SHEET

H-550

### California Prop. 65

 **WARNING:** Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Methanol

67-56-1

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

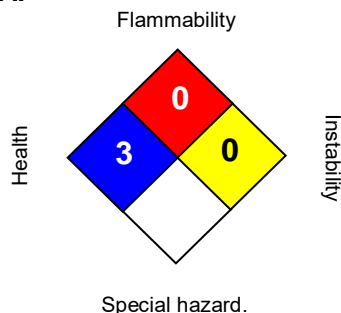
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

# SAFETY DATA SHEET

H-550

## NFPA:



## HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 03/28/2024  
Version Number : 1.6  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### NALCO® 71D5 PLUS

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 71D5 PLUS

Other means of identification : Not applicable.

Recommended use : ANTIFOAM

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/07/2024

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Flammable liquids : Category 4

Acute toxicity (Inhalation) : Category 4

Specific target organ toxicity - repeated exposure (Dermal) : Category 2 (Blood, Bone marrow, Liver)

Aspiration hazard : Category 1

##### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid  
May be fatal if swallowed and enters airways.  
Harmful if inhaled.  
May cause damage to organs (Blood, Bone marrow, Liver) through prolonged or repeated exposure in contact with skin.

Precautionary Statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician. IF INHALED: Remove person to fresh

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air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Get medical advice/ attention if you feel unwell.

**Storage:**

Store in a well-ventilated place.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Straight Run Middle Distillate	64741-44-2	30 - 60
Petroleum distillates, hydrotreated light	64742-47-8	10 - 30
Polypropylene Glycol	25322-69-4	10 - 30
Stearic Acid	57-11-4	1 - 5
1-Octanol	111-87-5	1 - 5
Fatty Alkyl Polyglycol	Proprietary	1 - 5
Aliphatic alcohol	Proprietary	1 - 5

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed - can enter lungs and cause damage. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Foam  
Carbon dioxide  
Dry powder  
Other extinguishing agent suitable for Class B fires  
For large fires, use water spray or fog, thoroughly drenching the burning material.

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Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Fire Hazard Keep away from heat and sources of ignition. Flash back possible over considerable distance.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Remove all sources of ignition. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Do not flush into surface water or sanitary sewer system.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling	: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only with adequate ventilation.
Conditions for safe storage	: Keep away from heat and sources of ignition. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature	: 10 °C to 65 °C
Suitable material	: Keep in properly labelled containers.
Unsuitable material	: not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

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Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Petroleum distillates, hydrotreated light	64742-47-8	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z1
		TWA	200 mg/m <sup>3</sup> (as total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		STEL (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
Polypropylene Glycol	25322-69-4	TWA (Aerosol.)	10 mg/m <sup>3</sup>	AIHA WEEL
Stearic Acid	57-11-4	TWA (Inhalable fraction)	10 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable fraction)	3 mg/m <sup>3</sup>	ACGIH
1-Octanol	111-87-5	TWA	50 ppm	AIHA WEEL

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.  
Nitrile rubber  
Viton® gloves  
Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.  
Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Organic vapor cartridge.  
In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk

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assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: clear light yellow to amber
Odour	: hydrocarbon-like
Flash point	: 92 °C, Method: ASTM D 93, Pensky-Martens closed cup
pH	: Not applicable.
Odour Threshold	: no data available
Melting point/freezing point	: POUR POINT: -18 °C
Initial boiling point and boiling range	: 132.2 °C, Method: ASTM D 86
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 5.1 mm Hg, (37.8 °C), ASTM D 5191,
Relative vapour density	: no data available
Relative density	: 0.84, (25 °C), ASTM D-1298 0.8583, (15 °C), ASTM D4052 0.8434, (50 °C), ASTM D4052
Density	: 0.84 g/cm <sup>3</sup> , 7.0 lb/gal
Water solubility	: insoluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 10 mPa.s (22.2 °C), Method: ASTM D 2983
Viscosity, kinematic	: 7.94 mm <sup>2</sup> /s (40 °C), Method: ASTM D 445
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.

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Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: May be fatal if swallowed and enters airways.
Inhalation	: Harmful if inhaled.
Chronic Exposure	: Health injuries are not known or expected under normal use.

##### Experience with human exposure

Eye contact	: No symptoms known or expected.
Skin contact	: No symptoms known or expected.
Ingestion	: Vomiting
Inhalation	: No information available.

##### Toxicity

###### Product

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: 3.38 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: Species: rabbit Result: 6.0 Method: Draize Test Test substance: Similar Product
Respiratory or skin	: no data available



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sensitization

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Harmful to aquatic life.  
Toxic to aquatic life with long lasting effects.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 310 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Pimephales promelas (fathead minnow): 190 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Oncorhynchus mykiss (rainbow trout): < 78 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 100 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

NOEC Inland Silverside: 125 mg/l  
End point: mortality  
Exposure time: 48 h  
Test substance: Product

LC50 Inland Silverside: 325 mg/l  
End point: mortality  
Exposure time: 48 h  
Test substance: Product

LOEC Inland Silverside: 250 mg/l  
End point: mortality  
Exposure time: 48 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 220 mg/l  
Exposure time: 48 hrs

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Test substance: Product

LC50 Ceriodaphnia dubia: 4.32 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

EC50 Daphnia magna (Water flea): 130 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Daphnia magna (Water flea): 16 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Ceriodaphnia dubia: 2.50 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

NOEC Americamysis bahia: 50 mg/l

End point: mortality

Exposure time: 48 h

Test substance: Product

EC50 Americamysis bahia: 73.1 mg/l

End point: mortality

Exposure time: 48 h

Test substance: Product

LOEC Americamysis bahia: 100 mg/l

End point: mortality

Exposure time: 48 h

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1.5 mg/l  
End point: Survival  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

LOEC: 3.0 mg/l

End point: Survival

Exposure time: 7 d

Species: Ceriodaphnia dubia

Test substance: Product

LOEC: 0.38 mg/l

End point: Reproduction

Exposure time: 7 d

Species: Ceriodaphnia dubia

Test substance: Product

EC25 / IC25: 0.40 mg/l

Exposure time: 7 d

Species: Ceriodaphnia dubia

Test substance: Product

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#### Components

Toxicity to algae : Petroleum distillates, hydrotreated light  
EC50 *Pseudokirchneriella subcapitata* (green algae): > 1,000 mg/l  
Exposure time: 72 h

#### Components

Toxicity to fish (Chronic toxicity) : Petroleum distillates, hydrotreated light  
NOEC: 0.173 mg/l  
Exposure time: 28 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

#### Persistence and degradability

Biodegradability : Result: rapidly degradable

Total Organic Carbon (TOC) : 195,870 mg/l

Chemical Oxygen Demand (COD): 2,200,000 mg/l

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: 10 - 30%
Water	: 30 - 50%
Soil	: 30 - 50%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with

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### NALCO® 71D5 PLUS

local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

For packages less than or equal to 119 Gallons:

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### *For packages greater than 119 Gallons:*

Proper shipping name : COMBUSTIBLE LIQUID, N.O.S.  
Technical name(s) : Petroleum distillates, hydrotreated light  
UN/ID No. : NA 1993  
Transport hazard class(es) : CBL  
Packing group : III

##### Air transport (IATA)

|| Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Sea transport (IMDG/IMO)

|| Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

##### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Specific target organ toxicity (single or repeated exposure)  
Aspiration hazard

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**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

##### Taiwan Chemical Substance Inventory

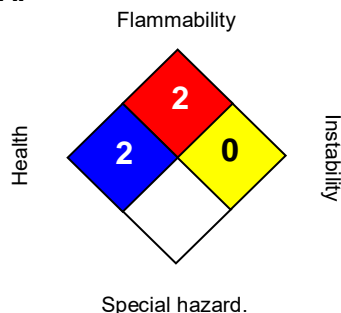
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

#### Section: 16. OTHER INFORMATION

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### NFPA:



### HMIS III:

HEALTH	2*
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 02/07/2024  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**INOC™ 7161**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : INOC™ 7161

Other means of identification : Not applicable.

Recommended use : BIOENGINEERING  
BIOAUGMENTATION CULTURES

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/26/2017

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Eye irritation : Category 2B

#### GHS Label element

Signal Word : Warning

Hazard Statements : Causes eye irritation.  
May form combustible dust concentrations in air

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Do not breathe dust.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.  
**Storage:**  
Protect product from freezing.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

No hazardous ingredients

### Section: 4. FIRST AID MEASURES

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In case of eye contact	: Rinse with plenty of water. Get medical attention if symptoms occur.
In case of skin contact	: Wash off with soap and plenty of water. Get medical attention if symptoms occur.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible. Handling operations may generate combustible dust in the finely divided and suspended state. To reduce the potential for dust explosions and/or fire, do not permit dust to accumulate. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Sweep up and shovel into suitable containers for disposal.



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**INOC™ 7161**

## Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Wash hands thoroughly after handling. Use only with adequate ventilation. Avoid generating dusts. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. Do not use, store, spill or pour near heat, sparks or open flame.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Protect product from freezing.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: HDPE (high density polyethylene), Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : not determined

## Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

## Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Powder
- Colour : brown
- Odour : Yeast like
- Flash point : does not flash
- pH : 6 - 7,(100 %)
- Odour Threshold : no data available

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Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: no data available
Density	: no data available
Water solubility	: insoluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, Calculation method

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Moisture Avoid generating dusts.
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Eye contact, Skin contact
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### Potential Health Effects

Eyes	: Causes eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

### Experience with human exposure

Eye contact	: Redness, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity	: LD50 rat: 3,700 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

## Section: 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects	: This product has no known ecotoxicological effects.
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### Product

## SAFETY DATA SHEET

**INOC™ 7161**

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 6,156 mg/l  
Exposure time: 96 h  
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 2,500 mg/l  
Exposure time: 96 h  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Ceriodaphnia dubia: 252 mg/l  
Exposure time: 48 h  
Test substance: Product

NOEC Ceriodaphnia dubia: 63 mg/l  
Exposure time: 48 h  
Test substance: Product

### Persistence and degradability

no data available

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 30 - 50%

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

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### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

## SAFETY DATA SHEET

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### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

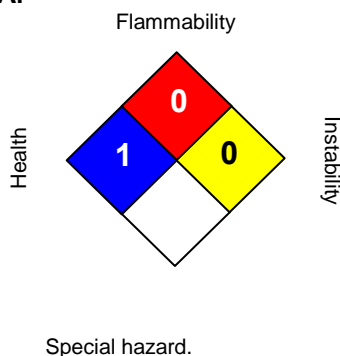
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/26/2017  
Version Number : 1.1  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**NALCO® 7330**

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO® 7330

Other means of identification : Not applicable.

Recommended use : BIOCIDES

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 01/13/2025

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Corrosive to metals : Category 1

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4


Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Skin sensitization : Category 1

**GHS Label element**

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : May be corrosive to metals.  
Harmful if swallowed, in contact with skin or if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
Keep only in original container. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace.  
**Response:**

## SAFETY DATA SHEET

**NALCO® 7330**

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

**Storage:**

Store in corrosive resistant container with a resistant inner liner.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Magnesium Nitrate	10377-60-3	1 - 5
5-Chloro-2-Methyl-4-Isothiazolin-3-one	26172-55-4	1.1
2-Methyl-4-Isothiazolin-3-one	2682-20-4	0.4

### Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



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### NALCO® 7330

- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Carbon oxides nitrogen oxides (NOx) Hydrogen chloride metal oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : This pesticide is toxic to fish and wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters, unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this pesticide only as specified on this label.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. DEACTIVATION SOLUTION - prepare a fresh solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water (i.e. add 50 grams of sodium bicarbonate per 1 liter of household bleach, seal container then shake well for 1 minute) away from the immediate area of spill. Prepare 10 times the estimated volume of the residual spill. The materials and equipment for preparing solutions should be kept available for use in areas where spills may occur.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

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- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: HDPE (high density polyethylene), PTFE, Perfluoroelastomer, Polyvinylidene difluoride, Polypropylene, CPVC (rigid), Plexiglass
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Carbon steel, Stainless Steel 304, Nitrile, Brass, Nylon, Neoprene, EPDM, Fluoroelastomer, Plasite 7122, Stainless Steel 316L

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield
- Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources. Nitrile-rubber, Butyl-Rubber and Neoprene gloves. Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : No personal respiratory protective equipment normally required. If user operations generate significant vapours that cannot be controlled with ventilation or engineering controls, use an approved air-purifying respirator fitted with a gas and vapour cartridge. Use a particulate pre-filter where operations generate significant mists or aerosols. Recommended gas and vapour cartridge: Multi-purpose combination filter. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

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### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Clear, Colorless to light green - yellow
Odour	: pungent
Flash point	: Not applicable.
pH	: 2 - 5
Odour Threshold	: no data available
Melting point/freezing point	: -4 °C, ASTM D-1177
Initial boiling point and boiling range	: 100 °C, Method: ASTM D 86
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: similar to water
Relative vapour density	: no data available
Relative density	: 1.026, (25 °C),
Density	: 8.5 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 3 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.

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Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) metal oxides Hydrogen chloride

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Harmful in contact with skin. Causes severe skin burns. May cause allergic skin reaction.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: Harmful if inhaled. May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Irritation, Corrosion, Allergic reactions
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: 20.39 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin	: no data available

## SAFETY DATA SHEET

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sensitization

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Toxic to aquatic life.  
Harmful to aquatic life with long lasting effects.

#### Product

Toxicity to fish : LC50 Cyprinodon variegatus (sheepshead minnow): 32 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Inland Silverside: 16.62 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Rainbow Trout: 7.5 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Bluegill Sunfish: 13.3 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Cyprinodon variegatus (sheepshead minnow): 0.3 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC Cyprinodon variegatus (sheepshead minnow): 18 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 12.5 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Mysid Shrimp (Mysidopsis bahia): 18 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Ceriodaphnia dubia: 13 mg/l

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Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (*Mysidopsis bahia*): < 10 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Daphnia magna*: 15.2 mg/l  
Exposure time: 48 hrs  
Test substance: Product

EC50 *Daphnia magna*: 15.2 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC *Daphnia magna*: 6.3 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : EC50 Marine Algae (*Skeletonema costatum*): 0.003 mg/l  
Exposure time: 72 h  
Test substance: Active Substance

EC50 Green Algae (*Pseudokirchneriella subcapitata*,  
previously *Selenastrum capricornutum*): 0.018 mg/l  
Exposure time: 72 h  
Test substance: Active Substance

### Components

Toxicity to fish (Chronic toxicity) : 2-Methyl-4-Isothiazolin-3-one  
NOEC: 4.93 mg/l  
Exposure time: 98 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

### Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 2-Methyl-4-Isothiazolin-3-one  
NOEC: 0.044 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)

### Persistence and degradability

Biodegradability : Result: no data available

Total Organic Carbon (TOC) : 7,850 mg/l

Chemical Oxygen Demand (COD): 20,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

20 mg/l

Test Descriptor

### Mobility

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### NALCO® 7330

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

no data available

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name	: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s)	: 5-Chloro-2-Methyl-4-Isothiazolin-3-one
UN/ID No.	: UN 3265
Transport hazard class(es)	: 8
Packing group	: II

#### Air transport (IATA)

Proper shipping name	: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s)	: 5-Chloro-2-Methyl-4-Isothiazolin-3-one

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**NALCO® 7330**

UN/ID No. : UN 3265  
Transport hazard class(es) : 8  
Packing group : II

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
Technical name(s) : 5-Chloro-2-Methyl-4-Isothiazolin-3-one  
UN/ID No. : UN 3265  
Transport hazard class(es) : 8  
Packing group : II

\*Marine pollutant : 5-Chloro-2-Methyl-4-Isothiazolin-3-one

\* Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

## Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements: 5-Chloro-2-Methyl-4-Isothiazolin-3-one

**EPA Reg. No.** : 1706-153

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Cupric Nitrate	3251-23-8	100	132275

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Acute toxicity (any route of exposure)  
Respiratory or skin sensitisation  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.



## SAFETY DATA SHEET

**NALCO® 7330**

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

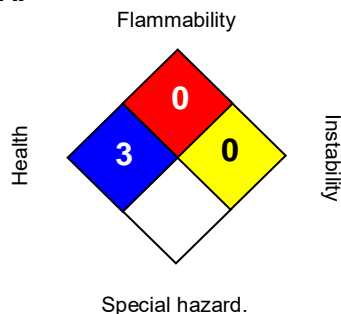
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECIS).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 01/13/2025  
Version Number : 4.0  
Prepared By : Regulatory Affairs

## SAFETY DATA SHEET

**NALCO® 7330**

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

**NALCO® 7357**

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO® 7357

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/14/2024

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations. Protect product from freezing.

**Other hazards** : None known.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Mixture

**||** No hazardous ingredients

**Section: 4. FIRST AID MEASURES**

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

## SAFETY DATA SHEET

**NALCO® 7357**

- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Protect product from freezing.

## SAFETY DATA SHEET

**NALCO® 7357**

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : colourless

Odour : odourless

Flash point : > 100 °C, Method: ASTM D 93, Pensky-Martens closed cup

pH : 7.00 - 10.00,(100 %)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -6.1 °C

Initial boiling point and boiling range : no data available

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

Lower explosion limit : no data available

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### NALCO® 7357

Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.4,
Density	: 1.39 g/cm <sup>3</sup> , 11.6 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: < 100 mm <sup>2</sup> /s
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: None known
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

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### Experience with human exposure

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : LD50 rat: 4,233 mg/kg  
Test substance: Active Substance  
Acute inhalation toxicity : LD50 rat: > 1.93 mg/l  
Exposure time: 4 hrs  
Test substance: Active Substance  
Acute toxicity estimate: 14.52 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

## Section: 12. ECOLOGICAL INFORMATION

### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

### Product

Toxicity to fish : LC50 Lepomis macrochirus (Bluegill sunfish): 280 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
LC50 Oncorhynchus mykiss (rainbow trout): 220 - 290 mg/l

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Exposure time: 96 hrs  
Test substance: Product

LC50 Inland Silverside: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Mysid Shrimp (Mysidopsis bahia): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

EC50 Daphnia magna (Water flea): 1,948 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

NOEC Mysid Shrimp (Mysidopsis bahia): 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Daphnia magna (Water flea): 1,250 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

### Persistence and degradability

Biodegradability : Result: Not applicable - inorganic

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Chemical Oxygen Demand (COD): < 500 mg/l

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;



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Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

## Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

### EPCRA - Emergency Planning and Community Right-to-Know Act

### CERCLA Reportable Quantity

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This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

#### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### **California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

##### **United States TSCA Inventory**

On or in compliance with the active portion of the TSCA inventory

##### **Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)**

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### **Canadian Domestic Substances List (DSL)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### **Japan. ENCS - Existing and New Chemical Substances Inventory**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### **Korea. Korean Existing Chemicals Inventory (KECI)**

On the Korea Existing Chemicals Inventory.

##### **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### **China Inventory of Existing Chemical Substances**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### **Taiwan Chemical Substance Inventory**

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

##### **New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand**

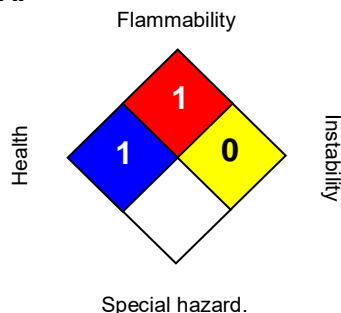
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### **Section: 16. OTHER INFORMATION**

## SAFETY DATA SHEET

**NALCO® 7357**

### NFPA:



### HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/14/2024  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

**NALCO® 22305**

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO® 22305

Other means of identification : Not applicable.

Recommended use : BOILER WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 10/21/2024

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Protect product from freezing.  
Store in accordance with local regulations.

**Other hazards** : None known.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Mixture

No hazardous ingredients

**Section: 4. FIRST AID MEASURES**

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

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- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

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- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Buna-N, Polypropylene, Polyethylene, CPVC (rigid), Polyurethane, HDPE (high density polyethylene), Epoxy phenolic resin, 100% phenolic resin liner
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: EPDM, Brass, Neoprene, Fluoroelastomer, Chlorosulfonated polyethylene rubber

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Orange fluorescent
- Odour : odourless
- Flash point : > 93.3 °C
- pH : 9.0 - 10.8,(100 %), (25 °C)
- Odour Threshold : no data available
- Melting point/freezing point : Freezing Point: -1.0 °C
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : Not applicable.

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Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 0.5 mm Hg, (38 °C),
Relative vapour density	: no data available
Relative density	: 1.05, (25.0 °C),
Density	: 1.04 g/cm <sup>3</sup> , 8.7 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 7 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.

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**NALCO® 22305**

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

### Experience with human exposure

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : no data available

Acute inhalation toxicity : no data available

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

## Section: 12. ECOLOGICAL INFORMATION

### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### **Product**

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,624 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product



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NOEC Pimephales promelas (fathead minnow): 2,500 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : EC50 Daphnia magna (Water flea): 2,973 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Daphnia magna (Water flea): 2,500 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 4,997 mg/l  
End point: Growth  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: > 6,000 mg/l  
End point: Survival  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: 6,000 mg/l  
End point: Growth  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 6,000 mg/l  
End point: Survival  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 3,000 mg/l  
End point: Growth  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC: 6,000 mg/l  
End point: Reproduction  
Exposure time: 21 Days  
Species: Daphnia magna  
Test substance: Product

EC25 / IC25: 3,318 mg/l  
End point: Reproduction  
Exposure time: 21 Days

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Species: Daphnia magna  
Test substance: Product

NOEC: 3,000 mg/l  
End point: Reproduction  
Exposure time: 21 Days  
Species: Daphnia magna  
Test substance: Product

### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

Chemical Oxygen Demand (COD): 96,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	111 mg/l	Product

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 10 - 30%
Soil	: 70 - 90%

The portion in water is expected to be soluble or dispersible.

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## SAFETY DATA SHEET

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### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

## SAFETY DATA SHEET

**NALCO® 22305**

### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

### Korea. Korean Existing Chemicals Inventory (KECI)

Contains substance(s) not listed on the Korea Existing Chemicals Inventory.

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

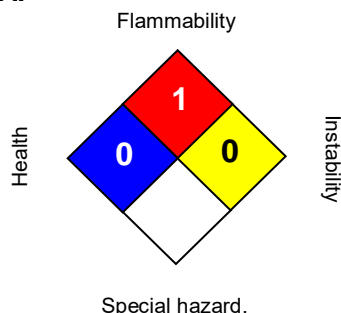
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 10/21/2024  
Version Number : 1.4  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality

## SAFETY DATA SHEET

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specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® TRAC107 PLUS

Other means of identification : Not applicable.

Recommended use : CLOSED LOOP TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 03/10/2020

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Skin corrosion : Category 1B  
Serious eye damage : Category 1

##### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair):  
Take off immediately all contaminated clothing. Rinse skin with water/shower. IF  
INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

Chemical Name	CAS-No.	Concentration: (%)
Sodium Hydroxide	1310-73-2	1 - 5
Sodium Tetraborate	1330-43-4	1 - 5

#### Section: 4. FIRST AID MEASURES

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides metal oxides Sulphur oxides Oxides of phosphorus
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use., Stainless Steel 304, Stainless Steel 316L, Brass, Polyethylene, PVC, HDPE (high density polyethylene), Buna-N, EPDM, Chlorosulfonated polyethylene rubber, Fluoroelastomer
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Mild steel, coated steel, Neoprene, Polyurethane

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z1
Sodium Tetraborate	1330-43-4	TWA	1 mg/m3	NIOSH REL
		TWA (Inhalable fraction)	2 mg/m3 (Borate)	ACGIH
		STEL (Inhalable fraction)	6 mg/m3 (Borate)	ACGIH

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment



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### NALCO® TRAC107 PLUS

Eye protection	: Safety goggles Face-shield
Hand protection	: Wear protective gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Clear, yellow to amber
Odour	: Ammoniacal
Flash point	: does not flash
pH	: 13,(100 %)
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.1, (15.5 °C),
Density	: 1.10 g/cm <sup>3</sup> , 9.2 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-	: no data available

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

octanol/water

Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Strong acids
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides metal oxides Sulphur oxides Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: May damage fertility or the unborn child if swallowed.

##### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

Inhalation : Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity : no data available

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### **Product**

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 1,688 mg/l

Exposure time: 96 hrs

Test substance: Product

Test Type: Static

LC50 Pimephales promelas (fathead minnow): > 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

Test Type: Static

NOEC Oncorhynchus mykiss (rainbow trout): 1,250 mg/l

Exposure time: 96 hrs

Test substance: Product

Test Type: Static

NOEC Pimephales promelas (fathead minnow): 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

Test Type: Static

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): > 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

NOEC Daphnia magna (Water flea): 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

Chemical Oxygen Demand (COD): 58,000 mg/l

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

##### Land transport (DOT)

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 24,700 lbs  
RQ Component : SODIUM HYDROXIDE

##### Air transport (IATA)

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 24,700 lbs  
RQ Component : SODIUM HYDROXIDE

##### Sea transport (IMDG/IMO)

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III

#### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

##### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
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## SAFETY DATA SHEET

### NALCO® TRAC107 PLUS

Sodium Hydroxide	1310-73-2	1000	24699
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#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

##### Taiwan Chemical Substance Inventory

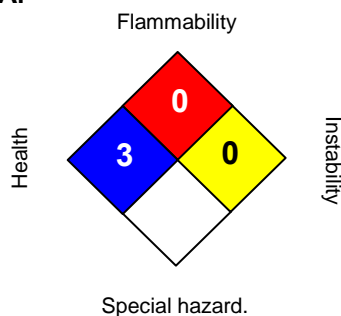
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

## SAFETY DATA SHEET

**NALCO® TRAC107 PLUS**

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 03/10/2020  
Version Number : 1.3  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**NALSPERSE™ 73550**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALSPERSE™ 73550

Other means of identification : Not applicable.

Recommended use : DISPERSANT AND DETERGENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 07/30/2024

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes serious eye damage.

Precautionary Statements : **Prevention:**  
Wear eye protection/face protection.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Nonionic Surfactant	Proprietary	30 - 60
Nonionic Alkyl Polyglycoside	Proprietary	10 - 30



## SAFETY DATA SHEET

**NALSPERSE™ 73550**

### Section: 4. FIRST AID MEASURES

- |   |   |   |
|---|---|---|
| In case of eye contact                                      | : | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. |
| In case of skin contact                                     | : | Wash off with soap and plenty of water. Get medical attention if symptoms occur.  |
| If swallowed  | : | Rinse mouth. Get medical attention if symptoms occur.   |
| If inhaled  | : | Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.  |
| Protection of first-aiders                                  | : | In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.  |
| Notes to physician  | : | Treat symptomatically.  |
| Most important symptoms and effects, both acute and delayed | : | See Section 11 for more detailed information on health effects and symptoms.  |

### Section: 5. FIRE-FIGHTING MEASURES

- |   |   |  |
|---|---|--|
| Suitable extinguishing media                  | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| Unsuitable extinguishing media                | : | None known.  |
| Specific hazards during firefighting          | : | Not flammable or combustible.  |
| Hazardous combustion products                 | : | Decomposition products may include the following materials: Carbon oxides  |
| Special protective equipment for firefighters | : | Use personal protective equipment.   |
| Specific extinguishing methods                | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes. |

### Section: 6. ACCIDENTAL RELEASE MEASURES

- |   |   |   |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. |
|---|---|---|

## SAFETY DATA SHEET

### NALSPERSE™ 73550

Refer to protective measures listed in sections 7 and 8.

- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Buna-N, HDPE (high density polyethylene), Polypropylene, Polyethylene, Stainless Steel 304, Fluoroelastomer, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Neoprene, Mild steel, Epoxy phenolic resin

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

## SAFETY DATA SHEET

### NALSPERSE™ 73550

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: clear
Odour	: Mild
Flash point	: > 93.3 °C
pH	: 8 - 10, Concentration: 50.00 g/l, (20 °C)
Odour Threshold	: no data available
Melting point/freezing point	: POUR POINT: -5 °C
Initial boiling point and boiling range	: > 100 °C, (760 mm Hg)
Evaporation rate	: not determined
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: < 0.1 hPa, (20 °C),
Relative vapour density	: no data available
Relative density	: 1.090 - 1.130, (25 °C),
Density	: 1.1 g/cm <sup>3</sup> , 9.2 lb/gal
Water solubility	: dispersible
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: > 300 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: 210 mPa.s (40 °C)
Viscosity, kinematic	: 190 mm <sup>2</sup> /s (40 °C)
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous	: No dangerous reaction known under conditions of normal use.

## SAFETY DATA SHEET

**NALSPERSE™ 73550**

reactions

Conditions to avoid : None known.

Incompatible materials : None known.

Hazardous decomposition products : In case of fire, hazardous decomposition products may be produced such as:  
Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : no data available

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

## SAFETY DATA SHEET

### NALSPERSE™ 73550

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

#### Components

Acute oral toxicity : Nonionic Surfactant  
LD50 rat: > 5,000 mg/kg  
Nonionic Alkyl Polyglycoside  
LD50 rat: > 5,000 mg/kg

#### Components

Acute dermal toxicity : Nonionic Surfactant  
LD50 rabbit: > 2,000 mg/kg

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Harmful to aquatic life.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 19 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 Inland Silverside: 19 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 Leuciscus idus (Golden orfe): 30 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 Pimephales promelas (fathead minnow): 21.35 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC Oncorhynchus mykiss (rainbow trout): 15 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC Inland Silverside: 15 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC Leuciscus idus (Golden orfe): 10 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 76 mg/l  
Exposure time: 48 hrs

## SAFETY DATA SHEET

**NALSPERSE™ 73550**

Test substance: Product

LC50 Mysid Shrimp (*Mysidopsis bahia*): 5.9 mg/l

Exposure time: 96 hrs

Test substance: Product

LC50 *Ceriodaphnia dubia*: 28.3 mg/l

Exposure time: 48 hrs

Test substance: Product

EC50 *Daphnia magna* (Water flea): 76 mg/l

Exposure time: 48 hrs

Test substance: Product

EC50 Mysid Shrimp (*Mysidopsis bahia*): 5.4 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC *Daphnia magna* (Water flea): 25 mg/l

Exposure time: 48 hrs

Test substance: Product

Toxicity to daphnia and other  
aquatic invertebrates  
(Chronic toxicity)

: LOEC: 40 mg/l

End point: Reproduction

Exposure time: 7 Days

Species: *Ceriodaphnia dubia*

Test substance: Product

EC25 / IC25: 24.2 mg/l

End point: Reproduction

Exposure time: 7 Days

Species: *Ceriodaphnia dubia*

Test substance: Product

NOEC: 20 mg/l

End point: Reproduction

Exposure time: 7 Days

Species: *Ceriodaphnia dubia*

Test substance: Product

### Components

Toxicity to algae

: Nonionic Surfactant

EC50 : 18 mg/l

Exposure time: 72 h

Nonionic Alkyl Polyglycoside

EC50 *Desmodesmus subspicatus* (green algae): 12.5 mg/l

Exposure time: 72 h

### Components

Toxicity to fish (Chronic  
toxicity)

: Nonionic Alkyl Polyglycoside

NOEC: 1.8 mg/l

Exposure time: 28 d

Species: *Danio rerio* (zebra fish)

## SAFETY DATA SHEET

### NALSPERSE™ 73550

#### Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC) : 250,000 mg/l

Chemical Oxygen Demand (COD): 850,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

400,000 mg/l

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 10 - 30%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

## SAFETY DATA SHEET

**NALSPERSE™ 73550**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

## Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).



## SAFETY DATA SHEET

### NALSPERSE™ 73550

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

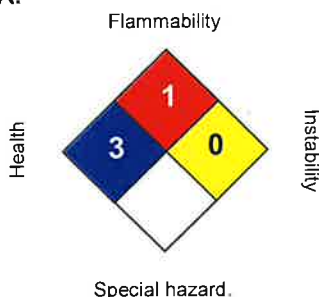
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 07/30/2024  
Version Number : 1.7  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**NexGuard® 22352**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NexGuard® 22352

Other means of identification : Not applicable.

Recommended use : BOILER WATER MULTIFUNCTIONAL TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 04/09/2024

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Corrosive to metals : Category 1  
Skin corrosion : Category 1  
Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May be corrosive to metals.  
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Keep only in original container. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.  
**Disposal:**

# SAFETY DATA SHEET

**NexGuard® 22352**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

## Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Potassium Hydroxide	1310-58-3	1 - 5
Diethylethanolamine	100-37-8	1 - 5

## Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

## Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides

Special protective equipment : Use personal protective equipment.

## SAFETY DATA SHEET

### NexGuard® 22352

for firefighters

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Protect product from freezing.

Suitable material : Keep in properly labelled containers.

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Product is corrosive to aluminum. Aluminum should not be used for feed, storage, or transportation systems.

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Potassium Hydroxide	1310-58-3	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
Diethylethanolamine	100-37-8	TWA	2 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below

## SAFETY DATA SHEET

**NexGuard® 22352**

occupational exposure standards.

### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield
- Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : orange
- Odour : Slight
- Flash point : > 93.3 °C, Method: ASTM D 93, Pensky-Martens closed cup, does not flash
- pH : 12.6,(100 %), (25 °C), Method: ASTM E 70
- Odour Threshold : no data available
- Melting point/freezing point : Freezing Point: -10 °C, ASTM D-1177
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : Not applicable.
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available
- Relative vapour density : no data available

## SAFETY DATA SHEET

### NexGuard® 22352

Relative density	: 1.14, (25 °C), ASTM D-1298
Density	: 9.5 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: 3 mm <sup>2</sup> /s (20 °C)
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: Strong acids
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

## SAFETY DATA SHEET

**NexGuard® 22352**

Eye contact : Redness, Pain, Corrosion  
Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough

### Toxicity

#### Product

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

## Section: 12. ECOLOGICAL INFORMATION

### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

### Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,684 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC Pimephales promelas (fathead minnow): 2,500 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 Oncorhynchus mykiss (rainbow trout): 3,540 mg/l  
Exposure time: 96 hrs  
Test substance: Product

## SAFETY DATA SHEET

**NexGuard® 22352**

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna: 2,410 mg/l  
Exposure time: 48 hrs  
Test substance: Product

EC50 Daphnia magna: 1,830 mg/l  
Exposure time: 48 hrs  
Test substance: Product

### Components

Toxicity to algae : Diethylethanolamine  
EC50 : 44 mg/l  
Exposure time: 72 h

### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations.



## SAFETY DATA SHEET

**NexGuard® 22352**

Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

#### Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : POTASSIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 34,960 lbs  
RQ Component : Potassium Hydroxide

#### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : POTASSIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 34,960 lbs  
RQ Component : Potassium Hydroxide

#### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : POTASSIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

## SAFETY DATA SHEET

**NexGuard® 22352**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Potassium Hydroxide	1310-58-3	1000	34965

### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

#### **United States TSCA Inventory**

Substance(s) not listed on TSCA inventory

#### **Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)**

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### **Canadian Domestic Substances List (DSL)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### **Japan. ENCS - Existing and New Chemical Substances Inventory**

This product contains substance(s) which are not in compliance with the Law Regulating the Manufacture and Importation Of Chemical Substances and are not listed on the Existing and New Chemical Substances list (ENCS).

#### **Korea. Korean Existing Chemicals Inventory (KECI)**

On the Korea Existing Chemicals Inventory.

#### **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### **China Inventory of Existing Chemical Substances**

This product contains substance(s) which are not in compliance with the Provisions on the Environmental Administration of New Chemical Substances and may require additional review.

#### **Taiwan Chemical Substance Inventory**

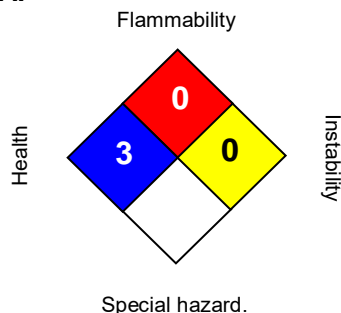
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### **Section: 16. OTHER INFORMATION**

## SAFETY DATA SHEET

NexGuard® 22352

### NFPA:



### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 04/09/2024  
Version Number : 2.1  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### SUR-GARD™ 1700

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SUR-GARD™ 1700

Other means of identification : Not applicable.

Recommended use : OXYGEN SCAVENGER

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC


Issuing date : 11/21/2024

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Skin irritation : Category 2  
Eye irritation : Category 2A

##### GHS Label element

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Causes skin irritation.  
Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear protective gloves/ eye protection/ face protection.  
**Response:**  
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

## SAFETY DATA SHEET

### SUR-GARD™ 1700

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Diethylethanolamine	100-37-8	5 - 10

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

## SAFETY DATA SHEET

### SUR-GARD™ 1700

emergency procedures

- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Storage temperature : 0 °C to 65 °C
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Stainless Steel 316L, Brass, CPVC (rigid), HDPE (high density polyethylene), LLDPE, Nylon 11, Plexiglass, Polypropylene, Teflon (PTFE), PVC, UHMWPE, EPDM, Kalrez, Perfluoroelastomer, Viton, Fluoroelastomer, Buna-N
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Mild steel, Neoprene

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Diethylethanolamine	100-37-8	TWA	2 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z1

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

- Eye protection : Safety glasses with side-shields
- Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.  
Nitrile rubber  
butyl-rubber

## SAFETY DATA SHEET

### SUR-GARD™ 1700

Viton

Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

- Skin protection : Wear suitable protective clothing.
- Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.  
Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Organic vapor cartridge.  
In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : brown
- Odour : mild
- Flash point : does not flash
- pH : 8.8 - 9.2, (100 %), (25 °C), Method: ASTM E 70
- Odour Threshold : no data available
- Melting point/freezing point : -3 °C, ASTM D-1177
- Initial boiling point and boiling range : 100 °C
- Evaporation rate : 1.5, (BuAc = 1)
- Flammability (solid, gas) : Not applicable.
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : 24 mm Hg, (25 °C),
- Relative vapour density : no data available
- Relative density : 1.04, (25 °C), ASTM D-1298
- Density : 1.04 g/cm<sup>3</sup> , 8.7 lb/gal

## SAFETY DATA SHEET

### SUR-GARD™ 1700

Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 4 mPa.s (25 °C), Method: ASTM D 2983
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures. Extremes of temperature
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx)

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Causes serious eye irritation.
Skin	: Causes skin irritation.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Pain, Irritation
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## SAFETY DATA SHEET

### SUR-GARD™ 1700

Skin contact : Redness, Irritation

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 62.31 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Lepomis macrochirus (Bluegill sunfish): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 1,000 mg/l  
Exposure time: 96 hrs

## SAFETY DATA SHEET

### SUR-GARD™ 1700

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): > 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Daphnia magna (Water flea): 600 mg/l  
Exposure time: 48 hrs  
Test substance: Product

#### Components

Toxicity to algae : Diethylethanolamine  
EC50 Desmodesmus subspicatus (green algae): 62.3 mg/l  
Exposure time: 72 h

#### Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be readily biodegradable.

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of

## SAFETY DATA SHEET

### SUR-GARD™ 1700

contents/container in accordance with local regulations.  
Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

##### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

##### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Skin corrosion or irritation  
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SAFETY DATA SHEET

### SUR-GARD™ 1700

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

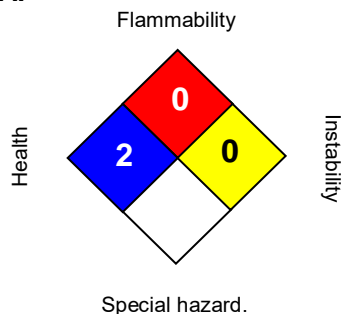
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

##### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (EC SI).

#### Section: 16. OTHER INFORMATION

##### NFPA:



##### HMIS III:

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 11/21/2024  
Version Number : 1.6  
Prepared By : Regulatory Affairs

## **SAFETY DATA SHEET**

### **SUR-GARD™ 1700**

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### TRASAR™ TRAC104

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TRASAR™ TRAC104

Other means of identification : Not applicable.

Recommended use : CLOSED LOOP TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC


Issuing date : 06/28/2023

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Reproductive toxicity : Category 2

##### GHS Label element

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**  
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF exposed or concerned: Get medical advice/attention.  
**Storage:**  
Store locked up.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Sodium Metaborate	7775-19-1	0.1 - 1
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## SAFETY DATA SHEET

### TRASAR™ TRAC104

Sodium Tolyltriazole

64665-57-2

0.1 - 1

#### Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are

## SAFETY DATA SHEET

### TRASAR™ TRAC104

- emergency procedures : facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Metaborate	7775-19-1	TWA (Inhalable particulate matter)	2 mg/m <sup>3</sup> (Borate)	ACGIH
		STEL (Inhalable particulate matter)	6 mg/m <sup>3</sup> (Borate)	ACGIH

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield
- Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing



## SAFETY DATA SHEET

### TRASAR™ TRAC104

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: yellow
Odour	: odourless
Flash point	: does not flash
pH	: 9.5 - 12.5,(100 %)
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.15, (25.5 °C),
Density	: 9.5 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

## SAFETY DATA SHEET

**TRASAR™ TRAC104**

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Suspected of damaging fertility or the unborn child.

#### Experience with human exposure

Eye contact	: No symptoms known or expected. Redness, Pain, Corrosion
Skin contact	: No symptoms known or expected. Redness, Pain, Corrosion
Ingestion	: No symptoms known or expected. Corrosion, Abdominal pain
Inhalation	: No symptoms known or expected. Respiratory irritation, Cough

## SAFETY DATA SHEET

### TRASAR™ TRAC104

#### Toxicity

##### Product

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

##### **Components**

Acute inhalation toxicity	: Sodium Tolyltriazole LC50 Rat: > 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist
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### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects	: This product has no known ecotoxicological effects.
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##### **Product**

Toxicity to fish	: LC50 Oncorhynchus mykiss (rainbow trout): 3,674 mg/l Exposure time: 96 hrs Test substance: Product Test Type: Static  LC50 Pimephales promelas (fathead minnow): > 5,000 mg/l Exposure time: 96 hrs Test substance: Product Test Type: Static  NOEC Oncorhynchus mykiss (rainbow trout): 2,500 mg/l Exposure time: 96 hrs Test substance: Product Test Type: Static  NOEC Pimephales promelas (fathead minnow): 5,000 mg/l
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## SAFETY DATA SHEET

### TRASAR™ TRAC104

Exposure time: 96 hrs  
Test substance: Product  
Test Type: Static

Toxicity to daphnia and other aquatic invertebrates : LC50 Ceriodaphnia dubia: > 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

NOEC Ceriodaphnia dubia: 5,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

#### Components

Toxicity to algae : Sodium Metaborate  
EC50 Aquatic Plant: 54 mg/l  
Exposure time: 72 h

Sodium Tolytriazole  
EC50 Aquatic Plant: 53 mg/l  
Exposure time: 72 h

#### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

## SAFETY DATA SHEET

### TRASAR™ TRAC104

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

- Hazardous Waste: : D002
- Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations  
Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

- Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

- Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

- Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

- TSCA list : No substances are subject to a Significant New Use Rule.
- No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards : Reproductive toxicity

- SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

## SAFETY DATA SHEET

### TRASAR™ TRAC104

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### **California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

##### **United States TSCA Inventory**

On or in compliance with the active portion of the TSCA inventory

##### **Canadian Domestic Substances List (DSL)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### **Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)**

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

##### **China Inventory of Existing Chemical Substances**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### **Japan. ENCS - Existing and New Chemical Substances Inventory**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### **Korea. Korean Existing Chemicals Inventory (KECI)**

On the Korea Existing Chemicals Inventory.

##### **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### **Taiwan Chemical Substance Inventory**

not determined

##### **New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand**

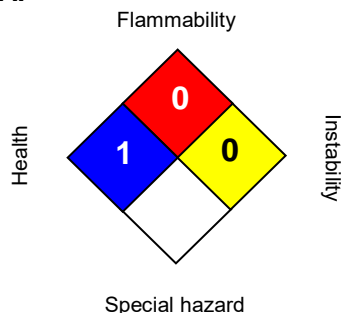
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### **Section: 16. OTHER INFORMATION**

## SAFETY DATA SHEET

**TRASAR™ TRAC104**

### NFPA:



### HMIS III:

HEALTH	0*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 06/28/2023  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

### TRASAR™ TRAC101

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TRASAR™ TRAC101

Other means of identification : Not applicable.

Recommended use : CLOSED LOOP TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 11/20/2024

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1

Serious eye damage : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure (Oral) : Category 1 (Blood)

##### GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Harmful if swallowed.  
Causes severe skin burns and eye damage.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs (Blood) if swallowed.

Precautionary Statements : **Prevention:**  
Do not breathe mist or vapours. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep



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## TRASAR™ TRAC101

comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. IF exposed: Call a POISON CENTER or doctor/ physician.

### Disposal:

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

## Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Nitrite	7632-00-0	10 - 30
Substituted Triazole	Proprietary	1 - 5

## Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

## Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during : If product is allowed to dry, the sodium nitrite is an oxidizing agent and can

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- firefighting : initiate the combustion of other materials.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

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Eye protection	: Safety goggles Face-shield
Hand protection	: Wear the following personal protective equipment: Nitrile rubber butyl-rubber Neoprene gloves Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	: Use local exhaust ventilation or other engineering controls as necessary to control airborne mist and vapor. Where concentrations in air may exceed the limits given in this section or when significant mists, vapors, aerosols are generated, an approved air purifying respirator equipped with suitable filter cartridges is recommended. Combined particulates and inorganic gas/vapour type If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: light yellow
Odour	: odourless
Flash point	: does not flash
pH	: 12.0 - 14.0
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available

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Relative density	: 1.25 - 1.29, (15.6 °C),
Density	: 10.42 - 10.76 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Amines Strong acids Reducing agents
Hazardous decomposition products	: In the event of fire, see Section 5

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Suspected of damaging fertility or the unborn child. May cause damage to organs.

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#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity	: Acute toxicity estimate: 714.86 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: 102 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects	: Harmful to aquatic life.
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#### Product

Toxicity to fish	: LC50 Pimephales promelas (fathead minnow): 108.2 mg/l Exposure time: 96 hrs Test substance: Product  LC50 Inland Silverside: 3,048 mg/l Exposure time: 96 hrs Test substance: Product  NOEC Pimephales promelas (fathead minnow): 62.5 mg/l
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Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 1,250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Ceriodaphnia dubia: 79.1 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 341.9 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Ceriodaphnia dubia: 50 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 125 mg/l  
Exposure time: 96 hrs  
Test substance: Product

#### Components

Toxicity to algae : Substituted Triazole  
EC50 Aquatic Plant: 53 mg/l  
Exposure time: 72 h

#### Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Substituted Triazole  
NOEC: 0.4 mg/l  
Exposure time: 21 d  
Species: Daphnia galeata (water flea)

#### Persistence and degradability

Biodegradability : Result: Biodegradable

The organic portion of this preparation is expected to be readily biodegradable.

Total Organic Carbon (TOC) : 29,600 mg/l

Chemical Oxygen Demand (COD): 136,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	340 mg/l	Product

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is

## SAFETY DATA SHEET

### TRASAR™ TRAC101

intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

This product is not classified as a DOT hazardous material if the RQ quantity is not met or exceeded in the specific shipping container.

#### Land transport (DOT)

Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name(s)	: Sodium Nitrite
UN/ID No.	: UN 3082
Transport hazard class(es)	: 9
Packing group	: III
Reportable Quantity (per package)	: 406 lbs

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RQ Component : Sodium Nitrite

#### Air transport (IATA)

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Technical name(s) : Sodium Nitrite  
UN/ID No. : UN 3082  
Transport hazard class(es) : 9  
Packing group : III  
Reportable Quantity (per package) : 406 lbs  
RQ Component : Sodium Nitrite

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

**TSCA list** : The following substance(s) is/are subject to a Significant New Use Rule: Sodium Nitrite

The following substance(s) is/are subject to TSCA 12(b) export notification requirements: Sodium Nitrite

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Nitrite	7632-00-0	100	406

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Sodium Nitrite	7632-00-0	20 - 30 %
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#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :



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### TRASAR™ TRAC101

#### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

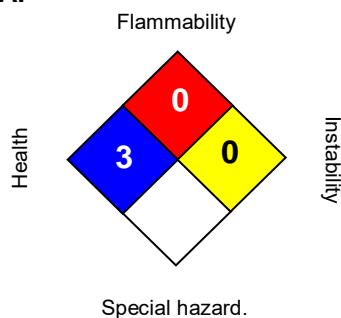
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 11/20/2024  
Version Number : 2.0  
Prepared By : Regulatory Affairs

## SAFETY DATA SHEET

### TRASAR™ TRAC101

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.ecolab.com/sds](http://www.ecolab.com/sds) and request access.

## SAFETY DATA SHEET

**Tri-ACT™ 1820**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Tri-ACT™ 1820

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 01/27/2022

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Reproductive toxicity : Category 2

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Flammable liquid and vapour.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.  
Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several

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## Tri-ACT™ 1820

minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

### Storage:

Store in a well-ventilated place.

### Disposal:

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

## Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Cyclohexylamine	108-91-8	10 - 30
Morpholine	110-91-8	10 - 30
Diethylethanolamine	100-37-8	5 - 10

## Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

## Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Foam  
Carbon dioxide  
Dry powder  
Other extinguishing agent suitable for Class B fires  
For large fires, use water spray or fog, thoroughly drenching the burning material.

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### Tri-ACT™ 1820

Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Fire Hazard Keep away from heat and sources of ignition. Flash back possible over considerable distance. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Hazardous combustion products	: Carbon oxides nitrogen oxides (NOx)
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling	: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
Conditions for safe storage	: Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Suitable material	: The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
Unsuitable material	: not determined

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**Tri-ACT™ 1820**

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Cyclohexylamine	108-91-8	TWA	10 ppm	ACGIH
		TWA	10 ppm 40 mg/m3	NIOSH REL
Morpholine	110-91-8	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m3	NIOSH REL
		STEL	30 ppm 105 mg/m3	NIOSH REL
		TWA	20 ppm 70 mg/m3	OSHA Z1
Diethylethanolamine	100-37-8	TWA	2 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.  
butyl-rubber  
Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.  
Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Multi-purpose combination filter  
In event of emergency or planned entry into unknown concentrations, a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.

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### Tri-ACT™ 1820

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: colourless
Odour	: amine-like
Flash point	: 55 °C, Method: ASTM D 93, Pensky-Martens closed cup
pH	: 12.0 - 13.0,(100 %), Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -3 °C, ASTM D-1177
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 6 mm Hg, (20 °C), ASTM D 2879-86,
Relative vapour density	: no data available
Relative density	: 0.98 - 0.99, (25 °C), ASTM D-1298
Density	: 0.98 - 0.99 g/cm <sup>3</sup> , 8.1 - 8.2 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 3 - 7 mPa.s (22 °C) 5 mPa.s (25 °C), Method: ASTM D 2983
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

## SAFETY DATA SHEET

### Tri-ACT™ 1820

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx)

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Toxic in contact with skin. Causes severe skin burns.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Suspected of damaging fertility or the unborn child.

#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity	: LD50 rat: 779 mg/kg Test substance: Similar Product
Acute inhalation toxicity	: Acute toxicity estimate: 37.89 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	: LD50 rabbit: 2,055 mg/kg Test substance: Similar Product



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### Tri-ACT™ 1820

Skin corrosion/irritation	: Result: 8.0 Method: Draize Test Test substance: Similar Product
Serious eye damage/eye irritation	: Result: 110.0 Method: Draize Test Test substance: Similar Product
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: Prolonged exposure to cyclohexylamine in the diet has produced reproductive effects in rats. The relevance to humans is unknown.
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Toxicity

Environmental Effects : Harmful to aquatic life.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 130 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Cyprinodon variegatus (sheepshead minnow): 454 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Fish: 650 mg/l  
Test substance: Product

LC50 Inland Silverside: 500.0 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 32 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Cyprinodon variegatus (sheepshead minnow): 250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC Inland Silverside: 250 mg/l  
Exposure time: 96 hrs

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Test substance: Product

LC50 Fathead Minnow: 465 mg/l

Exposure time: 48 h

Test substance: Product

LC50 Fathead Minnow: 399 mg/l

Exposure time: 96 h

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 190 mg/l  
Exposure time: 48 hrs

Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 131 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Daphnia magna (Water flea): 100 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 40 mg/l

Exposure time: 96 hrs

Test substance: Product

LC50 Ceriodaphnia dubia: 115 mg/l

Exposure time: 48 h

Test substance: Product

NOEC Ceriodaphnia dubia: 72 mg/l

Exposure time: 48 h

Test substance: Product

Toxicity to algae : LC50 Algae: 5,000 mg/l  
Test substance: Product

Toxicity to bacteria : LC50 Pseudomonas putida: 7,500 mg/l  
Test substance: Product

### Persistence and degradability

The organic portion of this preparation is expected to be readily biodegradable.

Chemical Oxygen Demand (COD): 563,000 mg/l

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

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Air	: <5%
Water	: 30 - 50%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Disposal methods	: Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name	: CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Technical name(s)	: Cyclohexylamine, Morpholine
UN/ID No.	: UN 2920
Transport hazard class(es)	: 8, 3
Packing group	: II

#### Air transport (IATA)

Proper shipping name	: CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Technical name(s)	: Cyclohexylamine, Morpholine
UN/ID No.	: UN 2920
Transport hazard class(es)	: 8, 3
Packing group	: II

#### Sea transport (IMDG/IMO)

## SAFETY DATA SHEET

### Tri-ACT™ 1820

Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Technical name(s) : Cyclohexylamine, Morpholine  
UN/ID No. : UN 2920  
Transport hazard class(es) : 8, 3  
Packing group : II

#### Section: 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.  
No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Cyclohexylamine	108-91-8	10000	45682

**SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Reproductive toxicity

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
Cyclohexylamine 108-91-8

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

## SAFETY DATA SHEET

### Tri-ACT™ 1820

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

On the inventory, or in compliance with the inventory.

#### Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

#### Korea. Korean Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory.

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

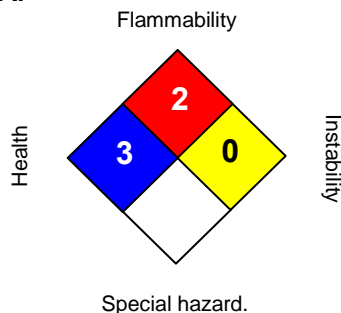
On the inventory, or in compliance with the inventory.

#### China Inventory of Existing Chemical Substances

On the inventory, or in compliance with the inventory.

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3*
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 01/27/2022  
Version Number : 2.0  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.



# SAFETY DATA SHEET

## BIOPLUS\* BA3900

### 1. Identification

**Product identifier** BIOPLUS BA3900  
**Other means of identification** None.  
**Recommended use** Bio-augmentation aid  
**Recommended restrictions** None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**OSHA defined hazards** Not classified.

#### Label elements

**Hazard symbol** None.  
**Signal word** None.  
**Hazard statement** The mixture does not meet the criteria for classification.  
**Precautionary statement**  
**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
HUMIC FOLIC ACID	NOT ASSIGNED	2.5 - 10

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist. Remove to fresh air. Get medical attention if cough or other symptoms develop.

<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Airtight chemical goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.

<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
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## 9. Physical and chemical properties

### Appearance

Color	Tan
Physical state	Powder
Odor	Mild
Odor threshold	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 213 °F (> 101 °C) P-M(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not available.

### Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 1 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 0.1 (Air = 1)
Relative density	Not available.
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	< 5 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0 (Estimated)

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Elemental Oxides

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.



<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Direct contact with eyes may cause temporary irritation.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	This product is not expected to cause respiratory sensitization.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	Not listed.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not regulated.
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	Not listed.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Further information</b>	This product has no known adverse effect on human health.

## 12. Ecological information

<b>Ecotoxicity</b>	No ecotoxicity data noted for the ingredient(s).
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	Not available.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

## 15. Regulatory information

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**US state regulations**

**US - Massachusetts RTK - Substance List**

Not regulated.

**US - Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US - Rhode Island RTK**

Not regulated.

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

## 16. Other information, including date of preparation or last revision

**Issue date** Jan-12-2015

**Revision date** Feb-07-2017

**Version #** 2.0

**List of abbreviations** CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon

**References:** No data available

**Disclaimer** Not available.

**Revision information** Composition / Information on Ingredients: Disclosure Overrides  
Composition/information on ingredients: Composition comments  
First-aid measures: Inhalation  
Exposure controls/personal protection: Appropriate engineering controls  
Exposure controls/personal protection: Hand protection  
Exposure controls/personal protection: Respiratory protection  
Physical & Chemical Properties: Multiple Properties  
Stability and reactivity: Hazardous decomposition products  
Toxicological information: Acute toxicity  
Toxicological information: Aspiration hazard  
Toxicological information: Respiratory sensitization  
Other information, including date of preparation or last revision: Prepared by  
HazReg Data: International Inventories

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## CORTROL\* OS7785

### 1. Identification

Product identifier	CORTROL OS7785
Other means of identification	Not available.
Recommended use	Water based dissolved oxygen scavenger/ metal passivator
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word Danger

Hazard statement May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing genetic defects. Suspected of causing cancer.

#### Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist or vapor. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If on skin: Wash with plenty of water/. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.

<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/container to approved local facility.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Hydroquinone		123-31-9	2.5 - 10

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Dermatitis. Rash. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. May cause an allergic skin reaction.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. Avoid breathing mist or vapor. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store containers closed when not in use. Store in accordance with local/regional/national/international regulation. Minimise exposure to light.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Hydroquinone (CAS 123-31-9)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Hydroquinone (CAS 123-31-9)	TWA	1 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hydroquinone (CAS 123-31-9)	Ceiling	2 mg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Splash proof chemical goggles. Face shield.

#### Skin protection

##### Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

##### Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

**Color** Brown to light yellow

**Physical state** Liquid

**Odor** Slight

**Odor threshold** Not available.

**pH (concentrated product)** 7.5

**pH in aqueous solution** 7.6 (5% SOL.)

**Melting point/freezing point** 32 °F (0 °C)

**Initial boiling point and boiling range** 212 °F (100 °C)

**Flash point** > 201 °F (> 94 °C) SETA(CC)

**Evaporation rate** < 1 (Ether = 1)

Flammability (solid, gas) Not available.

**Upper/lower flammability or explosive limits**

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 18 mm Hg

Vapor pressure temp. 70 °F (21 °C)

Vapor density < 1 (Air = 1)

Relative density 1

Relative density temperature 70 °F (21 °C)

**Solubility(ies)**

Solubility (water) 100 %

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 7 cps

Viscosity temperature 70 °F (21 °C)

**Other information**

Percent volatile 0 (Estimated)

Pour point 37 °F (3 °C)

Specific gravity 1

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** Hazardous polymerization does not occur.

**Conditions to avoid** Protect from freezing.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** Oxides of carbon evolved in fire.

## 11. Toxicological information

**Information on likely routes of exposure**

**Ingestion** May cause gastrointestinal irritation.

**Inhalation** Prolonged inhalation may be harmful. May cause irritation to the respiratory system.

**Skin contact** May cause an allergic skin reaction. Prolonged or repeated contact may cause irritation.

**Eye contact** Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics** Dermatitis. Rash. May cause respiratory irritation. May cause an allergic skin reaction. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Information on toxicological effects**

**Acute toxicity** May cause an allergic skin reaction. May cause respiratory irritation.

Product	Species	Test Results
CORTROL OS7785 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Product	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Components	Species	Test Results
Hydroquinone (CAS 123-31-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	367 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
Respiratory sensitization	Not available.
Skin sensitization	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>ACGIH Carcinogens</b>	
Hydroquinone (CAS 123-31-9)	A3 Confirmed animal carcinogen with unknown relevance to humans.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Hydroquinone (CAS 123-31-9)	3 Not classifiable as to carcinogenicity to humans.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

Ecotoxicity		The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Product		Species	Test Results
CORTROL OS7785 (CAS Mixture)			
	5% Mortality	Mysid Shrimp	3.7 mg/L, Static Renewal Bioassay, 48 hour
	LC50	Fathead Minnow	4.2 mg/L, Static Renewal Bioassay, 96 hour
		Mysid Shrimp	15 mg/L, Static Renewal Bioassay, 48 hour
		Sheepshead Minnow	5.5 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Fathead Minnow	1.5 mg/L, Static Renewal Bioassay, 96 hour
		Sheepshead Minnow	3.7 mg/L, Static Renewal Bioassay, 96 hour
Crustacea	LC50	Daphnia magna	4.2 mg/L, Static Renewal Bioassay, 48 hour
	NOEL	Daphnia magna	1.5 mg/L, Static Renewal Bioassay, 48 hour
Other	LC50	Rainbow Trout	2.4 mg/L, Static Acute Bioassay, 96 hour

\* Estimates for product may be based on additional component data not shown.

<b>Bioaccumulative potential</b>	No data available.
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<b>Partition coefficient n-octanol / water (log Kow)</b>	
Hydroquinone	0.6
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
<b>Environmental fate</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
- COD (mgO2/g)	83 (calculated data)
- BOD 5 (mgO2/g)	43 (calculated data)
- BOD 28 (mgO2/g)	43 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	25 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	66 (calculated data)
- TOC (mg C/g)	26 (calculated data)
<b>13. Disposal considerations</b>	
<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Hydroquinone RQ = 2500 LBS), RQ
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary risk	-
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	171

Some containers may be DOT exempt, please check BOL for exact container classification.

### IATA

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Hydroquinone)
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	171
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Hydroquinone), RQ, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary risk	-
<b>Packing group</b>	III

Environmental hazards

Marine pollutant

EmS

Special precautions for user

Yes

Not available.

Read safety instructions, SDS and emergency procedures before handling.

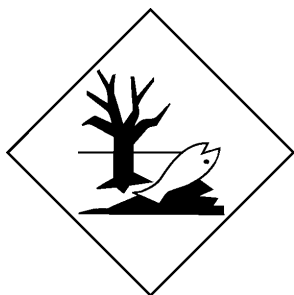
DOT



IATA; IMDG



Marine pollutant



## 15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Hydroquinone (CAS 123-31-9)

Listed.

**SARA 304 Emergency release notification**

Hydroquinone (CAS 123-31-9)

100 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Hydroquinone	123-31-9	100		500 lbs	10000 lbs
<b>SARA 311/312 Hazardous chemical</b>					
No					
<b>SARA 313 (TRI reporting)</b>					
Chemical name	CAS number	% by wt.			
Hydroquinone	123-31-9	2.5 - 10			

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Hydroquinone (CAS 123-31-9)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**

Not regulated.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Food and drug administration**

All ingredients in this product are authorized in 21 CFR176.170 for use in boilers where the steam will be used for manufacturing paper or paperboard.

**US state regulations**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - Massachusetts RTK - Substance List**

Hydroquinone (CAS 123-31-9)

**US - Pennsylvania RTK - Hazardous Substances**

Hydroquinone (CAS 123-31-9)

**US - Rhode Island RTK**

Hydroquinone (CAS 123-31-9)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Hydroquinone (CAS 123-31-9) 500 LBS

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision**

Issue date	Dec-05-2014
Revision date	Dec-05-2014
Version #	1.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
TLV: Threshold Limit Value  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
NFPA: National Fire Protection Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:**

No data available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision Information**

Product and Company Identification: Product and Company Identification  
Composition / Information on Ingredients: Disclosure Overrides  
Physical & Chemical Properties: Multiple Properties  
Toxicological Information: Toxicological Data  
Transport Information: Material Transportation Information  
Regulatory Information: Risk Phrases - Labeling  
HazReg Data: Europe - EU  
GHS: Classification

**Prepared by**

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



## SAFETY DATA SHEET

### GENGARD\* GN8020

#### 1. Identification

Product identifier	GENGARD GN8020
Other means of identification	None.
Recommended use	Corrosion inhibitor
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

#### 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1A
OSHA defined hazards	Not classified.	

#### Label elements



Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
Precautionary statement	
Prevention	Wear eye/face protection. Avoid breathing mist or vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.
Response	If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If on skin: Wash with plenty of water.
Storage	Store in a well-ventilated place. Keep container tightly closed.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Maleic acid	110-16-7	0.1 - 1
CARBOXYLIC ACID POLYMER	TSRN 125438 - 5052P	

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Wash contaminated clothing before reuse. Get medical attention immediately.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Keep eyelids apart. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Skin contact may cause itching and/or redness. May cause allergic skin reaction. May cause redness and pain. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray. Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Avoid breathing mist or vapor. Wear appropriate protective equipment and clothing during clean-up. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with spilled material. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>Small Spills: Absorb in vermiculite, dry sand or earth and place into containers. Place in waste disposal container. Wet area may be slippery. Spread sand/grit. Following product recovery, flush area with water. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Large Spills: Cover with plastic sheet to prevent spreading. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Ventilate the area.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Observe good industrial hygiene practices. Do not get in eyes, on skin, on clothing. Do not breathe mist or vapor. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in cool, well ventilated area. Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Avoid high temperatures. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Splash proof chemical goggles. Face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
<b>Other</b>	Wear suitable protective clothing. Wash off after each use. Replace as necessary.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Color</b>	Amber to brown
<b>Physical state</b>	Liquid
<b>Odor</b>	Slight sweet
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	2.6
<b>pH in aqueous solution</b>	3 (5% SOL.)
<b>Melting point/freezing point</b>	27 °F (-3 °C)
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	< 1 (Water = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	< 1 (Air = 1)
<b>Relative density</b>	1.17

Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	17 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0 (Estimated)
Pour point	32 °F (0 °C)
Specific gravity	1.166

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon, nitrogen, and sulphur evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Mists/aerosols may cause irritation to upper respiratory tract.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms on skin may develop redness and itching.

### Information on toxicological effects

Acute toxicity	None known.
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Product	Species	Test Results
GENGARD GN8020 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Components	Species	Test Results
CARBOXYLIC ACID POLYMER (CAS TSN 125438 - 5052P)		
Acute		
Oral		
LD50	Rat	4563 mg/kg
Maleic acid (CAS 110-16-7)		
Acute		
Dermal		
LD50	Rabbit	1560 mg/kg



Components	Species	Test Results
<i>Inhalation</i>		
LC50	Rat	> 2.88 mg/L, 4 Hour
<i>Oral</i>		
LD50	Rat	708 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	This product is not expected to cause respiratory sensitization.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not regulated.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.	
<b>Chronic effects</b>	No evidence of potential chronic effects.	

## 12. Ecological information

### Ecotoxicity

Product	Species		Test Results	
GENGARD GN8020 (CAS Mixture)				
Aquatic	LC50	Fathead Minnow	5814 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)	
		NOEL	Fathead Minnow	5000 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
	Crustacea	LC50	Daphnia magna	3628 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
		NOEL	Daphnia magna	1250 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
	Fish	LC50	Rainbow Trout	7071 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
		NOEL	Rainbow Trout	5000 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
	Bioaccumulative potential		Not available.	
	Partition coefficient n-octanol / water (log Kow)			
	Maleic acid		-0.48	
	Mobility in soil		Not available.	
Other adverse effects		Not available.		
Persistence and degradability				
- COD (mgO2/g)	464 (calculated data)			
- BOD 5 (mgO2/g)	30 (calculated data)			
- BOD 28 (mgO2/g)	71 (calculated data)			

- Closed Bottle Test (% Degradation in 28 days) 15 (calculated data)
- TOC (mg C/g) 142 (calculated data)

### 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
<b>Contaminated packaging</b>	Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

### 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

### 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Maleic acid (CAS 110-16-7) Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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#### SARA 302 Extremely hazardous substance

Not listed.

<b>SARA 311/312 Hazardous chemical</b>	Yes
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#### SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.
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#### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

<b>NSF Registered and/or meets</b>	Registration No. – 144523
<b>USDA (according to 1998</b>	Category Code(s):
<b>guidelines):</b>	G5 Cooling and retort water treatment products
	G7 Boiler, steam line treatment products – nonfood contact

#### US state regulations

##### US - Massachusetts RTK - Substance List

Maleic acid (CAS 110-16-7)

##### US - Pennsylvania RTK - Hazardous Substances

Maleic acid (CAS 110-16-7)

##### US - Rhode Island RTK

Maleic acid (CAS 110-16-7)

##### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

##### US. New Jersey Worker and Community Right-to-Know Act

Maleic acid (CAS 110-16-7)

##### US. Pennsylvania Worker and Community Right-to-Know Law

Maleic acid (CAS 110-16-7)

##### US. California Proposition 65

###### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

###### US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

###### US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

###### US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

## 16. Other information, including date of preparation or last revision

**Issue date** Sep-26-2014

**Revision date** Jan-04-2017

**Version #** 4.0

#### List of abbreviations

CAS: Chemical Abstract Service Registration Number  
NFPA: National Fire Protection Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
EC50: Effect Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
CEN: European Committee for Standardisation  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by**

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## GENGARD\* GN8300

### 1. Identification

Product identifier	GENGARD GN8300
Other means of identification	None.
Recommended use	Corrosion inhibitor
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

**Prevention** Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Phosphoric Acid	7664-38-2	60 - 80

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Call a physician or poison control center immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### 7. Handling and storage

<b>Precautions for safe handling</b>	Acidic. Corrosive to skin or eyes. Do not mix with alkaline material. Do not breathe mist or vapor. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not get in eyes, on skin, or on clothing. Use care in handling/storage.
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**Conditions for safe storage,  
including any incompatibilities**

Store locked up. Store in corrosive resistant container with a resistant inner liner. Contact with metals may release flammable hydrogen gas. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	PEL	1 mg/m <sup>3</sup>

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

**Color** Colorless to light yellow

**Physical state** Liquid

**Odor** Mild

**Odor threshold** Not available.

**pH (concentrated product)** < 1

**pH in aqueous solution** 1.2 (5% SOL.)

**Melting point/freezing point** < -30 °F (< -34 °C)

**Initial boiling point and boiling range** Not available.

**Flash point** Not applicable.

**Evaporation rate** < 1 (Ether = 1)

Flammability (solid, gas) Not applicable.

**Upper/lower flammability or explosive limits**

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 15 mm Hg

Vapor pressure temp. 70 °F (21 °C)

Vapor density > 1 (Air = 1)

Relative density 1.58

Relative density temperature 70 °F (21 °C)

**Solubility(ies)**

Solubility (water) 100 %

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 19 cps

Viscosity temperature 70 °F (21 °C)

**Other information**

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Percent volatile 0 (Estimated)

Pour point < -25 °F (< -32 °C)

Specific gravity 1.58

## 10. Stability and reactivity

Reactivity May be corrosive to metals.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Contact with incompatible materials. Contact with metals may release flammable hydrogen gas. Contact with strong bases may cause a violent reaction releasing heat. Avoid contact with strong oxidizers.

Incompatible materials Strong oxidizing agents. Metals.

Hazardous decomposition products Oxides of carbon and phosphorus evolved in fire.

## 11. Toxicological information

**Information on likely routes of exposure**

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Ingestion Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

**Information on toxicological effects**

Acute toxicity May cause respiratory irritation.



Product	Species	Test Results
GENGARD GN8300 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	3650 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	2040 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Phosphoric Acid (CAS 7664-38-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2740 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation** Causes serious eye damage.

**Respiratory or skin sensitization**

**Respiratory sensitization** This product is not expected to cause respiratory sensitization.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not available.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not available.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard. Aspiration of this product may cause the same corrosiveness/irritation impacts as if it were ingested.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity**

Product	Species	Test Results
GENGARD GN8300 (CAS Mixture)		
5% Mortality	Ceriodaphnia	500 mg/L, Static Screen, 48 hour, (pH adjusted)
85% Mortality	Ceriodaphnia	2500 mg/L, Static Screen, 48 hour, (pH adjusted)
LC50	Fathead Minnow	4200 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
NOEL	Fathead Minnow	2100 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
<b>Aquatic</b>		
Crustacea	LC50 Daphnia magna	3540 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

Product	Species	Test Results
	NOEL	Daphnia magna
		2100 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

\* Estimates for product may be based on additional component data not shown.

<b>Bioaccumulative potential</b>	No information available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	Not available.

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1805
<b>UN proper shipping name</b>	PHOSPHORIC ACID SOLUTION, RQ
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

#### IATA

<b>UN number</b>	UN1805
<b>UN proper shipping name</b>	PHOSPHORIC ACID SOLUTION
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	154
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

<b>UN number</b>	UN1805
<b>UN proper shipping name</b>	PHOSPHORIC ACID SOLUTION, RQ
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
Marine pollutant	No.
<b>EmS</b>	F-A,S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Phosphoric Acid (CAS 7664-38-2)

Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

#### SARA 311/312 Hazardous chemical

Yes

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

#### Safe Drinking Water Act (SDWA)

Not regulated.

#### FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Phosphoric Acid (CAS 7664-38-2)

High priority

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

<b>NSF Registered and/or meets</b>	Registration No. – 142961
<b>USDA (according to 1998 guidelines):</b>	Category Code(s): G5 Cooling and retort water treatment products G7 Boiler, steam line treatment products – nonfood contact

**US state regulations****US - Massachusetts RTK - Substance List**

Phosphoric Acid (CAS 7664-38-2)

**US - Pennsylvania RTK - Hazardous Substances**

Phosphoric Acid (CAS 7664-38-2)

**US - Rhode Island RTK**

Phosphoric Acid (CAS 7664-38-2)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Phosphoric Acid (CAS 7664-38-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Phosphoric Acid (CAS 7664-38-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Phosphoric Acid (CAS 7664-38-2)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision**

**Issue date** Oct-29-2014

**Revision date** Apr-06-2016

**Version #** 2.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
ACGIH: American Conference of Governmental Industrial Hygienists  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by**

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## INHIBITOR AZ8104

### 1. Identification

Product identifier	INHIBITOR AZ8104
Other means of identification	None.
Recommended use	Water-based corrosion inhibitor
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

**Prevention** Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material-damage.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Chlorotolyltriazole sodium salt	202420-04-0	10 - 20
DICHLOROTOLYLTRIAZOLE	NOT ASSIGNED	2.5 - 10
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	1 - 2.5
Sodium hydroxide	1310-73-2	1 - 2.5

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Alkaline. Do not mix with acidic material. Do not breathe mist or vapor. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not get in eyes, on skin, or on clothing.

### Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Store away from acids. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Store locked up. Keep only in the original container.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.

##### Other

Wear appropriate chemical resistant clothing.

#### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Color

Yellow to amber

#### Physical state

Liquid

### Odor

Slight

### Odor threshold

Not available.

### pH (concentrated product)

12.7

### pH in aqueous solution

11.6 (5% SOL.)

### Melting point/freezing point

12 °F (-11 °C)

### Initial boiling point and boiling range

210 °F (99 °C)



Flash point	Not applicable.
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.13
Relative density temperature	70 °F (21 °C)
<b>Solubility(ies)</b>	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	5 cps
Viscosity temperature	70 °F (21 °C)
<b>Other information</b>	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	0 (Estimated)
Pour point	17 °F (-8 °C)
Specific gravity	1.132

## 10. Stability and reactivity

Reactivity	May be corrosive to metals. May react violently with acidic materials.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Metals.
Hazardous decomposition products	Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
INHIBITOR AZ8104 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Components	Species	Test Results
Chlorotolyltriazole sodium salt (CAS 202420-04-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3100 mg/kg
DICHLOROTOLYLTRIAZOLE (CAS NOT ASSIGNED)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3100 mg/kg
Sodium 4(or 5)-methyl-1H-benzotriazolide (CAS 64665-57-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	735 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	This product is not expected to cause respiratory sensitization.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not regulated.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

### Ecotoxicity

Product		Species	Test Results
INHIBITOR AZ8104 (CAS Mixture)	LC50	Annelida(Lumbriculus variegatus)	138 mg/L, Static Acute Bioassay, 96 hour
		Benthic Crustacean(Gammarus pseudolimnaeus)	42.1 mg/L, Static Acute Bioassay, 96 hour
		Bluegill Sunfish	36.6 mg/L, Static Acute Bioassay, 96 hour
		Ceriodaphnia	124 mg/L, Static Renewal Bioassay, 48 hour
		Fathead Minnow	135 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)
			50.7 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
		Freshwater Snail(Physa sp.)	47.4 mg/L, Static Acute Bioassay, 96 hour
		Menidia beryllina (Silversides)	41 mg/L, Static Acute Bioassay, 96 hour
		Midge larvae (Chironomus tentans)	95.8 mg/L, Static Acute Bioassay, 96 hour
		Mysid Shrimp	53 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
		Sheepshead Minnow	132 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)
	LOEL	Ceriodaphnia	40 mg/L, Chronic Bioassay, 7 day
		Fathead Minnow	8.3 mg/L, Chronic Flow-Thru Bioassay, 28 day, (pH adjusted)
	NOEL	Annelida(Lumbriculus variegatus)	62.5 mg/L, Static Acute Bioassay, 96 hour
		Benthic Crustacean(Gammarus pseudolimnaeus)	25 mg/L, Static Acute Bioassay, 96 hour
		Bluegill Sunfish	25 mg/L, Static Acute Bioassay, 96 hour
		Ceriodaphnia	75 mg/L, Static Renewal Bioassay, 48 hour
		Fathead Minnow	20 mg/L, Chronic Bioassay, 7 day
			21.8 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
			15 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)
			4.2 mg/L, Chronic Flow-Thru Bioassay, 28 day, (pH adjusted)
		Freshwater Snail(Physa sp.)	25 mg/L, Static Acute Bioassay, 96 hour
		Menidia beryllina (Silversides)	25 mg/L, Static Acute Bioassay, 96 hour
		Midge larvae (Chironomus tentans)	62.5 mg/L, Static Acute Bioassay, 96 hour
		Mysid Shrimp	25 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
		Sheepshead Minnow	100 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)
Aquatic	Crustacea	Daphnia magna	155 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
		Daphnia magna	210 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
	LC50	Daphnia magna	50 mg/L, Chronic Bioassay, 21 day, (pH adjusted)
			217 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

Product		Species	Test Results
	NOEL	Daphnia magna	148 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
			27 mg/L, Chronic Bioassay, 21 day, (pH adjusted)
Fish	LC50	Rainbow Trout	15.4 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Rainbow Trout	6.3 mg/L, Static Renewal Bioassay, 96 hour
Components		Species	Test Results
Chlorotolyltriazole sodium salt (CAS 202420-04-0)			
<b>Aquatic</b>			
Algae	EbC50	Algae	6.84 mg/l
	ErC50	Algae	18.6 mg/l

\* Estimates for product may be based on additional component data not shown.

<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	Nutrients: N: 40,4 mg/g
<b>Persistence and degradability</b>	Testing has shown product not to be readily biodegradable.
- COD (mgO <sub>2</sub> /g)	300
- BOD 5 (mgO <sub>2</sub> /g)	15
- BOD 28 (mgO <sub>2</sub> /g)	15
- Closed Bottle Test (% Degradation in 28 days)	6
- Zahn-Wellens Test (% Degradation in 28 days)	0
- TOC (mg C/g)	100

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN1760
<b>UN proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE, HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	154

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

#### IATA

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

#### DOT



#### IATA; IMDG



## 15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	
Not regulated.	
CERCLA Hazardous Substance List (40 CFR 302.4)	
Sodium hydroxide (CAS 1310-73-2)	Listed.
SARA 304 Emergency release notification	
Not regulated.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**Safe Drinking Water Act (SDWA)** Not regulated.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**NSF Registered and/or meets USDA (according to 1998 guidelines):** Registration No. – 141530  
Category Code(s):  
G5 Cooling and retort water treatment products  
G7 Boiler, steam line treatment products – nonfood contact

**US state regulations****US - Massachusetts RTK - Substance List**

Sodium hydroxide (CAS 1310-73-2)

**US - Pennsylvania RTK - Hazardous Substances**

Sodium hydroxide (CAS 1310-73-2)

**US - Rhode Island RTK**

Sodium hydroxide (CAS 1310-73-2)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Sodium hydroxide (CAS 1310-73-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Sodium hydroxide (CAS 1310-73-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Sodium hydroxide (CAS 1310-73-2)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

No ingredient listed.

## 16. Other information, including date of preparation or last revision

**Issue date** Oct-24-2014

**Revision date** Aug-08-2016

**Version #** 3.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
 TWA: Time Weighted Average  
 STEL: Short Term Exposure Limit  
 LD50: Lethal Dose, 50%  
 LC50: Lethal Concentration, 50%  
 NOEL: No Observed Effect Level  
 COD: Chemical Oxygen Demand  
 BOD: Biochemical Oxygen Demand  
 TOC: Total Organic Carbon  
 IATA: International Air Transport Association  
 IMDG: International Maritime Dangerous Goods Code  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).



# SAFETY DATA SHEET

## KLARAID\* PC1192

### 1. Identification

**Product identifier** KLARAID PC1192  
**Other means of identification** None.  
**Recommended use** Coagulant  
**Recommended restrictions** None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Serious eye damage/eye irritation Category 2  
**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Warning

**Hazard statement** Causes serious eye irritation.

#### Precautionary statement

**Prevention** Wear eye/face protection. Wash thoroughly after handling.

**Response** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
N,N-Dimethyl-N-2-propenyl-2-propen-1-ammonium chloride homopolymer	26062-79-3	10 - 20

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.



## Composition comments

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

## 4. First-aid measures

### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

### Skin contact

Wash off with soap and water.

### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

### General fire hazards

No unusual fire or explosion hazards noted.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

### Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

## 7. Handling and storage

### Precautions for safe handling

Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

## 8. Exposure controls/personal protection

### Occupational exposure limits

No exposure limits noted for ingredient(s).

### Biological limit values

No biological exposure limits noted for the ingredient(s).

<b>Appropriate engineering controls</b>	Provide eyewash station. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Color</b>	Yellow
<b>Physical state</b>	Liquid
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	6.3
<b>pH in aqueous solution</b>	6.2 (5% SOL.)
<b>Melting point/freezing point</b>	30 °F (-1 °C)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	< 1 (Air = 1)
<b>Relative density</b>	1.03
<b>Relative density temperature</b>	70 °F (21 °C)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 %
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	168 cps
<b>Viscosity temperature</b>	70 °F (21 °C)

**Other information**

Percent volatile	0 (ASTM 3960-93)
Pour point	35 °F (2 °C)
Specific gravity	1.032

**10. Stability and reactivity**

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.

**11. Toxicological information****Information on likely routes of exposure**

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Information on toxicological effects****Acute toxicity**

Product	Species	Test Results
KLARAID PC1192 (CAS Mixture)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
N,N-Dimethyl-N-2-propenyl-2-propen- 1-amonium chloride homopolymer (CAS 26062-79-3)		
Acute		
Oral		
LD50	Rat	3000 mg/kg

\* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated.
US. National Toxicology Program (NTP) Report on Carcinogens	Not listed.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.

<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

## 12. Ecological information

### Ecotoxicity

Product		Species	Test Results
KLARAID PC1192 (CAS Mixture)	LC50	Ceriodaphnia	9.3 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
		Fathead Minnow	3.8 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
	NOEL	Ceriodaphnia	6.25 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
		Fathead Minnow	2.5 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
Aquatic			
Crustacea	LC50	Daphnia magna	32 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
	NOEL	Daphnia magna	15.6 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
Fish	LC50	Rainbow Trout	14.1 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
	NOEL	Rainbow Trout	10 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)

\* Estimates for product may be based on additional component data not shown.

<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	Not available.

### Persistence and degradability

- COD (mgO2/g)	270
- BOD 5 (mgO2/g)	0
- BOD 28 (mgO2/g)	7
- Closed Bottle Test (% Degradation in 28 days)	3
- Zahn-Wellens Test (% Degradation in 28 days)	6
- TOC (mg C/g)	90

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

#### **IATA**

Not regulated as dangerous goods.

#### **IMDG**

Not regulated as dangerous goods.

### **15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

#### **SARA 304 Emergency release notification**

Not regulated.

#### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### **SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

#### **SARA 313 (TRI reporting)**

Not regulated.

#### **Other federal regulations**

##### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

##### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

#### **Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Food and drug administration** 21 CFR 176.170 (components of paper and paperboard in contact with aqueous and fatty foods)

#### **US state regulations**

##### **US - Massachusetts RTK - Substance List**

Not regulated.

##### **US - Pennsylvania RTK - Hazardous Substances**

Not regulated.

##### **US - Rhode Island RTK**

Not regulated.

##### **US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision**

**Issue date** Oct-20-2014

**Revision date** Sep-27-2016

**Version #** 3.0

**List of abbreviations** CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** Hazard(s) identification: Prevention  
Composition/information on ingredients: Composition comments  
Exposure controls/personal protection: Appropriate engineering controls  
Exposure controls/personal protection: Respiratory protection  
Physical and chemical properties: Explosive properties  
Physical and chemical properties: Oxidizing properties  
Stability and reactivity: Possibility of hazardous reactions  
Toxicological information: Aspiration hazard  
Toxicological information: Respiratory sensitization  
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection  
Other information, including date of preparation or last revision: Further information  
HazReg Data: Pacific Rim  
GHS: Classification

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



## Material Safety Data Sheet

Issue Date: 15-JUN-2011  
Supercedes: 13-JUN-2011

KLARAID PC1195

### 1 Identification

Identification of substance or preparation  
KLARAID PC1195

Product Application Area  
Coagulant.

Company/Undertaking Identification  
GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355-3300, F 215 953 5524

Emergency Telephone  
(800) 877-1940

Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 15-JUN-2011

### 2 Hazard(s) identification

\*\*\*\*\*

#### EMERGENCY OVERVIEW

##### CAUTION

Non-hazardous to skin. May cause moderate irritation to the eyes.  
Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard: IMDG Marine Pollutant  
Odor: Amine; Appearance: Colorless To Amber, Liquid

Fire fighters should wear positive pressure self-contained breathing  
apparatus(full face-piece type). Proper fire-extinguishing media:  
dry chemical/CO2/foam or water--slippery condition; use sand/grit.

\*\*\*\*\*

#### POTENTIAL HEALTH EFFECTS

##### ACUTE SKIN EFFECTS:

Primary route of exposure; Non-hazardous to skin.

##### ACUTE EYE EFFECTS:

May cause moderate irritation to the eyes.

##### ACUTE RESPIRATORY EFFECTS:

Mists/aerosols may cause irritation to upper respiratory tract.

##### INGESTION EFFECTS:

May cause slight gastrointestinal irritation.

**TARGET ORGANS:**

No evidence of potential chronic effects.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

May cause redness or itching of skin, irritation, and/or tearing of eyes (direct contact).

### 3 Composition / information on ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

**HAZARDOUS INGREDIENTS:**

This product is not hazardous as defined by OSHA regulations.

No component is considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration at OSHA thresholds for carcinogens.

### 4 First-aid measures

**SKIN CONTACT:**

Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**EYE CONTACT:**

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

**INHALATION:**

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.

**INGESTION:**

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 2-8 fluid ounces (60-240 mL) of milk or water.

**NOTES TO PHYSICIANS:**

No special instructions

### 5 Fire-fighting measures



**FIRE FIGHTING INSTRUCTIONS:**

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

**EXTINGUISHING MEDIA:**

dry chemical/CO2/foam or water--slippery condition; use sand/grit.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

oxides of carbon and nitrogen

**FLASH POINT:**

> 200F > 93C P-M(CC)

## 6 Accidental release measures

**PROTECTION AND SPILL CONTAINMENT:**

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

**DISPOSAL INSTRUCTIONS:**

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

## 7 Handling and storage

**HANDLING:**

Normal chemical handling.

**STORAGE:**

Keep containers closed when not in use. Protect from freezing.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

This product is not hazardous as defined by OSHA regulations.

**ENGINEERING CONTROLS:**

adequate ventilation

**PERSONAL PROTECTIVE EQUIPMENT:**

Use protective equipment in accordance with 29CFR 1910 Subpart I

**RESPIRATORY PROTECTION:**

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.

If air-purifying respirator use is appropriate, use any of the following particulate respirators: N95, N99, N100, R95, R99, R100, P95, P99 or P100.

**SKIN PROTECTION:**

rubber, butyl, viton or neoprene gloves -- Wash off after each use. Replace as necessary.

**EYE PROTECTION:**

splash proof chemical goggles

## 9 Physical and chemical properties

Spec. Grav. (70F, 21C)	1.152	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	5	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-15		
Viscosity (cps 70F, 21C)	4100	% Solubility (water)	100.0

Odor	Amine
Appearance	Colorless To Amber
Physical State	Liquid
Flash Point	P-M(CC) > 200F > 93C
pH As Is (approx.)	5.5
Evaporation Rate (Ether=1)	< 1.00
Percent VOC:	0.0

NA = not applicable    ND = not determined

## 10 Stability and reactivity

### CHEMICAL STABILITY:

Stable under normal storage conditions.

### POSSIBILITY OF HAZARDOUS REACTIONS:

Contact with water reactive compounds may cause fire or explosion.

### INCOMPATIBILITIES:

May react with strong oxidizers.

### DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen

## 11 Toxicological information

Oral LD50 RAT: >5000 mg/kg  
NOTE - Calculated value according to GHS additivity formula  
Dermal LD50 RABBIT: >5000 mg/kg  
NOTE - Calculated value according to GHS additivity formula  
Skin Irritation Score RABBIT: 0.0  
NOTE - Rabbit Irritation Score: 0.1 per alternate source  
Eye Irritation Score RABBIT: 17.33  
NOTE - Max. score- 1hr; completely reversible by day 14; Score 9.0 per alternate study

## 12 Ecological information

### AQUATIC TOXICOLOGY

Bluegill Sunfish 96 Hour Static Acute Bioassay

LC50= .53; No Effect Level= .32 mg/L

Daphnia magna 48 Hour Static Acute Bioassay

LC50= .57; No Effect Level= .24 mg/L

Fathead Minnow 96 Hour Static Renewal Bioassay

LC50= .43; No Effect Level= .25 mg/L

Rainbow Trout 96 Hour Static Acute Bioassay

LC50= .41; No Effect Level= .24 mg/L

### BIODEGRADATION

BOD-28 (mg/g): 3

BOD-5 (mg/g): 0

COD (mg/g): 390

TOC (mg/g): 190

## 13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :  
Not applicable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

## 14 Transport information

Transportation Hazard: IMDG Marine Pollutant  
DOT: Not Regulated

DOT EMERGENCY RESPONSE GUIDE #: Not applicable

Note: Some containers may be DOT exempt, please check BOL for exact container classification

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.(CATIONIC POLYAMINE)

9, UN3082, PG III, MARINE POLLUTANT

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.(CATIONIC POLYAMINE)

9, UN3082, PG III, MARINE POLLUTANT

## 15 Regulatory information

### **TSCA:**

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

### **CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):**

No regulated constituent present at OSHA thresholds

### **FOOD AND DRUG ADMINISTRATION:**

21 CFR 176.170 (components of paper and paperboard in contact with aqueous and fatty foods)

### **NSF Registered and/or meets USDA (according to 1998 Guidelines):**

Registration number: Not Registered

L1

### **SARA SECTION 312 HAZARD CLASS:**

Product is non-hazardous under Section 311/312

### **SARA SECTION 302 CHEMICALS:**

No regulated constituent present at OSHA thresholds

### **SARA SECTION 313 CHEMICALS:**

No regulated constituent present at OSHA thresholds

### **CALIFORNIA REGULATORY INFORMATION**

#### **CALIFORNIA SAFE DRINKING WATER AND TOXIC**

#### **ENFORCEMENT ACT (PROPOSITION 65):**

This product contains one or more ingredients at trace levels known to the state of California to cause cancer and reproductive toxicity.

### **MICHIGAN REGULATORY INFORMATION**

No regulated constituent present at OSHA thresholds

## 16 Other information

### HMIS VII

### CODE TRANSLATION

Health	0	Minimal Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles, Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

### CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
	-----	-----	-----
MSDS status:	28-JAN-1997		** NEW **
	23-MAY-1997	15	28-JAN-1997
	28-MAY-1997	15	23-MAY-1997
	09-SEP-1997	3, 8, 11; EDIT: 4	28-MAY-1997
	18-JAN-1999	15	09-SEP-1997
	17-MAY-1999	11	18-JAN-1999
	22-MAY-2000	4, 16	17-MAY-1999
	05-NOV-2007	4, 5, 8, 10, 15	22-MAY-2000
	02-JUL-2010	10	05-NOV-2007
	03-JUN-2011	14	02-JUL-2010
	13-JUN-2011	11	03-JUN-2011
	15-JUN-2011	11	13-JUN-2011



## SAFETY DATA SHEET

### NOVUS\* CE2680

#### 1. Identification

Product identifier	NOVUS CE2680
Other means of identification	None.
Recommended use	Flocculant
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

#### 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
OSHA defined hazards	Not classified.	

#### Label elements



Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
Precautionary statement	
Prevention	Wear eye/face protection. Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves.
Response	If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

Supplemental information      None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Distillates (petroleum), hydrotreated light	64742-47-8	20 - 40
ALCOHOLS,C11-C14-ISO,C13-RICH,ETHOXYLATED	78330-21-9	1 - 2.5
Acrylamide	79-06-1	0.1 - 1
Diethylenetriamine pentaacetic acid, pentasodium salt	140-01-2	0.1 - 1
Propan-2-ol (Isopropyl alcohol)	67-63-0	0.1 - 1
[2-(acryloyloxy)ethyl]trimethylammonium chloride	44992-01-0	0.1 - 1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments**      Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

**Inhalation**      Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin contact**      Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**      Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**      Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**      May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

**Indication of immediate medical attention and special treatment needed**      Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information**      If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

**Suitable extinguishing media**      Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**      Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**      During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**      Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire fighting equipment/instructions**      In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

**Specific methods**      Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**      No unusual fire or explosion hazards noted.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**      Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Ventilate area, use specified protective equipment.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Avoid breathing mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid prolonged or repeated contact with skin. Avoid contact with clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat and sources of ignition. Protect from freezing. Product forms unusable solids that can not be thawed, even at room temperature, if subjected to freezing conditions. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Acrylamide (CAS 79-06-1)	PEL	0.3 mg/m <sup>3</sup>
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)	PEL	980 mg/m <sup>3</sup>
		400 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Acrylamide (CAS 79-06-1)	TWA	0.03 mg/m <sup>3</sup>	Inhalable fraction and vapor.
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acrylamide (CAS 79-06-1)	TWA	0.03 mg/m <sup>3</sup>
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m <sup>3</sup>
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)	STEL	1225 mg/m <sup>3</sup>
		500 ppm
	TWA	980 mg/m <sup>3</sup>
		400 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines****US ACGIH Threshold Limit Values: Skin designation**

Acrylamide (CAS 79-06-1) Can be absorbed through the skin.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Acrylamide (CAS 79-06-1) Can be absorbed through the skin.

<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Splash proof chemical goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Color</b>	White to off-white
<b>Physical state</b>	Emulsion
<b>Odor</b>	Slight hydrocarbon
<b>Odor threshold</b>	Not available.
<b>pH in aqueous solution</b>	4.8 (1% SOL.) 4.9 (0.5% SOL.)
<b>Melting point/freezing point</b>	< 23 °F (< -5 °C)
<b>Initial boiling point and boiling range</b>	210 °F (99 °C)
<b>Flash point</b>	> 200 °F (> 93 °C) P-M(CC)
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	> 1 (Air = 1)
<b>Relative density</b>	1.03
<b>Relative density temperature</b>	70 °F (21 °C)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	1300 cps



Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	25 (Estimated)
Pour point	< 28 °F (< -2 °C)
Specific gravity	1.03

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Protect from freezing. Avoid contact with strong oxidizers.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May cause gastrointestinal irritation with possible nausea, vomiting, diarrhea, mental confusion, dizziness and lethargy.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

### Information on toxicological effects

**Acute toxicity** Narcotic effects. May cause respiratory irritation.

Product	Species	Test Results
NOVUS CE2680 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg. (Calculated according to GHS additivity formula)
Inhalation		
LC50	Rat	> 20 mg/l, 4 Hours. (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	> 5000 mg/kg. (Calculated according to GHS additivity formula)

Components	Species	Test Results
{2-(acryloyloxy)ethyl}trimethylammonium chloride (CAS 44992-01-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	1600 - 2000 mg/kg
Acrylamide (CAS 79-06-1)		
Acute		
Dermal		
LD50	Rabbit	1141 mg/kg
Inhalation		
LC50	Rat	3.025 mg/l, 4 Hours

Components	Species	Test Results
<i>Oral</i> LD50	Rat	200 mg/kg
Diethylenetriamine pentaacetic acid, pentasodium salt (CAS 140-01-2)		
<i>Acute</i> <i>Dermal</i> LD50	Rabbit	> 2000 mg/kg
<i>Oral</i> LD50	Rat	4550 mg/kg
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
<i>Acute</i> <i>Dermal</i> LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i> LC50	Rat	> 5.2 mg/l, 4 Hour
<i>Oral</i> LD50	Rat	> 5000 mg/kg
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)		
<i>Acute</i> <i>Dermal</i> LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i> LC50	Rat	72.6 mg/L, 4 Hour
<i>Oral</i> LD50	Rat	5045 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** This product is not expected to cause respiratory sensitization.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Acrylamide (CAS 79-06-1) 2A Probably carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Acrylamide (CAS 79-06-1) Reasonably Anticipated to be a Human Carcinogen.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Narcotic effects. May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

### Ecotoxicity

Product		Species	Test Results
NOVUS CE2680 (CAS Mixture)	LC50	Ceriodaphnia	0.09 mg/L, Static Renewal Bioassay, 48 hour
		Fathead Minnow	5.1 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Ceriodaphnia	0.06 mg/L, Static Renewal Bioassay, 48 hour
		Fathead Minnow	0.8 mg/L, Static Renewal Bioassay, 96 hour
	<b>Aquatic</b>		
	<b>Crustacea</b>		
	LC50	Daphnia magna	2.4 mg/L, Static Renewal Bioassay, 48 hour
	NOEL	Daphnia magna	0.39 mg/L, Static Renewal Bioassay, 48 hour
	<b>Fish</b>		
	LC50	Rainbow Trout	1.1 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Rainbow Trout	0.75 mg/L, Static Renewal Bioassay, 96 hour

\* Estimates for product may be based on additional component data not shown.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**

Acrylamide -0.67

Distillates (petroleum), hydrotreated light 3 - 6

Propan-2-ol (Isopropyl alcohol) 0.05

**Bioconcentration factor (BCF)**

Distillates (petroleum), hydrotreated light 207.7

**Mobility in soil** No data available.

**Other adverse effects** Not available.

### Persistence and degradability

Testing has shown product to be inherently biodegradable.

- COD (mgO<sub>2</sub>/g) 850

- BOD 5 (mgO<sub>2</sub>/g) 122

- BOD 28 (mgO<sub>2</sub>/g) 132

- Closed Bottle Test (%) 16

**Degradation in 28 days)**

- Zahn-Wellens Test (%) 44

**Degradation in 28 days)**

- TOC (mg C/g) 320

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

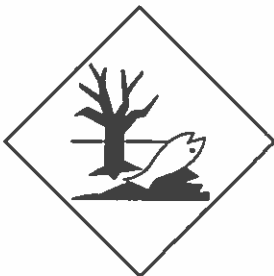
Not regulated as dangerous goods.

**IATA**

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (QUATERNARY AMMONIUM POLYACRYLAMIDE)
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	171
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (QUATERNARY AMMONIUM POLYACRYLAMIDE), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
Marine pollutant	Yes
<b>EmS</b>	F-A,S-F
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IATA; IMDG****Marine pollutant****General information**

IMDG Regulated Marine Pollutant.

**15. Regulatory information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Acrylamide (CAS 79-06-1)

Listed.

Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

Listed.

**SARA 304 Emergency release notification**

Acrylamide (CAS 79-06-1)

5000 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Acrylamide	79-06-1	5000		1000 lbs	10000 lbs
<b>SARA 311/312 Hazardous chemical</b>	Yes				

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Acrylamide	79-06-1	0.1 - 1
Propan-2-ol (Isopropyl alcohol)	67-63-0	0.1 - 1

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Acrylamide (CAS 79-06-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0) Low priority

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Food and drug administration** Generally recognized as safe (GRAS) for papermaking applications that may contact aqueous and fatty food per 21 CFR 170.30.

**US state regulations****US - Massachusetts RTK - Substance List**

Acrylamide (CAS 79-06-1)  
 Distillates (petroleum), hydrotreated light (CAS 64742-47-8)  
 Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US - Pennsylvania RTK - Hazardous Substances**

Acrylamide (CAS 79-06-1)  
 Distillates (petroleum), hydrotreated light (CAS 64742-47-8)  
 Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US - Rhode Island RTK**

Acrylamide (CAS 79-06-1)  
 Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Acrylamide (CAS 79-06-1)  
 Distillates (petroleum), hydrotreated light (CAS 64742-47-8)  
 Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US. New Jersey Worker and Community Right-to-Know Act**

Acrylamide (CAS 79-06-1)  
 Distillates (petroleum), hydrotreated light (CAS 64742-47-8)  
 Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acrylamide (CAS 79-06-1)  
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)  
Propan-2-ol (Isopropyl alcohol) (CAS 67-63-0)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

1,4-DIOXANE (CAS 123-91-1)	Listed: January 1, 1988
Acrylamide (CAS 79-06-1)	Listed: January 1, 1990
Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: July 1, 1987

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

Acrylamide (CAS 79-06-1)	Listed: February 25, 2011
Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: August 7, 2009

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: February 27, 1987
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**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

Acrylamide (CAS 79-06-1)	Listed: February 25, 2011
Ethylene oxide (oxirane) (CAS 75-21-8)	Listed: August 7, 2009

**16. Other information, including date of preparation or last revision**

**Issue date** Nov-14-2014

**Revision date** May-26-2016

**Version #** 2.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## OPTISPERSE\* HTP73611

### 1. Identification

Product identifier	OPTISPERSE HTP73611
Other means of identification	None.
Recommended use	Water based internal boiler treatment chemical.
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

Prevention Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a corrosive resistant container with a resistant inner liner.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Sodium hydroxide	1310-73-2	2.5 - 10

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Carbon dioxide (CO2). Foam. Dry chemical powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers / tanks with water spray.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### 7. Handling and storage

<b>Precautions for safe handling</b>	Alkaline. Do not mix with acidic material. Provide adequate ventilation. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not breathe mist or vapor. Avoid prolonged exposure. Do not get in eyes, on skin, or on clothing. Use care in handling/storage.
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**Conditions for safe storage,  
including any incompatibilities**

Do not freeze. If frozen, thaw completely and mix thoroughly prior to use. Store locked up. Store away from incompatible materials (see Section 10 of the SDS). Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Splash proof chemical goggles. Face shield.

#### Skin protection

##### Hand protection

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present. Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

Wear appropriate chemical resistant clothing.

### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Color** Yellow to amber

**Physical state** Liquid

**Odor** Slight

**Odor threshold** Not available.

**pH (concentrated product)** 13

**pH in aqueous solution** 12.3 (5% SOL.)

**Melting point/freezing point** 25 °F (-4 °C)

**Initial boiling point and boiling range** 210 °F (99 °C)

**Flash point** > 200 °F (> 93 °C) P-M(CC)

**Evaporation rate** < 1 (Ether = 1)

**Flammability (solid, gas)** Not applicable.

**Upper/lower flammability or explosive limits**

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.08
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	6 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	0 (Calculated)
Pour point	30 °F (-1 °C)
Specific gravity	1.076

**10. Stability and reactivity**

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None under normal conditions.
Incompatible materials	Avoid contact with strong acids and oxidisers. Strong acids. Strong oxidizing agents. Metals.
Hazardous decomposition products	Oxides of carbon and phosphorus evolved in fire.

**11. Toxicological information****Information on likely routes of exposure**

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

**Information on toxicological effects**

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
OPTISPERSE HTP73611 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Product	Species	Test Results
<i>Inhalation</i> LC50	Rat	> 5 mg/l, 4 Hours, (Calculated according to GHS additivity formula)
<i>Oral</i> LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation** Causes serious eye damage.

**Respiratory or skin sensitization**

**Respiratory sensitization** This product is not expected to cause respiratory sensitization.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity  
- single exposure** May cause respiratory irritation.

**Specific target organ toxicity  
- repeated exposure** Not classified.

**Aspiration hazard** Based on available data, the classification criteria are not met. Aspiration of this product may cause the same corrosiveness/irritation impacts as if it were ingested.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity**

Product	Species	Test Results
OPTISPERSE HTP73611 (CAS Mixture)		
NOEL	Fathead Minnow	5000 mg/L, Acute Toxicity, 96 hour, (Estimated)
<b>Aquatic</b>		
Crustacea	Daphnia magna	> 5000 mg/L, Acute Toxicity, 48 hour, (Estimated)
NOEL	Daphnia magna	3050 mg/L, Acute Toxicity, 48 hour, (Estimated)

\* Estimates for product may be based on additional component data not shown.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** Not available.

**Persistence and degradability**

- COD (mgO<sub>2</sub>/g) 56 (calculated data)

- BOD 5 (mgO<sub>2</sub>/g) 6 (calculated data)

- BOD 28 (mgO<sub>2</sub>/g) 6 (calculated data)

- Closed Bottle Test (%) 11 (calculated data)

**Degradation in 28 days**

- Zahn-Wellens Test (% Degradation in 28 days)	18 (calculated data)
- TOC (mg C/g)	15 (calculated data)

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1824
<b>UN proper shipping name</b>	Sodium hydroxide solution, RQ
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

#### IATA

<b>UN number</b>	UN1824
<b>UN proper shipping name</b>	Sodium hydroxide solution
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	154
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

<b>UN number</b>	UN1824
<b>UN proper shipping name</b>	SODIUM HYDROXIDE SOLUTION, RQ
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
Marine pollutant	No.
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2)

Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

#### SARA 311/312 Hazardous chemical

Yes

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

### Inventory status

#### Country(s) or region

Canada

Canada

#### Inventory name

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

#### On inventory (yes/no)\*

Yes

No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

#### US state regulations

##### US - Massachusetts RTK - Substance List

Sodium hydroxide (CAS 1310-73-2)

##### US - Pennsylvania RTK - Hazardous Substances

Sodium hydroxide (CAS 1310-73-2)

##### US - Rhode Island RTK

Sodium hydroxide (CAS 1310-73-2)

##### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

##### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sodium hydroxide (CAS 1310-73-2)

##### US. New Jersey Worker and Community Right-to-Know Act

Sodium hydroxide (CAS 1310-73-2)

##### US. Pennsylvania Worker and Community Right-to-Know Law

Sodium hydroxide (CAS 1310-73-2)

##### US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

##### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

NICKEL (CAS 7440-02-0)

Listed: October 1, 1989

##### US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

##### US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

##### US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

## 16. Other information, including date of preparation or last revision

Issue date Nov-25-2014

Revision date Sep-27-2016

Version # 3.0

#### List of abbreviations

CAS: Chemical Abstract Service Registration Number  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.  
ACGIH: American Conference of Governmental Industrial Hygienists  
NOEL: No Observed Effect Level  
STEL: Short Term Exposure Limit  
LC50: Lethal Concentration, 50%  
TWA: Time Weighted Average  
BOD: Biochemical Oxygen Demand  
COD: Chemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
LD50: Lethal Dose, 50%  
NFPA: National Fire Protection Association

References: No data available

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

#### Revision information

This document has undergone significant changes and should be reviewed in its entirety.

#### Prepared by

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## OPTISPERSE\* HTP78609

### 1. Identification

Product identifier	OPTISPERSE HTP78609
Other means of identification	None.
Recommended use	Water based internal boiler treatment chemical.
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Not classified.	
OSHA defined hazards	Not classified.	

#### Label elements



Signal word	Warning
Hazard statement	May be corrosive to metals.
Precautionary statement	
Prevention	Keep only in original container.
Response	Absorb spillage to prevent material damage.
Storage	Store in corrosive resistant/ container with a resistant inner liner.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

### 3. Composition/information on ingredients

#### Mixtures

This material is not considered to be hazardous according to regulatory guidelines (see Section 15 of the SDS). The components are not hazardous or are below required disclosure limits.

**Composition comments** This product does not contain hazardous ingredients in reportable concentrations. Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.



## 4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with water for 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Do not freeze. If frozen, thaw completely and mix thoroughly prior to use. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Splash proof chemical goggles.

<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Color</b>	Colorless to amber
<b>Physical state</b>	Liquid
<b>Odor</b>	Slight
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	11.3
<b>pH in aqueous solution</b>	10.1 (5% SOL.)
<b>Melting point/freezing point</b>	29 °F (-2 °C)
<b>Initial boiling point and boiling range</b>	220 °F (104 °C)
<b>Flash point</b>	> 200 °F (> 93 °C) P-M(CC)
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	< 1 (Air = 1)
<b>Relative density</b>	1.04
<b>Relative density temperature</b>	70 °F (21 °C)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 %
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	10 cps
<b>Viscosity temperature</b>	70 °F (21 °C)
<b>Other information</b>	
<b>Percent volatile</b>	0 (Calculated)
<b>Pour point</b>	34 °F (1 °C)
<b>Specific gravity</b>	1.04

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
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<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Contact with water reactive compounds may cause fire or explosion. Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Aluminum.
<b>Hazardous decomposition products</b>	Oxides of carbon and phosphorus evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to respiratory organs.
<b>Skin contact</b>	Prolonged or repeated contact may cause irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
OPTISPERSE HTP78609 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species		Test Results
OPTISPERSE HTP78609 (CAS Mixture)	0% Mortality	Fathead Minnow	5000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour
		Mysid Shrimp	16000 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
	Aquatic Crustacea	0% Mortality	Daphnia magna
* Estimates for product may be based on additional component data not shown.			
Bioaccumulative potential	No data available.		
Mobility in soil	No data available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		
Environmental fate	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Persistence and degradability	No data is available on the degradability of this product.		
- COD (mgO2/g)	57 (calculated data)		
- BOD 5 (mgO2/g)	6 (calculated data)		
- BOD 28 (mgO2/g)	6 (calculated data)		
- Closed Bottle Test (% Degradation in 28 days)	11 (calculated data)		
- Zahn-Wellens Test (% Degradation in 28 days)	18 (calculated data)		
- TOC (mg C/g)	15 (calculated data)		
13. Disposal considerations			
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.		
14. Transport information			
DOT			
UN number	UN3266		
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE RQ = 769231 LBS, 1-METHYLETHENYL PHOSPHONIC ACID HOMOPOLYMER, SODIUM SALT)		
Transport hazard class(es)			
Class	8		
Subsidiary risk	-		
Packing group	III		
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.		
ERG number	154		
Some containers may be DOT exempt, please check BOL for exact container classification.			
IATA			
UN number	UN3266		
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE, 1-METHYLETHENYL PHOSPHONIC ACID HOMOPOLYMER, SODIUM SALT)		

**Transport hazard class(es)**

Class 8

Subsidiary risk -

Packing group III

Environmental hazards No.

ERG Code 154

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

UN number UN3266

UN proper shipping name CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE, 1-METHYLETHENYL PHOSPHONIC ACID HOMOPOLYMER, SODIUM SALT)

**Transport hazard class(es)**

Class 8

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant No.

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**DOT****IATA; IMDG****15. Regulatory information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components of this product are included on or are in compliance with the U.S. TSCA regulations.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Food and drug administration** All ingredients in this product are authorized in 21 CFR176.170 for use in boilers where the steam will be used for manufacturing paper or paperboard.**US state regulations****US - Massachusetts RTK - Substance List**

Not regulated.

**US - Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US - Rhode Island RTK**

Not regulated.

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

NICKEL (CAS 7440-02-0)

Listed: October 1, 1989

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision****Issue date** Jan-28-2015**Revision date** Jan-28-2015**Version #** 1.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.  
ACGIH: American Conference of Governmental Industrial Hygienists  
NOEL: No Observed Effect Level  
STEL: Short Term Exposure Limit  
LC50: Lethal Concentration, 50%  
TWA: Time Weighted Average  
BOD: Biochemical Oxygen Demand  
COD: Chemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TLV: Threshold Limit Value  
LD50: Lethal Dose, 50%  
NFPA: National Fire Protection Association

**References:**

No data available

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision Information**

Product and Company Identification: Physical States  
Toxicological Information: Toxicological Data  
Transport Information: Experimental Data  
HazReg Data: International Inventories  
GHS: Classification

**Prepared by**

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

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Version: 2.0

Effective Date: Aug-17-2015

Previous Date: Oct-27-2014



GE Power & Water  
Water & Process Technologies

## SAFETY DATA SHEET

### SPECTRUS\* BD1501E

#### 1. Identification

**Product identifier** SPECTRUS BD1501E  
**Other means of identification** None.  
**Recommended use** Biodispersant  
**Recommended restrictions** None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

#### 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 1  
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Danger  
**Hazard statement** Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

**Prevention** Wear eye/face protection. Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves.  
**Response** If on skin: Wash with plenty of water/. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.



### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Alcohols, C10, alkoxyated	166736-08-9	10 - 20

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Call a POISON CENTER or doctor/physician if you feel unwell. If nasal, throat or lung irritation develops - remove to fresh air and get medical attention.
<b>Skin contact</b>	Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Ventilate area, use specified protective equipment. Flush area with water. Wet area may be slippery.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Do not get this material in contact with eyes. Avoid breathing mist or vapor. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store in cool, well ventilated area. Store away from oxidizers.

## 8. Exposure controls/personal protection

### Occupational exposure limits

No exposure limits noted for ingredient(s).

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Adequate ventilation to maintain air contaminants below exposure limits.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Splash proof chemical goggles.

#### Skin protection

##### Hand protection

Chemical resistant gloves.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Impervious gloves. Wash off after each use. Replace as necessary.

#### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary. Not applicable.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Color

Colorless

#### Physical state

Liquid

### Odor

Mild

### Odor threshold

Not available.

### pH (concentrated product)

6.7

### Melting point/freezing point

31 °F (-1 °C)

### Initial boiling point and boiling range

220 °F (104 °C)

### Flash point

Not applicable.

### Evaporation rate

< 1 (Ether = 1)

### Flammability (solid, gas)

Not available.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

Not available.

#### Flammability limit - upper (%)

Not available.

#### Explosive limit - lower (%)

Not available.

#### Explosive limit - upper (%)

Not available.

### Vapor pressure

18 mm Hg

### Vapor pressure temp.

70 °F (21 °C)

### Vapor density

< 1 (Air = 1)

Relative density	1.02
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	110 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0 (Estimated)
Pour point	36 °F (2 °C)
Specific gravity	1.02

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Avoid contact with strong oxidizers. Protect from freezing.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage.
Ingestion	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. May cause redness and pain.

### Information on toxicological effects

**Acute toxicity** May cause respiratory irritation.

Product	Species	Test Results
SPECTRUS BD1501E (CAS Mixture)		
Acute		
Oral		
LD50	Rat	3571 mg/kg, (Calculated according to GHS additivity formula (Category 5))
Components	Species	Test Results
Alcohols, C10, alkoxylated (CAS 166736-08-9)		
Acute		
Oral		
LD50	Rat	500 - 2000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.

**Respiratory or skin sensitization****Respiratory sensitization** Not available.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not available.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not available.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

Not classified.

**Aspiration hazard**

Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.

**Chronic effects**

Prolonged inhalation may be harmful.

**12. Ecological information****Ecotoxicity**

Product		Species	Test Results
SPECTRUS BD1501E (CAS Mixture)			
	IC25	Ceriodaphnia	39.9 mg/l, Chronic Bioassay, 7 day
	LC50	Ceriodaphnia	200 mg/l, Static Renewal Bioassay, 48 hour
		Fathead Minnow	82.5 mg/l, Static Renewal Bioassay, 96 hour
	NOEL	Ceriodaphnia	100 mg/l, Static Renewal Bioassay, 48 hour
			25 mg/l, Chronic Bioassay, 7 day
	Fathead Minnow	31.3 mg/l, Static Renewal Bioassay, 96 hour	
Aquatic			
Crustacea	LC50	Daphnia magna	38.2 mg/l, Static Renewal Bioassay, 48 hour
	NOEL	Daphnia magna	12.5 mg/l, Static Renewal Bioassay, 48 hour
Fish	LC50	Rainbow Trout	141.4 mg/l, Static Renewal Bioassay, 96 hour
	NOEL	Rainbow Trout	100 mg/l, Static Renewal Bioassay, 96 hour

\* Estimates for product may be based on additional component data not shown.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**Other adverse effects**

Not available.

**Persistence and degradability**

No data available

- COD (mgO<sub>2</sub>/g) 647 (calculated data)
- BOD 5 (mgO<sub>2</sub>/g) 0 (calculated data)
- BOD 28 (mgO<sub>2</sub>/g) 0 (calculated data)
- TOC (mg C/g) 0 (calculated data)

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

### 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

##### SARA 302 Extremely hazardous substance

Not listed.

##### SARA 311/312 Hazardous chemical

No

##### SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

##### Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

##### Safe Drinking Water Act (SDWA)

Not regulated.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**NSF Registered and/or meets  
USDA (according to 1998  
guidelines):**

Registration No. - 141060  
Category Code(s):  
G5 Cooling and retort water treatment products  
G7 Boiler, steam line treatment products - nonfood contact

**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - Massachusetts RTK - Substance List**

Not regulated.

**US - Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US - Rhode Island RTK**

Not regulated.

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision**

**Issue date** Oct-27-2014

**Revision date** Aug-17-2015

**Version #** 2.0

**References:** No data available

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**Revision Information** This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## SPECTRUS\* NX1106

### 1. Identification

Product identifier	SPECTRUS NX1106
Other means of identification	None.
Recommended use	Water-based microbial control agent.
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

#### Precautionary statement

##### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

##### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

##### Disposal

Dispose of contents/container to an approved facility.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Magnesium nitrate	10377-60-3	1 - 2.5
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)	55965-84-9	1 - 2.5

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact** Rinse immediately with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do. Keep eyelids apart. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion** If ingestion of a large amount does occur, call a poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Most important symptoms/effects, acute and delayed** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

**Indication of immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. Corrosive material. Possible mucosal damage may contraindicate the use of gastric lavage. It may not be advisable to induce vomiting.

**General information** IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed. Corrosive liquid.

**Special protective equipment and precautions for firefighters** Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire fighting equipment/instructions** In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

**General fire hazards** No unusual fire or explosion hazards noted.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** Absorb the spill with spill pillows or inert solids such as clay or vermiculite. Transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer in accordance with local procedures, permits and regulations. DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. For waste disposal, see section 13 of the SDS.



<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.
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## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid all contact with reducing agents, oils, greases, organics and acids. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store upright in original vented container. Product evolves carbon dioxide gas slowly. Store samples in plastic bottles only. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Color</b>	Yellow to blue green
<b>Physical state</b>	Liquid
<b>Odor</b>	Slight
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	3
<b>pH in aqueous solution</b>	4 (5% SOL.)
<b>Melting point/freezing point</b>	28 °F (-2 °C)
<b>Initial boiling point and boiling range</b>	220 °F (104 °C)
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg / 2.4 kPa
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.03
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	8 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0 (Calculated)
Pour point	33 °F (1 °C)
Specific gravity	1.033

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. None under normal conditions.
Incompatible materials	Strong oxidizing agents. Reducing agents. Amines. mercaptans
Hazardous decomposition products	Oxides of carbon, nitrogen, and sulphur evolved in fire. Hydrogen chloride.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects

Acute toxicity	Causes severe skin burns and eye damage. May cause respiratory irritation. May cause an allergic skin reaction.
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Product	Species	Test Results
SPECTRUS NX1106 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	4468 mg/kg

Components	Species	Test Results
Magnesium nitrate (CAS 10377-60-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	5400 mg/kg
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1) (CAS 55965-84-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	90 mg/kg
<i>Inhalation</i>		
LC50	Rat	0.33 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	67 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin burns.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	This product is not expected to cause respiratory sensitization.
<b>Skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not regulated.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

## 12. Ecological information

Ecotoxicity			
Product		Species	Test Results
SPECTRUS NX1106 (CAS Mixture)			
	LC50	Bluegill Sunfish	12.1 mg/L, Static Acute Bioassay, 96 hour
		Fathead Minnow	6.6 mg/L, Flow-Thru Bioassay, 96 hour
		Sheepshead Minnow	20 mg/L, Static Acute Bioassay, 96 hour
	LOEC	Fathead Minnow	4 mg/L, Early Life Stage Test, 36 day
	NOEL	Bluegill Sunfish	6.5 mg/L, Static Acute Bioassay, 96 hour
		Fathead Minnow	2.5 mg/L, Flow-Thru Bioassay, 96 hour
			1.3 mg/L, Early Life Stage Test, 36 day
		Sheepshead Minnow	12 mg/L, Static Acute Bioassay, 96 hour
<b>Aquatic</b>			
Crustacea	10% Mortality	Daphnia magna	0.6 mg/L, Flow-Thru Bioassay, 48 hour

Product	Species		Test Results
Fish	LC50	Daphnia magna	2.9 mg/L, Flow-Thru Bioassay, 48 hour
	LC50	Rainbow Trout	8.7 mg/L, Static Acute Bioassay, 96 hour
			4.6 mg/L, Chronic Bioassay, 14 day
	NOEL	Rainbow Trout	6.5 mg/L, Static Acute Bioassay, 96 hour
			3.3 mg/L, Chronic Bioassay, 14 day
Bioaccumulative potential	No information available.		
Partition coefficient n-octanol / water (log Kow)			
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)		0.486	
Mobility in soil	No data available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		
Persistence and degradability			
- COD (mgO2/g)	17 (calculated data)		
- BOD 5 (mgO2/g)	0 (calculated data)		
- BOD 28 (mgO2/g)	0 (calculated data)		
- Closed Bottle Test (% Degradation in 28 days)	0 (calculated data)		
- Zahn-Wellens Test (% Degradation in 28 days)	0 (calculated data)		
- TOC (mg C/g)	6 (calculated data)		
13. Disposal considerations			
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in approved pesticide facility or according to label instructions.		
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company. D002= Corrosive		
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.		
14. Transport information			
DOT			
UN number	UN3265		
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)		
Transport hazard class(es)			
Class	8		
Subsidiary risk	-		
Packing group	II		
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.		
ERG number	153		
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.			
IATA			
UN number	UN3265		
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)		
Transport hazard class(es)			
Class	8		
Subsidiary risk	-		

Packing group	II
Environmental hazards	Yes
ERG Code	153
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE), MARINE POLLUTANT
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

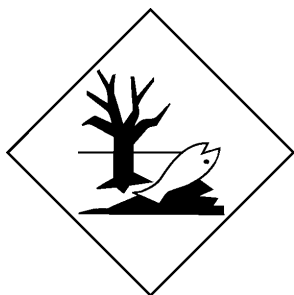
#### DOT



#### IATA; IMDG



#### Marine pollutant



General information	IMDG Regulated Marine Pollutant.
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## 15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This is an EPA registered biocide and is exempt from TSCA inventory requirements. See FIFRA registry number.
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#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**                      Immediate Hazard - Yes  
   Delayed Hazard - No  
   Fire Hazard - No  
   Pressure Hazard - No  
   Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**                      Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Magnesium nitrate	10377-60-3	1 - 2.5

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)**                      Hazardous substance

**Safe Drinking Water Act (SDWA)**                      Not regulated.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**FIFRA registration number**                      3876-143

**TSCA**                      This is an EPA registered biocide and is exempt from TSCA inventory requirements.

**FIFRA hazard statement**                      This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER  
Corrosive  
Causes irreversible eye damage and skin burns  
May be fatal if absorbed through skin  
Harmful if swallowed  
Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals  
This chemical is toxic to terrestrial and aquatic plants, fish and aquatic invertebrates

**Food and drug administration**                      The ingredients in this product are approved by FDA under 21 CFR 176.300.

**NSF Registered and/or meets USDA (according to 1998 guidelines):**                      Registration No. - 144533  
Category Code(s):  
G5 Cooling and retort water treatment products  
G7 Boiler, steam line treatment products - nonfood contact

**US state regulations****US - Massachusetts RTK - Substance List**

Magnesium nitrate (CAS 10377-60-3)

**US - Pennsylvania RTK - Hazardous Substances**

Magnesium nitrate (CAS 10377-60-3)

**US - Rhode Island RTK**

Magnesium nitrate (CAS 10377-60-3)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Magnesium nitrate (CAS 10377-60-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Magnesium nitrate (CAS 10377-60-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Magnesium nitrate (CAS 10377-60-3)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

**16. Other information, including date of preparation or last revision**

**Issue date** Dec-12-2014

**Revision date** Oct-10-2016

**Version #** 3.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**References:** No data available

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



# SAFETY DATA SHEET

## STEAMATE\* NA2460

### 1. Identification

Product identifier	STEAMATE NA2460
Other means of identification	Not available.
Recommended use	Water based internal boiler treatment chemical.
Recommended restrictions	None known.

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1A
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

#### Label elements



Signal word	Danger
Hazard statement	Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see on this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.



<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/container to .
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	52.32% of the mixture consists of component(s) of unknown acute oral toxicity.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
ALKYLENE AMINE*		TSRN 125438 - 5225P*	20 - 40
Methoxypropylamine, 3-		5332-73-0	10 - 20

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Elemental oxides.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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## Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

## Environmental precautions

## 7. Handling and storage

### Precautions for safe handling

Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Use care in handling/storage.

### Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methoxypropylamine, 3- (CAS 5332-73-0)	STEL	15 ppm
	TWA	5 ppm

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Splash proof chemical goggles. Face shield.

#### Skin protection

##### Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

#### Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

#### Color

Colorless to yellow

#### Physical state

Liquid

### Odor

Amine

### Odor threshold

Not available.

### pH (concentrated product)

12.9

### pH in aqueous solution

11.7 (5% SOL.)

### Melting point/freezing point

< -30 °F (< -34 °C)

<b>Initial boiling point and boiling range</b>	200 °F (93 °C)
<b>Flash point</b>	> 200 °F (> 93 °C) P-M(CC)
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	> 1 (Air = 1)
<b>Relative density</b>	0.97
<b>Relative density temperature</b>	70 °F (21 °C)
<b>Solubility(ies)</b>	
Solubility (water)	100 %
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	23 cps
<b>Viscosity temperature</b>	70 °F (21 °C)
<b>Other information</b>	
Percent volatile	48 (Calculated)
Pour point	< -30 °F (< -34 °C)
Specific gravity	0.97

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	None under normal conditions.
<b>Incompatible materials</b>	Avoid contact with strong acids.
<b>Hazardous decomposition products</b>	Elemental oxides

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.
<b>Inhalation</b>	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. May cause respiratory irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

**Acute toxicity** Harmful if swallowed. May cause an allergic skin reaction. May cause respiratory irritation.

Product	Species	Test Results
STEAMATE NA2460 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	1550 mg/kg, (Estimated value)
<i>Oral</i>		
LD50	Rat	2600 mg/kg, (Estimated value)
Components	Species	Test Results
ALKYLENE AMINE (CAS TSN 125438 - 5225P)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	> 4.3 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	410 mg/kg
Methoxypropylamine, 3- (CAS 5332-73-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	690 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Product		Species	Test Results
STEAMATE NA2460 (CAS Mixture)			
	10% Mortality	Mysid Shrimp	135 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
	LC50	Fathead Minnow	707 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
		Mysid Shrimp	208 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
	NOEL	Fathead Minnow	250 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)

Product		Species	Test Results
Crustacea	10% Mortality	Daphnia magna	62.5 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
	LC50	Daphnia magna	120 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

\* Estimates for product may be based on additional component data not shown.

<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
<b>Environmental fate</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
- COD (mgO <sub>2</sub> /g)	630 (calculated data)
- BOD 5 (mgO <sub>2</sub> /g)	0 (calculated data)
- BOD 28 (mgO <sub>2</sub> /g)	12 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	6 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	10 (calculated data)
- TOC (mg C/g)	262 (calculated data)

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (DIMETHYLAMINOPROPYLAMINE, METHOXYPROPYLAMINE)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	153
Some containers may be DOT exempt, please check BOL for exact container classification.	

<b>IATA</b>	
<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (DIMETHYLAMINOPROPYLAMINE, METHOXYPROPYLAMINE)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	153
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

## IMDG

UN number	UN2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (DIMETHYLAMINOPROPYLAMINE, METHOXYPROPYLAMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

## DOT



## IATA; IMDG



## 15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
------------------------	---

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Methoxypropylamine, 3- (CAS 5332-73-0) Listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
-------------------	---

### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	No
---------------------------------	----

### SARA 313 (TRI reporting)

Not regulated.

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

### Safe Drinking Water Act (SDWA)

Not regulated.

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## Food and drug administration

All ingredients in this product are authorized in 21 CFR176.170 for use in boilers where the steam will be used for manufacturing paper or paperboard.

## US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### US - Massachusetts RTK - Substance List

ALKYLENE AMINE (CAS TSN 125438 - 5225P)

Methoxypropylamine, 3- (CAS 5332-73-0)

### US - Pennsylvania RTK - Hazardous Substances

ALKYLENE AMINE (CAS TSN 125438 - 5225P)

Methoxypropylamine, 3- (CAS 5332-73-0)

### US - Rhode Island RTK

Not regulated.

### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

### US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

## US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

### US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

### US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

### US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

## 16. Other information, including date of preparation or last revision

Issue date Oct-10-2014

Revision date Jan-06-2015

Version # 2.0

**List of abbreviations**

CAS: Chemical Abstract Service Registration Number  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.  
ACGIH: American Conference of Governmental Industrial Hygienists  
NOEL: No Observed Effect Level  
STEL: Short Term Exposure Limit  
LC50: Lethal Concentration, 50%  
TWA: Time Weighted Average  
BOD: Biochemical Oxygen Demand  
COD: Chemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TLV: Threshold Limit Value  
LD50: Lethal Dose, 50%  
NFPA: National Fire Protection Association

**References:**

No data available

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision Information**

GHS: Classification

**Prepared by**

This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.



## **ATTACHMENT T-4**

### **EQUISTAR CHEMICALS LA PORTE COMPLEX**

### **DOMESTIC SEWAGE SLUDGE MANAGEMENT PLAN**

The Equistar Chemicals La Porte Complex has five Sanipacks on-site for the treatment of sanitary (domestic) wastewater at the facility. Treated sanitary wastewater from the individual Sanipacks is authorized as internal Outfalls 101, 104, 207, 307, and 407 under the facility's TPDES Permit No. WQ0004013000.

Each Sanipack is approximately 30 feet long by 10 feet wide by 11 feet high with a capacity of approximately 24,500 gallons. The volume of the sludge handling section is approximately 440 cubic feet.

When a Sanipack is in operation, domestic sewage sludge is removed generally once per quarter. A vacuum truck is utilized by a TCEQ authorized hauler (such as Texas Outhouse, registration no. 22739) to remove and transport the sludge to a TCEQ permitted treatment facility (such as the Gulf Coast Authority Washburn Tunnel Facility, TPDES Permit No. WQ0001740000). A shipping manifest provides a tracking mechanism for the shipment and quantity shipped. Based on the quantity, the dry weight of each shipment can be calculated.

**Table 3. Wastewater Sources and Flows by Outfall**

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1,2] and Percent of Production
001		Process Wastewater	1.624	62.5%	40 CFR 414, Subpart D (100%)
		AB-III Process Wastewater	0.150		
		AB-III Process Washdown	0.233		
		AB-III Fly-Knife Water	0.080		
		Q1 Process Wastewater	0.090		
		Q1 Process Washdown	0.233		
		LB-1 Process Wastewaters	0.578		
		Stormwater [3][4]	0.260		
		Utility Wastewater	0.965	37.1%	N/A
		Tempered and Chilled Water	0.468		
		RO Unit	0.250		
		AB-III Cooling Tower	0.052		
		Q1 Cooling Tower	0.052		
		LB-1 Cooling Tower	0.052		
		Boiler Blowdown	0.050		
		Fire Water	0.040		
		Miscellaneous (Eye Wash Stations, Lab)	0.001		
	101	Sanitary Wastewater (Sanipack 101)	0.010	0.4%	
	Outfall 001 Total		2.60	100%	
003		Same wastewaters as Outfall 001	Intermittent and variable	N/A	40 CFR 414, Subpart D
004		Process Wastewater	0.63	31.5%	40 CFR 414, Subpart F (100%)
		Process Condensate Blowdown	0.58		
		Spent Caustic Oxidation	0.05		
		Stormwater and Miscellaneous Flows [3][4]	Varies		
		Utility Wastewater	0.86	43.0%	
		Olefins Cooling Tower	0.86		
		Wash Water, Fire Water, Service Water	Varies		
		RO and Demineralization Blowdown, Regeneration, Neutralization	Varies		
		Miscellaneous	Varies		
		Other Non-process Wastewaters [5][6]	0.50	25.0%	
	104	Sanitary Wastewater	0.01	0.5%	
	Outfall 004 Total [7]		2.00	100%	N/A
005	105	Miscellaneous utility wastewaters, groundwater infiltration, de minimis spill clean-up waer, Decene Terminal wastewaters	Intermittent and variable	N/A	
		Stormwater [4]			
		Utility Wastewater			
		Sanitary Wastewater (via Outfall 104)			
006		Stormwater, utility wastewater, de minimis spill clean-up water	Intermittent and variable	N/A	
007		Process Wastewater	0.643	40.2%	40 CFR 414, Subpart D (PAO) (11.7%)
		AA Process	0.024		
		VAM Process	0.346		
		PAO Sumps and Catch Basin	0.058		
		Tank Farm Acid Scrubbers	0.041		
		Unit Storm Water Sewers (VAM, AA, PAO) [3][4]	0.161		
		Chemical Loading Sump	0.013	21.6%	40 CFR 414, Subpart F (AA, VAM) (88.3%)
		Utility Wastewater	0.346		
		AA Cooling Tower Blowdown	0.204		
		VAM Cooling Tower Blowdown	0.142		
		Other Non-process Wastewaters [5]	0.600	37.5%	
		Sanitary Wastewater	0.011	0.7%	N/A
	207	PAO Sanipack	0.0036		
	307	Acetyls Admin Sanipack	0.0036		
	407	Chemical Loading Sanipack	0.0036		
Outfall 007 Total [7]		1.60	100%		
008		Stormwater, Decanted Water from Biosolids (from Landfarm)	Intermittent and variable	N/A	
009		Stormwater [4], utility wastewaters from unit storm water sewers (VAM, AA, PAO)	Intermittent and variable	N/A	
010	Olefins Cooling Tower (current permit)		0.860	100%	
	Option 1 - all Olefins Unit wastewater (Outfall 004)		2.000		
	Option 2 - Outfalls 004 and 005 wastewaters		2.000		
	Option 3 - Outfalls 004, 005, and 007 wastewaters		3.600		
Notes					
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins				
[2]	40 CFR 414, Subpart F - Organic Chemicals, Plastics, and Synthetic Fibers, Commodity Organic Chemicals				
[3]	Stormwater that is potentially contaminated.				
[4]	Construction stormwater included in flows.				
[5]	Non-process wastewaters such as hydrostatic test water, fire system test water, service water, potable water, demineralized water, steam condensate, de minimis spill clean-up water, raw water, air conditioner condensate, water decanted from biosolids, and commissioning wastewaters.				
[6]	Includes laboratory wastewater.				
[7]	Includes amendment request to increase flow limit.				
N/A	Not applicable				

## Leah Whallon

---

**From:** Peters, Andrea R <andrea.peters@lyondellbasell.com>  
**Sent:** Monday, April 21, 2025 12:46 PM  
**To:** Leah Whallon  
**Cc:** Dianna Kocurek (dianna@tkee.com)  
**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

I approve, thank you.

Please use P.O. Drawer D, Deer Park, Texas 77536.



**Andrea Peters**  
Environmental Engineer  
[andrea.peters@lyb.com](mailto:andrea.peters@lyb.com)  
O: 713 767 5704  
C: 281 236 6476

**LyondellBasell (LYB)**  
1515 Miller Cut-Off Road  
La Porte, TX 77571  
[www.lyondellbasell.com](http://www.lyondellbasell.com)

---

**From:** Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>  
**Sent:** Monday, April 21, 2025 11:23 AM  
**To:** Peters, Andrea R <andrea.peters@lyondellbasell.com>  
**Cc:** Dianna Kocurek (dianna@tkee.com) <dianna@tkee.com>  
**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.  
Thank you, Andra.

No, the first sentence would be simplified to read:

“Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D, Deer Park, Texas 77536, which own the Equistar Chemicals La Porte Complex, have applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004013000 (EPA I.D. No. TX0119792) to authorize the following proposed amendments:...”

The language in the NORI is generally intended to use only a simplified description of the facility, while more details can be included in the second notice (NAPD) after the technical review and draft permit are completed.

I'd also like to clarify the mailing address you used in the revision. Both the application submitted and previous permit have the mailing address of P.O. Drawer D, Deer Park, Texas 77536. The Strang Road address in La Porte is not referenced in the application. If the applicants would like to change their mailing address, and to use the Strang Road address in the notices, we will also need updated core data forms for each customer with this address listed in Section II, Item 15.

Please let me know if you have any questions.

Thanks,



**Leah Whallon**

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

[leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov)

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---

**From:** Peters, Andrea R <[andrea.peters@lyondellbasell.com](mailto:andrea.peters@lyondellbasell.com)>

**Sent:** Monday, April 21, 2025 11:09 AM

**To:** Leah Whallon <[Leah.Whallon@Tceq.Texas.Gov](mailto:Leah.Whallon@Tceq.Texas.Gov)>

**Cc:** Dianna Kocurek ([dianna@tkee.com](mailto:dianna@tkee.com)) <[dianna@tkee.com](mailto:dianna@tkee.com)>; Peters, Andrea R <[Andrea.Peters@lyondellbasell.com](mailto:Andrea.Peters@lyondellbasell.com)>

**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

I apologize, it looks like my last email did not send.

To make sure I understand correctly, would it read as the following:

APPLICATION. Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, 10885 Strang Rd, La Porte, Texas 77571, own a facility that manufactures ethylene, propylene, polyethylene, and acetyls (acetic acid and vinyl acetate monomer). INEOS, a co-located facility, manufactures polyalphaolefins. [Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D, Deer Park, Texas 77536, which own the Equistar Chemicals La Porte Complex, have applied](#) to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004013000 (EPA I.D. No. TX0119792) to authorize the following proposed amendments: include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010; include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007; increase daily average flow limit to 2.0 MGD for Outfall 004; increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007; add wastewater sources to several outfalls; remove daily average and daily maximum mass limits for aluminum from Outfall 001; remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001; remove daily maximum concentration limits for nonylphenol from Outfall 003; remove daily average concentration limits for aluminum

and zinc for Outfall 003; remove daily average and daily maximum concentration limits for cyanide from Outfall 005; remove daily average and daily maximum temperature limits for Outfall 007; decrease or remove the daily average limit for dissolved oxygen from Outfall 007; remove daily average and daily maximum mass limits for ammonia from Outfall 007; remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008; change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007; and authorize ultraviolet disinfection of domestic wastewaters. The facility is located at 1515 Miller Cut Off Road, near the city of La Porte, in Harris County, Texas 77571. The discharge route is from the plant site via Outfalls 001, 003, 004, 005, 006, 007, 008, and 009 to an unnamed ditch (tidal), thence to San Jacinto Bay; and via Outfall 010 directly to San Jacinto Bay. TCEQ received this application on March 20, 2025. The permit application will be available for viewing and copying at La Porte Branch Library, 600 South Broadway Street, La Porte, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.061592,29.711737&level=18>

Thank you,



**Andrea Peters**

Environmental Engineer

[andrea.peters@lyb.com](mailto:andrea.peters@lyb.com)

O: 713 767 5704

C: 281 236 6476

**LyondellBasell (LYB)**

1515 Miller Cut-Off Road

La Porte, TX 77571

[www.lyondellbasell.com](http://www.lyondellbasell.com)

---

**From:** Leah Whallon <[Leah.Whallon@Tceq.Texas.Gov](mailto:Leah.Whallon@Tceq.Texas.Gov)>

**Sent:** Monday, April 21, 2025 10:31 AM

**To:** Peters, Andrea R <[andrea.peters@lyondellbasell.com](mailto:andrea.peters@lyondellbasell.com)>

**Cc:** Dianna Kocurek ([dianna@tkee.com](mailto:dianna@tkee.com)) <[dianna@tkee.com](mailto:dianna@tkee.com)>

**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

You don't often get email from [leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov). [Learn why this is important](#)

This email originated outside LyondellBasell. Do not click on links or open attachments unless you recognize the sender.  
Good Morning,

I am following up on the email below regarding the final language for the NORI. Please confirm as soon as possible so the final notice documents can be issued. Please let me know if you have any questions.

Thank you,



**Leah Whallon**

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

[leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov)

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[www.tceq.texas.gov/customersurvey](http://www.tceq.texas.gov/customersurvey)

---

**From:** Leah Whallon

**Sent:** Wednesday, April 16, 2025 10:02 AM

**To:** Peters, Andrea R <[andrea.peters@lyondellbasell.com](mailto:andrea.peters@lyondellbasell.com)>

**Cc:** Dianna Kocurek ([dianna@tkee.com](mailto:dianna@tkee.com)) <[dianna@tkee.com](mailto:dianna@tkee.com)>

**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

Thank you, Andrea.

I want to confirm the only change made to the English NORI is in the first sentence business description? I used what was on the current permit in the draft NORI, but to simplify and keep within the required formatting, I think it would be appropriate to rephrase this sentence to read:

“Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D, Deer Park, Texas 77536, which own the Equistar Chemicals La Porte Complex, have applied..”

Please let me know if there is anything else that needs to be updated before issuing the notices for publication.

Thanks,



**Leah Whallon**

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

[leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov)

How is our customer service? Fill out our online customer satisfaction survey at  
[www.tceq.texas.gov/customersurvey](http://www.tceq.texas.gov/customersurvey)

---

**From:** Peters, Andrea R <[andrea.peters@lyondellbasell.com](mailto:andrea.peters@lyondellbasell.com)>

**Sent:** Thursday, April 10, 2025 3:31 PM

**To:** Leah Whallon <[Leah.Whallon@Tceq.Texas.Gov](mailto:Leah.Whallon@Tceq.Texas.Gov)>

**Cc:** Dianna Kocurek ([dianna@tkee.com](mailto:dianna@tkee.com)) <[dianna@tkee.com](mailto:dianna@tkee.com)>

**Subject:** RE: Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

Good Afternoon,

Please see the responses below in blue.

1. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

Revised portion:

APPLICATION. Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, 10885 Strang Rd, La Porte, Texas 77571, own a facility that manufactures ethylene, propylene, polyethylene, and acetyls (acetic acid and vinyl acetate monomer). INEOS, a co-located facility, manufactures polyalphaolefins. Equistar Chemicals La Porte Complex has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004013000 (EPA I.D. No. TX0119792) to authorize the following proposed amendments: include options for Outfall 010 to include flows from Outfall 004, 005, and/or 007 and remove chlorine limits from Outfall 010; include wastewater from the adjacent syngas facility in Outfall 004 and Outfall 007; increase daily average flow limit to 2.0 MGD for Outfall 004; increase daily average flow limit to 1.6 MGD and daily maximum flow limit to 2.0 MGD for Outfall 007; add wastewater sources to several outfalls; remove daily average and daily maximum mass limits for aluminum from Outfall 001; remove daily average and daily maximum mass and concentration limits for nonylphenol from Outfall 001; remove daily maximum concentration limits for nonylphenol from Outfall 003; remove daily average concentration limits for aluminum and zinc for Outfall 003; remove daily average and daily maximum concentration limits for cyanide from Outfall 005; remove daily average and daily maximum temperature limits for Outfall 007; decrease or remove the daily average limit for dissolved oxygen from Outfall 007; remove daily average and daily maximum mass limits for ammonia from Outfall 007; remove daily maximum concentration limits for aluminum and cyanide and monitoring for zinc from Outfall 008; change frequency of monitoring for hexachlorobenzene to annual for Outfalls 001, 004, and 007; and authorize ultraviolet disinfection of domestic wastewaters. The facility is located at 1515 Miller Cut Off Road, near the city of La Porte, in Harris County, Texas 77571. The discharge route is from the plant site via Outfalls 001, 003, 004, 005, 006, 007, 008, and 009 to an unnamed ditch (tidal), thence to San Jacinto Bay; and via Outfall 010 directly to San Jacinto Bay. TCEQ received this application on March 20, 2025. The permit application will be available for viewing and copying at La Porte Branch Library, 600 South Broadway Street, La Porte, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.061592,29.711737&level=18>

2. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Please see attached.

Please let me know if you have any questions or need additional information.

Thank you,



**Andrea Peters**

Environmental Engineer

[andrea.peters@lyb.com](mailto:andrea.peters@lyb.com)

O: 713 767 5704

C: 281 236 6476

**LyondellBasell (LYB)**

1515 Miller Cut-Off Road

La Porte, TX 77571

[www.lyondellbasell.com](http://www.lyondellbasell.com)

---

**From:** Leah Whallon <[Leah.Whallon@Tceq.Texas.Gov](mailto:Leah.Whallon@Tceq.Texas.Gov)>

**Sent:** Thursday, March 27, 2025 4:05 PM

**To:** Peters, Andrea R <[andrea.peters@lyondellbasell.com](mailto:andrea.peters@lyondellbasell.com)>

**Subject:** Application to Amend Permit No. WQ0004013000; Equistar Chemicals, LP and LyondellBasell Acetyls, LLC; Equistar Chemicals La Porte Complex

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Good Afternoon,

Please see the attached Notice of Deficiency letter dated March 27, 2025 requesting additional information needed to declare the application administratively complete. Please send the complete response by April 10, 2025.

Please let me know if you have any questions.

Thank you,



**Leah Whallon**

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

[leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov)

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# Comisión de Calidad Ambiental del Estado de Texas



## AVISO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA PERMISO MODIFICACION

PERMISO NO. WQ000\_\_\_\_\_

**SOLICITUD.** Equistar Chemicals, LP and LyondellBasell Acetyls, LLC, P.O. Drawer D. Deer Park, Texas 77536 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0004013000 (EPA I.D. No. TX0119792) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar Las siguientes enmiendas propuestas: incluir opciones para el Emisario 010 para incluir los flujos de los Emisarios 004, 005 y/o 007 y eliminar los límites de cloro del Emisario 010; incluir aguas residuales de la instalación de syngas adyacente en los Emisarios 004 y 007; aumentar el límite de flujo promedio diario a 2.0 MGD para el Emisario 004; aumentar el límite de flujo promedio diario a 1.6 MGD y el límite de flujo máximo diario a 2.0 MGD para el Emisario 007; agregar fuentes de aguas residuales a varios emisarios; eliminar los límites de masa promedio diario y máximo de aluminio del Emisario 001; eliminar los límites de masa y concentración promedio diario y máximo de nonilfenol del Emisario 001; eliminar los límites de concentración máxima diaria de nonilfenol del Emisario 003; eliminar los límites de concentración promedio diaria de aluminio y zinc del Emisario 003; eliminar los límites de concentración promedio diaria y máxima de cianuro del Emisario 005; eliminar los límites de temperatura promedio diaria y máxima del Emisario 007; disminuir o eliminar el límite promedio diario de oxígeno disuelto del Emisario 007; eliminar los límites de masa promedio diaria y máxima de amoníaco del Emisario 007; eliminar los límites de concentración máxima diaria de aluminio y cianuro y el monitoreo de zinc del Emisario 008; cambiar la frecuencia de monitoreo de hexaclorobenceno a anual para los Emisarios 001, 004 y 007; y autorizar la desinfección ultravioleta de aguas residuales domésticas. La planta está ubicada 1515 Miller Cut Off Road, near the city of La Porte, en el Condado de in Harris County, Texas 77571. La ruta de descarga es del sitio de la planta A través de los emisarios 001, 003, 004, 005, 006, 007, 008 y 009 hacia un canal sin nombre (marea), y luego hacia la Bahía de San Jacinto; y a través del emisario 010 directamente hacia la Bahía de San Jacinto. La TCEQ recibió esta solicitud el día 20 de marzo de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en La Porte Branch Library, 600 South Broadway Street, La Porte, en el condado de Harris, Texas, antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.061592,29.711737&level=18>

*Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical area, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does not meet the above description or a renewal without such a major amendment, do not include the sentence:*

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

**COMENTARIO PUBLICO / REUNION PUBLICA.** Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

**OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.** Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS:** su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público

en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

**LISTA DE CORREO.** Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

**CONTACTOS E INFORMACIÓN A LA AGENCIA.** Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Equistar Chemicals, LP y LyondellBasell Acetyls, LLC a la dirección indicada arriba o llamando a Andrea Peters al 713-767-5704.

Fecha de emisión \_\_\_\_\_ *[Date notice issued]*