



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.

INEOS USA LLC (CN602817884) operates the INEOS North America La Porte Plant (RN100229905), a polyethylene and polypropylene manufacturing facility. The facility is located at 1230 Independence Parkway South, La Porte, Harris County, Texas 77571.

The application is to renew TPDES Permit No. WQ0000544000 to discharge a maximum average of 3.98 million gallons per day of process wastewater, utility and railcar wash water, and domestic wastewater via Outfall 001. Outfalls 002 and 004 discharge stormwater and utility wastewater. Outfall 005 discharges stormwater. All of the outfalls discharge into Phillips Ditch, which flows to Santa Anna Bayou, and then to the Houston Ship Channel.

Wastewater treatment processes for Outfall 001 include neutralization, metal/solids removal, and clarification. Domestic wastewater is treated biologically and disinfected. Solids removal is used in the Outfall 002, 004, and 005 systems.

Discharges from the outfalls are expected to contain total organic carbon, oil and grease, suspended solids, and metals. Other potential pollutants that may be in the discharge are included in Worksheet 2 of the TPDES application.

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.

INEOS USA LLC (CN602817884) opera la INEOS North America La Porte Plant (RN100229905), una instalación de fabricación de polietileno y polipropileno. La instalación está ubicada en 1230 Independence Parkway South, La Porte, Condado de Harris, Texas 77571.

La solicitud es para la renovación del permiso TPDES no. WQ0000544000 para descargar un máximo medio de 3.98 millones de galones al día de aguas residuales de proceso, agua residual de servicios públicos y agua de lavado de vagones de ferrocarril, y aguas residuales domésticas a través del Outfall 001. Los Outfalls 002 y 004 descargan aguas pluviales y aguas de servicios. El Outfall 005 descarga aguas pluviales. Todos los Outfalls descargan en la zanja Phillips, que fluye hacia el arroyo Santa Anna y, a continuación, hacia el canal de navegación de Houston.

Los procesos de tratamiento de aguas residuales del Outfall 001 incluyen la neutralización, la eliminación de metales y sólidos y la clarificación. Las aguas residuales domésticas se tratan biológicamente y se desinfectan. La eliminación de sólidos se utiliza en los sistemas de los Outfalls 002, 004 y 005.

Se espera que los vertidos de los Outfalls contengan carbono orgánico total, aceites y grasas, sólidos en suspensión y metales. Otros contaminantes potenciales que pueden estar presentes en el vertido se incluyen en la Worksheet 2 de la solicitud.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT RENEWAL

PERMIT NO. WQ0000544000

APPLICATION. INEOS USA LLC, 1230 Independence Parkway South, La Porte, Texas 77571, which owns a polyethylene and polypropylene manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000544000 (EPA I.D. No. TX0006033) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 3,980,000 gallons per day via Outfall 001, the discharge of treated wastewater and stormwater at an intermittent and flow-variable rate via Outfall 002, the discharge of treated wastewater and stormwater at a flow-variable rate via Outfall 004, and the discharge of stormwater at an intermittent and flow-variable rate via Outfall 005. The facility is located at 1230 Independence Parkway South, near the city of La Porte, in Harris County, Texas 77571. The discharge route is from the plant site to Phillips Ditch; thence to Santa Anna Bayou; thence to Houston Ship Channel/San Jacinto River Tidal. TCEQ received this application on April 24, 2025. The permit application will be available for viewing and copying at Deer Park Public Library, 3009 Center Street, Deer Park, 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=-95.085555,29.720555&level=18>

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.**

TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

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. 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. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from INEOS USA LLC at the address stated above or by calling Mr. William E. Sloane, Site Manager, at 713-307-3002.

Issuance Date: June 17, 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 RENOVACION

PERMISO NO. WQ0000544000

SOLICITUD. INEOS USA LLC, 1230 Independence Parkway South, La Porte, Texas 77571, posee y opera una planta de fabricación de polietileno y polipropileno, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No.

WQ0000544000 (EPA I.D. No. TX0006033) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) autorizar la descarga de aguas residuales tratadas y aguas pluviales en un volumen que no exceda un caudal promedio diario de 3,980,000 galones por día a través de la Salida 001, la descarga de aguas residuales tratadas y aguas pluviales a una tasa intermitente y variable de flujo a través de la Salida 002, la descarga de aguas residuales tratadas y aguas pluviales a una tasa variable de flujo a través de la Salida 004, y la descarga de aguas pluviales a una tasa intermitente y variable de flujo a través de la Salida 005. La instalación está ubicada en 1230 Independence Parkway South, cerca de la ciudad de La Porte, en el condado de Harris, Texas 77571. La ruta de descarga va desde el sitio de la planta hasta Phillips Ditch; de allí a Santa Anna Bayou; de allí al Canal de Navegación de Houston/Río San Jacinto Tidal. La TCEQ recibió esta solicitud el 24 de Abril de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca Pública de Deer Park, 3009 Center Street, Deer Park, 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=-95.085555,29.720555&level=18>

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.** Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 INEOS USA LLC a la dirección indicada arriba o llamando a William E. Sloane, Gerente de la Planta, al 713-307-3002.

Fecha de emisión: 17 de junio de 2025

Abesha Michael

From: Lozano, Marisela <marisela.lozano@ineos.com>
Sent: Wednesday, May 14, 2025 1:29 PM
To: Abesha Michael
Subject: RE: Application to Renew Permit No. WQ0000544000 - Notice of Deficiency Letter
Attachments: Industrial Discharge Renewal Spanish NORI 050525.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon,

I am responding to the NOD letter received via email on April 29, 2025.

1. Below are a few edits needed to the public notice:
 - a. The public library name is Deer Park Public Library. Please remove "Harris" from the name.
 - b. The title for William E. Sloane is Site Manager. Please remove "Environmental Specialist".
2. I attached the public notice in Spanish.

Please let me know if you need anything else.

Thank you,



From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Tuesday, April 29, 2025 1:32 PM
To: Lozano, Marisela <marisela.lozano@ineos.com>
Subject: Application to Renew Permit No. WQ0000544000 - Notice of Deficiency Letter

This Message Is From an External Sender

If in doubt, throw it out.

Report Suspicious

Dear Ms. Lozano:

The attached Notice of Deficiency letter sent on April 29, 2025, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by May 13, 2025.

Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912
Email: abesha.michael@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

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 RENOVACION

PERMISO NO. WQ000

SOLICITUD. *[INEOS USA LLC, 1230 Independence Parkway South, La Porte, Texas 77571, posee y opera una planta de fabricación de polietileno y polipropileno,]* ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No.

WQ0000544000 (EPA I.D. No. TX0006033) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de *3,980,000* galones por día. La planta está ubicada en *1230 Independence Parkway South* en el Condado de *Harris*, Texas 77571. La ruta de descarga es del sitio de la planta a *Phillips Ditch; de ahí a Santa Anna Bayou; de ahí a Houston Ship Channel/San Jacinto River Tidal*. La TCEQ recibió esta solicitud el *24 de Abril de 2025*. La solicitud para el permiso estará disponible para leerla y copiarla en la *Biblioteca Pública de Deer Park, 3009 Center Street, Deer Park, 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>.

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<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.085555,29.720555&level=18>

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.**

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.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 *INEOS USA LLC* a la dirección indicada arriba o llamando a *William E. Sloane, Gerente de la Planta*, al 713-307-3002.

Fecha de emisión: *[Date notice issued]*

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

April 24, 2025

Re: Confirmation of Submission of the Renewal without changes for Industrial Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Renewal without changes for the Industrial Wastewater authorization.

ER Account Number: ER102986
Application Reference Number: 775337
Authorization Number: WQ0000544000
Site Name: Ineos Polyethylene North America La Porte Plant
Regulated Entity: RN100229905 - Ineos Polyethylene North America La Porte Plant
Customer(s): CN602817884 - Ineos USA 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 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

WQ0000544000

Site Information (Regulated Entity)

What is the name of the site to be authorized?	INEOS POLYETHYLENE NORTH AMERICA LA PORTE PLANT
Does the site have a physical address?	Yes
Physical Address	
Number and Street	1230 INDEPENDENCE PKWY S
City	LA PORTE
State	TX
ZIP	77571
County	HARRIS
Latitude (N) (##.#####)	29.720555
Longitude (W) (-###.#####)	-95.085555
Primary SIC Code	
Secondary SIC Code	2821
Primary NAICS Code	325211
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100229905
What is the name of the Regulated Entity (RE)?	INEOS POLYETHYLENE NORTH AMERICA LA PORTE PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	1230 INDEPENDENCE PKWY S
City	LA PORTE
State	TX
ZIP	77571
County	HARRIS
Latitude (N) (##.#####)	29.720555
Longitude (W) (-###.#####)	-95.085555
Facility NAICS Code	

What is the primary business of this entity?

A POLYOLEFIN AND INORGANIC CHEMICALS
MANUFACTURING

INEOS U-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?

Owner

What is the applicant's Customer Number (CN)?

CN602817884

Type of Customer

Corporation

Full legal name of the applicant:

Legal Name

INEOS USA LLC

Texas SOS Filing Number

800472776

Federal Tax ID

201981933

State Franchise Tax ID

12019819338

State Sales Tax ID

Local Tax ID

DUNS Number

623804809

Number of Employees

101-250

Independently Owned and Operated?

Yes

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

Responsible Authority Contact

Organization Name

INEOS USA LLC

Prefix

First

WILLIAM

Middle

E

Last

SLOANE

Suffix

Credentials

Title

SITE MANAGER

Responsible Authority Mailing Address

Enter new address or copy one from list:

Site Physical Address

Address Type

Domestic

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

1230 INDEPENDENCE PKWY S

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

City

LA PORTE

State

TX

ZIP

77571

Phone (###-###-####)	7133073002
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	BILL.SLOANE@INEOS.COM

Billing Contact

Responsible contact for receiving billing statements:	
Select the permittee that is responsible for payment of the annual fee.	CN602817884, INEOS USA LLC
Organization Name	INEOS USA LLC
Prefix	MS
First	MARISELA
Middle	
Last	LOZANO
Suffix	
Credentials	
Title	ENVIRONMENTAL SPECIALIST
Enter new address or copy one from list:	Site Physical Address
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1230 INDEPENDENCE PKWY S
Routing (such as Mail Code, Dept., or Attn:)	
City	LA PORTE
State	TX
ZIP	77571
Phone (###-###-####)	7133073173
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	MARISELA.LOZANO@INEOS.COM

Application Contact

Person TCEQ should contact for questions about this application:	
Same as another contact?	Billing Contact
Organization Name	INEOS USA LLC

Prefix	MS
First	MARISELA
Middle	
Last	LOZANO
Suffix	
Credentials	
Title	ENVIRONMENTAL SPECIALIST
Enter new address or copy one from list:	Site Physical Address
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1230 INDEPENDENCE PKWY S
Routing (such as Mail Code, Dept., or Attn:)	
City	LA PORTE
State	TX
ZIP	77571
Phone (###-###-####)	7133073173
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	MARISELA.LOZANO@INEOS.COM

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	Application Contact
Organization Name	INEOS USA LLC
Prefix	MS
First	MARISELA
Middle	
Last	LOZANO
Suffix	
Credentials	
Title	ENVIRONMENTAL SPECIALIST
Enter new address or copy one from list:	Site Physical Address
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1230 INDEPENDENCE PKWY S

Routing (such as Mail Code, Dept., or Attn:)	
City	LA PORTE
State	TX
ZIP	77571
Phone (###-###-####)	7133073173
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	MARISELA.LOZANO@INEOS.COM

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	
Organization Name	INEOS USA LLC
Prefix	
First	WILLIAM
Middle	E
Last	SLOANE
Suffix	
Credentials	
Title	SITE MANAGER
Enter new address or copy one from list:	Site Physical Address

Mailing Address:

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1230 INDEPENDENCE PKWY S
Routing (such as Mail Code, Dept., or Attn:)	
City	LA PORTE
State	TX
ZIP	77571
Phone (###-###-####)	7133073002
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	BILL.SLOANE@INEOS.COM

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Technical Contact
2) Organization Name	INEOS USA LLC
3) Prefix	MS
4) First	MARISELA
5) Middle	
6) Last	LOZANO
7) Suffix	
8) Credentials	
9) Title	ENVIRONMENTAL SPECIALIST
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)	1230 INDEPENDENCE PKWY S
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 (###-###-####)	7133073173
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	MARISELA.LOZANO@INEOS.COM

Section 2# Permit Contact

Permit Contact#: 2

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	
2) Organization Name	INEOS USA LLC
3) Prefix	
4) First	CHOCK
5) Middle	

6) Last	GANAPATHY
7) Suffix	
8) Credentials	
9) Title	SSHE 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)	1230 INDEPENDENCE PKWY S
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 (###-###-####)	7133073494
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	CHOCK.GANAPATHY@INEOS.COM

Owner Information

Owner of Treatment Facility

1) Prefix	
2) First and Last Name	
3) Organization Name	INEOS USA LLC
4) Mailing Address	1230 Independence Parkway South
5) City	La Porte
6) State	TX
7) Zip Code	77571
8) Phone (###-###-####)	7133073002
9) Extension	
10) Email	BILL.SLOANE@INEOS.COM
11) What is ownership of the treatment facility?	Private

Owner of Land (where treatment facility is or will be)

12) Prefix	
13) First and Last Name	
14) Organization Name	INEOS USA LLC
15) Mailing Address	1230 Independence Parkway South

16) City	La Porte
17) State	TX
18) Zip Code	77571
19) Phone (###-###-####)	7133073002
20) Extension	
21) Email	BILL.SLOANE@INEOS.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:	10/26/2025
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?	Renewal without changes
5) Current Authorization type:	Industrial Wastewater
5.1) What is your EPA facility classification?	Major
5.1.1) Select the applicable fee	Renewal - \$2,015
6) What is the classification for your authorization?	TPDES
6.1) What is the EPA Identification Number?	TX0006033
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 existing permit correct?	Yes
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	MARISELA LOZANO
3) Credential	
4) Title	ENVIRONMENTAL SPECIALIST
5) Organization Name	INEOS USA LLC

6) Mailing Address	1230 INDEPENDENCE PKWY S
7) Address Line 2	
8) City	LA PORTE
9) State	TX
10) Zip Code	77571
11) Phone (###-###-####)	7133073173
12) Extension	
13) Fax (###-###-####)	
14) Email	MARISELA.LOZANO@INEOS.COM
Contact person to be listed in the Notices	
15) Prefix	MR
16) First and Last Name	WILLIAM E. SLOANE
17) Credential	
18) Title	SITE MANAGER
19) Organization Name	INEOS USA LLC
20) Phone (###-###-####)	7133073002
21) Fax (###-###-####)	
22) Email	BILL.SLOANE@INEOS.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?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
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	DEER PARK PUBLIC LIBRARY
3) Location within the building	
4) Physical Address of Building	3009 CENTER STREET
5) City	DEER PARK
6) Contact Name	

7) Phone (###-###-####)	2814787208
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 WQ0000544000 2025.pdf
Hash	7CFB0E5F4ECD6695ADF001721B271546C722E60458CCEE53D5600490FC2D014A
MIME-Type	application/pdf

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)	
[File Properties]	
File Name	SPIF_Attachment SPIF-1 WQ0000544000 Supplemental Permit Information Form 2025.pdf
Hash	6603ACD77BFD94E551123A56894074F79CAAAC555E332E7FFB349D55370BE8D4
MIME-Type	application/pdf
[File Properties]	
File Name	SPIF_Attachment SPIF-2 WQ0000544000 INEOS La Porte USGS Map.pdf
Hash	9875CAD82277AE59AED51E29D5EB97B1D22990001C48F1A492F43278C38B39A9
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 WQ0000544000 INEOS La Porte USGS Map.pdf
Hash	33E0F459EB66873F491BAF8E71ACD2127DD5BC6197589ADB1E5797EA44035F56
MIME-Type	application/pdf

2) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
2.1) I confirm that Worksheet 2.0 (Pollutant Analyses Requirements) is complete and included in the Technical Attachment.	Yes
2.2) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment.	Yes
2.3) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment?	No
2.4) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment?	No
2.5) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment?	Yes
2.6) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment?	No
2.7) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment?	No
2.8) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment?	No
2.9) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment?	No
2.10) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment?	No
2.11) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment?	No
2.12) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment?	No
2.13) Technical Attachment	
[File Properties]	
File Name	TECH_WQ0000544000 INEOS La Porte Technical Report 2025.pdf
Hash	B10FF56A0EB3777385646B977408A4B6E92D033A68F1A48CB2D40E63EB13C5F9
MIME-Type	application/pdf
3) Flow Diagram	
[File Properties]	
File Name	FLDIA_WQ0000544000 Figure 1 Wastewater Flow Diagram 2025.pdf
Hash	958637A136FF47105037CA53C8FA6CE5A524B122D821D68924705EE5DD3BA6CB
MIME-Type	application/pdf
4) Site Drawing	
[File Properties]	

File Name	SITEDR_Attachment T-2 Wq0000544000 INEOS La Porte Site Diagram.pdf
Hash	3BA9C0CA33CA420561FCB28A54C68EF6A95CFACC64C783BA40E4284104EE5DCD
MIME-Type	application/pdf
5) Design Calculations	
[File Properties]	
File Name	DES_CAL_WQ0000544000 Table 1 Outfall Wastewaters 2025.pdf
Hash	82A8FF937A55EB12D2C55BE2ECF1E0181EA2DEB008BDB390F9254190BCA71F51
MIME-Type	application/pdf
6) Solids Management Plan	
7) Water Balance	
[File Properties]	
File Name	WB_WQ0000544000 Figure 1 Wastewater Flow Diagram 2025.pdf
Hash	958637A136FF47105037CA53C8FA6CE5A524B122D821D68924705EE5DD3BA6CB
MIME-Type	application/pdf
8) Other Attachments	
[File Properties]	
File Name	OTHER_WQ0000544000 INEOS La Porte TPDES Application Table of Contents.pdf
Hash	F954CB150034848F0C98CB6496E188FCC95B91D824D8A9BA25A6D57B8FE52168
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_Attachment T-1 WQ0000544000 INEOS La Porte Facility Description 2025.pdf
Hash	4E00324C96E7D9322A54A719E1D493F82FDAB853375911D1848407334753188E
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_Attachment T-3 WQ0000544000 INEOS La Porte Treatment Chemicals Table 2025.pdf
Hash	3F085F98E73167A6162768162A72AE AFC22661BA1EBA15690FDE371CEA2A8D25
MIME-Type	application/pdf
[File Properties]	

File Name	OTHER_Attachment T-3 WQ0000544000 INEOS La Porte Treatment SDSs 2025.pdf
Hash	9E1DFE6C4B6A5AB566D6B08A71C1B27598F115C7C52F8F83EE60268D243D7C31
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 William Sloane, the owner of the STEERS account ER102986.
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 WQ0000544000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: William Sloane OWNER

Customer Number:	CN602817884
Legal Name:	INEOS USA LLC
Account Number:	ER102986
Signature IP Address:	131.119.0.108
Signature Date:	2025-04-24
Signature Hash:	EBBE6897499F7C6CABD02911961756B7013A0F8936A60CE6BA842C25B5A9B2CC
Form Hash Code at time of Signature:	3AB9ABC73C850BBD58F985AF5310CD5966528EA3D77D4AFA0476556F5FBCA591

Fee Payment

Transaction by:	The application fee payment transaction was made by ER102986/William Sloane
Paid by:	The application fee was paid by WILLIAM SLOANE
Fee Amount:	\$2000.00
Paid Date:	The application fee was paid on 2025-04-24

Transaction/Voucher number:

The transaction number is 582EA000665299 and the voucher number is 763880

Submission

Reference Number:

The application reference number is 775337

Submitted by:

The application was submitted by ER102986/William Sloane

Submitted Timestamp:

The application was submitted on 2025-04-24 at 13:39:04 CDT

Submitted From:

The application was submitted from IP address 131.119.0.108

Confirmation Number:

The confirmation number is 648749

Steers Version:

The STEERS version is 6.90

Permit Number:

The permit number is WQ0000544000

Additional Information

Application Creator: This account was created by Dianna Kocurek

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/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

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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/cm³ , 10.4 lb/gal

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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

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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

SAFETY DATA SHEET

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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

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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.

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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

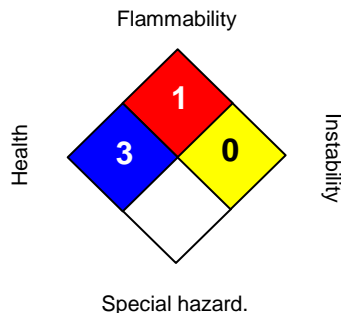
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

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 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 : 10/16/2024

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

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bromide	7647-15-6	0.1 - 1

SAFETY DATA SHEET

NALCO® 3DT396

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. 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

SAFETY DATA SHEET

NALCO® 3DT396

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.
- 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 : Effective exhaust ventilation system. Maintain air concentrations below 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 : 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 : clear light yellow
- Odour : Ammoniacal
- Flash point : > 200 F/ > 93.3 °C
- pH : 3 - 4
- Odour Threshold : no data available

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NALCO® 3DT396

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), 1,010 hPa, (111.7 °C),
Relative vapour density	: no data available
Relative density	: 1.2085,
Density	: 1.2021 - 1.2023 g/cm3
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	: In the event of fire, see Section 5

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NALCO® 3DT396

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 : Suspected of damaging fertility or the unborn child.

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

Components

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NALCO® 3DT396

Acute oral toxicity : Sodium Bromide
LD50 rat: 4,200 mg/kg

Components

Acute dermal toxicity : Sodium Bromide
LD50 rat: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Toxicity

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

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

Biodegradability : Result: Poorly biodegradable

Total Organic Carbon (TOC) : 150,000 mg/l

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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 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

SAFETY DATA SHEET

NALCO® 3DT396

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.

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. Australian Industrial Chemicals Introduction Scheme (AICIS)

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

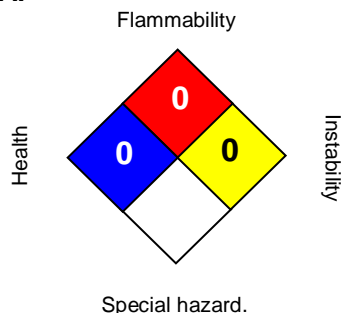
not determined

Section: 16. OTHER INFORMATION

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NALCO® 3DT396

NFPA:



HMIS III:

HEALTH	0*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 10/16/2024
Version Number : 3.0
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 and request access.

3D TRASAR™ 3DT398

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT398

Other means of identification : Not applicable.

Recommended use : COOLING WATER CORROSION INHIBITOR - INORGANIC COMPOUNDS

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 : 06/12/2023

Section: 2. HAZARDS IDENTIFICATION

GHS Classification


Skin corrosion : Category 1

Serious eye damage : 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 : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.

Precautionary Statements : **Prevention:**
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.

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Storage:

Store in a well-ventilated place. Keep container tightly closed.

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: (%)
Modified benzimidazole salt	Proprietary	10 - 30
Organic Sulfonic Acid	Proprietary	10 - 30
Acetic Acid	64-19-7	10 - 30

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.

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- 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. 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 : 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
Acetic Acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m ³	NIOSH REL
		ST	15 ppm 37 mg/m ³	NIOSH REL

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		TWA	10 ppm 25 mg/m ³	OSHA P0
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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:
Wear protective gloves.
Impervious gloves, resistant to chemicals.
Neoprene
Nitrile rubber
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 dark brown

Odour : vinegar-like

Flash point : 98.60 °C, Method: ASTM D 93

pH : < 1.5, (25 °C), Method: ASTM E 70

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -16.50 °C, ASTM D-1177

Initial boiling point and boiling range : 102.0 °C, Method: ASTM D 1120-72

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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Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.108, (25 °C),
Density	: no data available
Water solubility	: Miscible
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: log Pow: 1.89, Method: OECD Test Guideline 117, GLP: Yes, Active Substance
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: 3.77 mm ² /s (25 °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.
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: Carbon oxides nitrogen oxides (NO _x) Sulphur 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	: Causes severe skin burns. May cause allergic skin reaction.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause respiratory tract irritation. May cause nose, throat, and lung irritation.

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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: 4,732 mg/kg

Acute inhalation toxicity : no data available

Acute dermal toxicity : Acute toxicity estimate: 4,970 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): 502 mg/l
Exposure time: 96 hrs
Test substance: Similar Product

NOEC Pimephales promelas (fathead minnow): 360 mg/l
Exposure time: 96 hrs
Test substance: Similar Product

LC50 Rainbow Trout: 480 mg/l
Exposure time: 96 hrs

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Test substance: Similar Product

NOEC Rainbow Trout: 360 mg/l

Exposure time: 96 hrs

Test substance: Similar Product

LC50 Pimephales promelas (fathead minnow): 444 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Pimephales promelas (fathead minnow): 200 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : EC50 Ceriodaphnia dubia: 301 mg/l
Exposure time: 48 hrs

Test substance: Similar Product

LC50 Ceriodaphnia dubia: 369 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

NOEC Ceriodaphnia dubia: 216 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

EC50 Daphnia magna Straus: 400 mg/l

Exposure time: 48 hrs

Test substance: Product

LC50 Ceriodaphnia dubia: 377 mg/l

Exposure time: 48 hrs

Test substance: Product

EC50 Ceriodaphnia dubia: 300 mg/l

Exposure time: 48 hrs

Test substance: Product

Toxicity to algae : NOEC Macrocystis pyrifera (brown algae): 25 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

Test Type: Reproduction

EC50 Macrocystis pyrifera (brown algae): 104 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

Test Type: Reproduction

EC25 / IC25 Macrocystis pyrifera (brown algae): 74.5 mg/l

Exposure time: 48 hrs

Test substance: Similar Product

Test Type: Reproduction

NOEC Macrocystis pyrifera (brown algae): 25 mg/l

Exposure time: 48 hrs

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Test substance: Similar Product
Test Type: Growth

EC50 *Macrocystis pyrifera* (brown algae): 119 mg/l
Exposure time: 48 hrs
Test substance: Similar Product
Test Type: Growth

EC25 / IC25 *Macrocystis pyrifera* (brown algae): 67.6 mg/l
Exposure time: 48 hrs
Test substance: Similar Product
Test Type: Growth

ErC50 *Desmodesmus subspicatus* (green algae): 1,000 mg/l
Exposure time: 48 h
Test Type: Growth inhibition

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC25 / IC25: 66 mg/l
Exposure time: 7 d
Species: *Ceriodaphnia dubia*
Test substance: Similar Product
Test Type: Reproduction

LOEC: 90 mg/l
Exposure time: 7 d
Species: *Ceriodaphnia dubia*
Test substance: Similar Product
Test Type: Reproduction

NOEC: 45 mg/l
Exposure time: 7 d
Species: *Ceriodaphnia dubia*
Test substance: Similar Product
Test Type: Reproduction

Persistence and degradability

Chemical Oxygen Demand (COD): 610,000 mg/l

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

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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) : Organic Sulfonic Acid, Acetic Acid
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 49,978 lbs
RQ Component : Acetic Acid

Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Organic Sulfonic Acid, Acetic Acid
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 49,978 lbs
RQ Component : Acetic Acid

Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Organic Sulfonic Acid, Acetic Acid
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III

Section: 15. REGULATORY INFORMATION

TSCA list : The following substance(s) is/are subject to a Significant New Use Rule: Modified benzimidazole salt

The following substance(s) is/are subject to TSCA 12(b) export notification requirements: Modified benzimidazole salt

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic Acid	64-19-7	5000	49978

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Respiratory or skin sensitisation
Skin corrosion or irritation
Serious eye damage or eye irritation
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.

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 This product is subject under TSCA 5(a) to Significant New Use Restrictions (SNUR).

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

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)

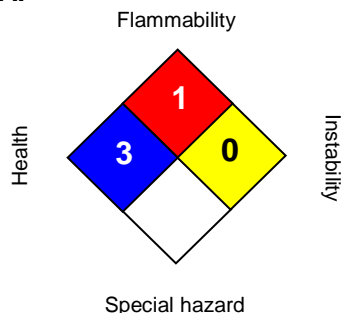
This product contains substance(s) which are not listed on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

Section: 16. OTHER INFORMATION

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NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 06/12/2023
Version Number : 1.8
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 and request access.

SAFETY DATA SHEET

3D TRASAR™ 3DT401

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT401

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 : 09/17/2024

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion : Category 1

Serious eye damage : Category 1

Reproductive toxicity : Category 2

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.
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. 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.
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

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Molybdate Dihydrate	10102-40-6	10 - 30
Sodium Tolyltriazole	64665-57-2	1 - 5
Sodium Hydroxide	1310-73-2	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) Sulphur oxides Oxides of phosphorus

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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: Brass, Stainless Steel 304, Stainless Steel 316L, CPVC (rigid), HDPE (high density polyethylene), LLDPE, Nylon 11, Polypropylene, PTFE, PVC, UHMWPE, EPDM, Kalrez, Neoprene, Nitrile, Viton (R)

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Mild steel, Phenolic

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Molybdate Dihydrate	10102-40-6	TWA (Total dust)	15 mg/m ³ (as Mo)	OSHA Z1
		TWA	5 mg/m ³ (as Mo)	OSHA Z1
		TWA (Inhalable fraction)	10 mg/m ³ (as Mo)	ACGIH
		TWA (Respirable)	3 mg/m ³ (as Mo)	ACGIH

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		fraction)		
		TWA (Respirable fraction)	0.5 mg/m3 (as Mo)	ACGIH
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 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.
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:
Combined particulates, inorganic and acidic gas/vapour, ammonia/amines and organic vapour type

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 : yellow

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Odour	: no data available
Flash point	: Not applicable.
pH	: 12.7
Odour Threshold	: no data available
Melting point/freezing point	: Melting point/freezing point: -8 °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
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.235, (15.6 °C),
Density	: no data available
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	: 5.41 mm ² /s (23.9 °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	: 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 (NO _x) Sulphur oxides

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Oxides of phosphorus

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 : 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 : 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

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Acute inhalation toxicity : Sodium Molybdate Dihydrate
LC50 rat: > 1.93 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Components

Acute dermal toxicity : Sodium Molybdate Dihydrate
LD50 rabbit: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Environmental Effects : Harmful to aquatic life with long lasting effects.

Product

Toxicity to fish : LC50 Fathead Minnow: 1,359 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Fathead Minnow: 1,080 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Rainbow Trout: 330 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Rainbow Trout: 250 mg/l
Exposure time: 96 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : EC50 Ceriodaphnia dubia: 1,943 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 Ceriodaphnia dubia: 2,206 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Ceriodaphnia dubia: 1,080 mg/l
Exposure time: 48 hrs
Test substance: Product

Components

Toxicity to algae : Sodium Tolyltriazole
EC50 Aquatic Plant: 53 mg/l
Exposure time: 72 h

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Sodium Tolyltriazole
NOEC: 0.4 mg/l
Exposure time: 21 d

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Species: Daphnia galeata (water flea)

Persistence and degradability

Biodegradability : Result: Biodegradable/Eliminated from aquatic environment

Total Organic Carbon (TOC) : 45,000 mg/l

Chemical Oxygen Demand (COD): 160,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

5 d

< 400 mg/l

Mobility

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 : CAUSTIC ALKALI LIQUID, N.O.S.
Technical name(s) : Sodium Tolyltriazole, Sodium Hydroxide
UN/ID No. : UN 1719

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Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 30,778 lbs
RQ Component : Sodium Hydroxide

Air transport (IATA)

Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.
Technical name(s) : Sodium Tolyltriazole, Sodium Hydroxide
UN/ID No. : UN 1719
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 30,778 lbs
RQ Component : Sodium Hydroxide

Sea transport (IMDG/IMO)

Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.
Technical name(s) : Sodium Tolyltriazole, Sodium Hydroxide
UN/ID No. : UN 1719
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 Hydroxide	1310-73-2	1000	30778

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
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.

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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 :

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. Australian Industrial Chemicals Introduction Scheme (AICIS)

On the inventory, or in compliance with the inventory.

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)

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

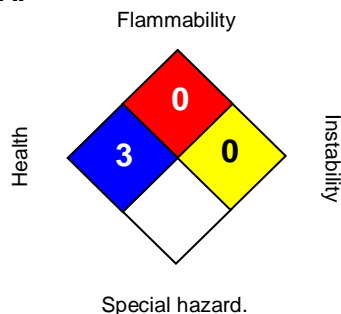
not determined

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

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 : 09/17/2024
Version Number : 2.0
Prepared By : Regulatory Affairs

SAFETY DATA SHEET

3D TRASAR™ 3DT401

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 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.

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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/cm³ , 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

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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

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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.

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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

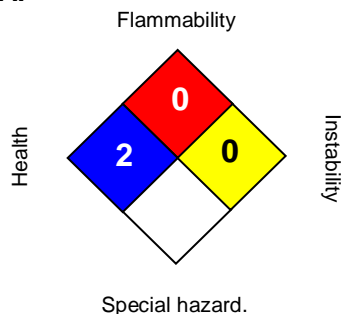
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

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 and request access.

SAFETY DATA SHEET

NALCO® 1720

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 1720

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 : 10/15/2024

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1
Acute toxicity (Oral) : Category 4
Serious eye damage : Category 1

GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : May be corrosive to metals.
Harmful if swallowed.
Causes serious eye damage.

Precautionary Statements : **Prevention:**
Keep only in original container. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection.
Response:
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. 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. Absorb spillage to prevent material damage.
Storage:
Store in corrosive resistant container with a resistant inner liner.
Disposal:

SAFETY DATA SHEET

NALCO® 1720

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : The head space of containers containing this product may accumulate Sulphur Dioxide (SO₂). SO₂ 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	10 - 30
Potassium Bisulfite	7773-03-7	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 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 : Heating or fire can release toxic gas. May evolve oxides of sulfur (SO_x) under fire conditions.

Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides

Special protective equipment for firefighters : Use personal protective equipment.

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NALCO® 1720

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. 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. Protect product from freezing.

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., HDPE (high density polyethylene), LLDPE, Nylon 11, Polypropylene, PTFE, PVC, UHMWPE, Nitrile, EPDM

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Unwelded Stainless Steel 316, Welded Stainless Steel 316, Brass, Mild steel, Stainless Steel 304, Kalrez, Fluoroelastomer, Neoprene, Epoxy phenolic resin, Shipping and long term storage compatibility with construction materials can vary; we therefore recommend that compatibility is tested prior to use.

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Exposure limits are listed for sulfur dioxide (SO₂) since this product evolves SO₂ when open to the atmosphere.

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Bisulfite	7631-90-5	TWA	5 mg/m ³	ACGIH

SAFETY DATA SHEET

NALCO® 1720

		TWA	5 mg/m3	NIOSH REL
Sulfur Dioxide	7446-09-5	STEL	0.25 ppm	ACGIH
		TWA	2 ppm 5 mg/m3	NIOSH REL
		STEL	5 ppm 13 mg/m3	NIOSH REL
		TWA	5 ppm 13 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.
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 : 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:
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.
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

SAFETY DATA SHEET

NALCO® 1720

Colour	: clear
Odour	: Pungent
Flash point	: does not flash
pH	: 3.5 - 4.1,(100 %), Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -11 °C, ASTM D-1177
Initial boiling point and boiling range	: 96 °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	: no data available
Relative vapour density	: no data available
Relative density	: 1.22 - 1.28, (15.6 °C),
Density	: 10.1 - 10.7 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	: 5 mPa.s (15 °C), Method: ASTM D 2983
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	: Evolves SO ₂ when open to atmosphere. The rate of SO ₂ 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. Freezing temperatures.
Incompatible materials	: SO ₂ may react with vapors from neutralizing amines and may produce a visible

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cloud of amine salt particles.

Hazardous decomposition products : Carbon oxides

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 : Causes serious eye damage.

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.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

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: 1,783 mg/kg

Acute inhalation toxicity : no data available

Acute dermal toxicity : rabbit: > 3,000 mg/kg
Test substance: Similar Product
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 : 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

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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): 382 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Inland Silverside: > 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 250 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 Daphnia magna (Water flea): 728 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): > 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Daphnia magna (Water flea): 250 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

EC50 Ceriodaphnia dubia: 491 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 Ceriodaphnia dubia: 508 mg/l
Exposure time: 48 hrs
Test substance: Product

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NOEC Ceriodaphnia dubia: 313 mg/l

Exposure time: 48 hrs

Test substance: Product

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.

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

The product will not 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 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.

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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 Bisulfite
UN/ID No. : UN 2693
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 18,347 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) : 18,347 lbs
RQ Component : Sodium Bisulfite

Sea transport (IMDG/IMO)

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

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	18347

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)
Serious eye damage or eye irritation

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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 may contain trace levels of substance(s) listed under the State of California Proposition 65 regulation.

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

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.

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

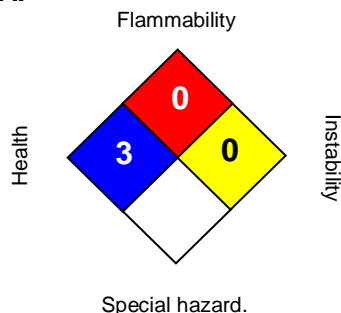
not determined

Section: 16. OTHER INFORMATION

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NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 10/15/2024
Version Number : 1.14
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 and request access.

Tri-ACT™ 1825

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Tri-ACT™ 1825

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 : 09/26/2023

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 3

Skin corrosion : Category 1

Serious eye damage : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Flammable liquid and vapour.
Harmful if swallowed or if inhaled.
Toxic in contact with skin.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharge. Avoid breathing mist or

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vapours. 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. 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

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Cyclohexylamine	108-91-8	30 - 60
Morpholine	110-91-8	10 - 30
Diethylethanolamine	100-37-8	10 - 30

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. FIREFIGHTING MEASURES

Suitable extinguishing media : Foam
Carbon dioxide
Dry powder

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Other extinguishing agent suitable for Class B fires
For large fires, use water spray or fog, thoroughly drenching the burning material.

- 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 : Decomposition products may include the following materials: 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 : Keep in properly labelled containers.

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Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Copper, Brass, Bronze, and their alloys, 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
Cyclohexylamine	108-91-8	TWA	10 ppm	ACGIH
		TWA	10 ppm 40 mg/m3	NIOSH REL
		TWA	10 ppm 40 mg/m3	OSHA P0
Morpholine	110-91-8	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m3	NIOSH REL
		ST	30 ppm 105 mg/m3	NIOSH REL
		STEL	30 ppm 105 mg/m3	OSHA P0
		TWA	20 ppm 70 mg/m3	OSHA P0
Diethylethanolamine	100-37-8	TWA	2 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA P0

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.

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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	: amine-like
Flash point	: 49 °C, Method: ASTM D 93, Pensky-Martens closed cup
pH	: 11.1,(1 %), Method: ASTM E 70 13.7,(100 %), Method: ASTM E 70
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	: 6.5 mm Hg, (20 °C), ASTM D 323, 18.5 mm Hg, (38 °C), ASTM D 323, 81 mm Hg, (66 °C), ASTM D 323,
Relative vapour density	: no data available
Relative density	: 0.94, (25 °C), ASTM D-1298
Density	: 0.94 g/cm ³ , 7.8 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	: 9 mPa.s (25 °C), Method: ASTM D 2983
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 79.7 %, Calculation method

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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	: Heat, flames and sparks.
Incompatible materials	: Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors. Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Avoid contact with SO ₂ or acidic bisulfite products, which may react to form visible airborne amine salt particles. Certain amines in contact with nitrous acid, organic or inorganic nitrites or atmospheres with high nitrous oxide concentrations may produce N-nitrosamines, many of which are cancer-causing agents to laboratory animals. Strong oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NO _x)

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	: Toxic in contact with skin. Causes severe skin burns.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause respiratory tract irritation. Harmful if inhaled. 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

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Toxicity

Product

Acute oral toxicity	: Rat: 440 mg/kg Test substance: Product Acute toxicity estimate: 793.09 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: 18.94 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	: rabbit: < 2,000 mg/kg Test substance: Product Acute toxicity estimate: 470.54 mg/kg
Skin corrosion/irritation	: Result: 8.0 Method: Draize Test Test substance: Product
Serious eye damage/eye irritation	: no data available
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 : This product has no known ecotoxicological effects.

Product

Toxicity to fish	: LC50 Oncorhynchus mykiss (rainbow trout): 130 mg/l Exposure time: 96 hrs Test substance: Product LC50 Pimephales promelas (fathead minnow): 75 mg/l Exposure time: 96 hrs Test substance: Product LC50 Inland Silverside: 362.5 mg/l Exposure time: 96 hrs Test substance: Product
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NOEC Oncorhynchus mykiss (rainbow trout): 56 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 32 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Inland Silverside: 250 mg/l
Exposure time: 96 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Mysid Shrimp (Mysidopsis bahia): 212.5 mg/l
Exposure time: 96 hrs
Test substance: Product

EC50 Daphnia magna (Water flea): 61 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Daphnia magna (Water flea): < 18 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 125 mg/l
Exposure time: 96 hrs
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 29.1 mg/l
Exposure time: 7 d
Species: Fathead Minnow
Test substance: Product

LOEC: 50 mg/l
Exposure time: 7 d
Species: Fathead Minnow
Test substance: Product

NOEC: 25 mg/l
Exposure time: 7 d
Species: Fathead Minnow
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC25 / IC25: 17.4 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia
Test substance: Product

LOEC: 25 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia
Test substance: Product

NOEC: 13 mg/l

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Exposure time: 7 d
Species: Ceriodaphnia dubia
Test substance: Product

Components

Toxicity to algae : Diethylethanolamine
EC50 : 44 mg/l
Exposure time: 72 h

Persistence and degradability

Chemical Oxygen Demand (COD): 1,000,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	887,500 mg/l	10 ppm Aqueous Solution of Product
10 d	905,500 mg/l	10 ppm Aqueous Solution of Product
28 d	0 mg/l	10 ppm Aqueous Solution of 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	: 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

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.

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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 : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.
Technical name(s) : CYCLOHEXYLAMINE, DIETHYLAMINOETHANOL, MORPHOLINE
UN/ID No. : UN 2734
Transport hazard class(es) : 8, 3
Packing group : II

Air transport (IATA)

Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.
Technical name(s) : CYCLOHEXYLAMINE, DIETHYLAMINOETHANOL, MORPHOLINE
UN/ID No. : UN 2734
Transport hazard class(es) : 8, 3
Packing group : II

Sea transport (IMDG/IMO)

Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.
Technical name(s) : CYCLOHEXYLAMINE, DIETHYLAMINOETHANOL, MORPHOLINE
UN/ID No. : UN 2734
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	22841

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Reproductive toxicity
Skin corrosion or irritation
Serious eye damage or eye irritation

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Tri-ACT™ 1825

Specific target organ toxicity (single or repeated exposure)

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 :

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. Australian Industrial Chemicals Introduction Scheme (AICIS)

On the inventory, or in compliance with the inventory.

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)

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

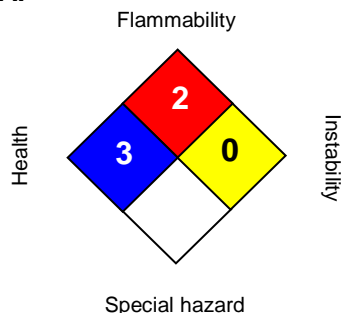
not determined

Section: 16. OTHER INFORMATION

SAFETY DATA SHEET

Tri-ACT™ 1825

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 09/26/2023
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 and request access.

NALCO® 7468

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 7468

Other means of identification : Not applicable.

Recommended use : DEFOAMER

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 : 10/02/2024

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

Chemical Name	CAS-No.	Concentration: (%)
Sorbitan Monostearate	1338-41-6	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 : Rinse mouth. Get medical attention if symptoms occur.

SAFETY DATA SHEET

NALCO® 7468

- 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. Protect product from freezing.

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Storage temperature	: 4 °C to 65 °C
Suitable material	: The following compatibility data is suggested based on similar product data and/or industry experience: Nylon, Stainless Steel 304, Stainless Steel 316L, Hastelloy C-276, Plexiglass, PVC, HDPE (high density polyethylene), Polyurethane, Aluminum, Ethylene propylene, Polypropylene, Polyethylene, PTFE, Perfluoroelastomer, Polytetrafluoroethylene/polypropylene copolymer
Unsuitable material	: The following compatibility data is suggested based on similar product data and/or industry experience: Copper, Brass, Buna-N, Natural rubber, Neoprene, Mild steel, Fluoroelastomer, Chlorosulfonated polyethylene rubber, EPDM, Nitrile

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.
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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	: off-white
Odour	: None
Flash point	: > 93.3 °C
pH	: approximately 4.0,(100 %), Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -5 °C
Initial boiling point and boiling	: no data available

SAFETY DATA SHEET

NALCO® 7468

range

Evaporation rate	: similar to water
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	: 0.99 - 1.03, (25 °C), ASTM D-1298
Density	: 8.2 - 8.6 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	: 300 - 2,000 mPa.s (25 °C), Method: ASTM D-2983
Viscosity, kinematic	: 300 - 2000 mm ² /s (25 °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 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, 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

NALCO® 7468

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: > 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

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: Product

LC50 *Pimephales promelas* (fathead minnow): > 1,000 mg/l

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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: Product

LC50 Ceriodaphnia dubia: 888.9 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 9,785 mg/l
End point: Growth
Exposure time: 7 d
Species: Pimephales promelas (fathead minnow)
Test substance: Product

NOEC: 5,000 mg/l
End point: Growth
Exposure time: 7 d
Species: Pimephales promelas (fathead minnow)
Test substance: Product

LOEC: 10,000 mg/l
End point: Growth
Exposure time: 7 d
Species: Pimephales promelas (fathead minnow)
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC25 / IC25: 33.6 mg/l
End point: Reproduction
Exposure time: 7 d
Species: Ceriodaphnia dubia
Test substance: Product

NOEC: 31 mg/l
End point: Reproduction
Exposure time: 7 d
Species: Ceriodaphnia dubia
Test substance: Product

LOEC: 63 mg/l
End point: Reproduction
Exposure time: 7 d
Species: Ceriodaphnia dubia
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) : 27,000 mg/l

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NALCO® 7468

Chemical Oxygen Demand (COD): 120,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

5 d

Value

9,240 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	: 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

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NALCO® 7468

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)

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)

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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

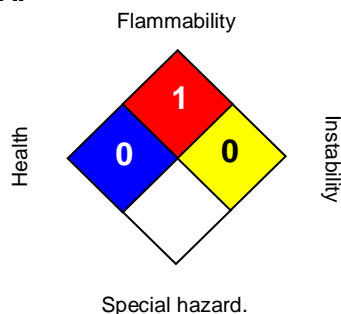
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

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 : 10/02/2024
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 and request access.

SAFETY DATA SHEET

NexGuard® 22300

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NexGuard® 22300

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 : 06/07/2024

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 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.

SAFETY DATA SHEET

NexGuard® 22300

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 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.

SAFETY DATA SHEET

NexGuard® 22300

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: Brass, Stainless Steel 304, Stainless Steel 316L, Neoprene, EPDM, Polyurethane, Polyethylene, Polypropylene, PVC, HDPE (high density polyethylene), Buna-N, Epoxy phenolic resin, 100% phenolic resin liner, Chlorosulfonated polyethylene rubber, Fluoroelastomer
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Mild steel

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 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

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NexGuard® 22300

Appearance	: Liquid
Colour	: yellow
Odour	: Slight
Flash point	: > 93.3 °C, Method: ASTM D 93, Pensky-Martens closed cup
pH	: 8,(100 %), (25 °C)
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: -1 °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
Relative density	: 1.065 - 1.105, (25 °C), ASTM D-1298
Density	: 1.05 - 1.10 g/cm ³ , 8.8 - 9.2 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	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Extremes of temperature None known.
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid,

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NexGuard® 22300

perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.
Strong acids

Hazardous decomposition products : In case of fire, hazardous decomposition products may be produced such as:
Carbon oxides
nitrogen oxides (NO_x)
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

Eye contact : Redness, Pain, Corrosion
Skin contact : Redness, Pain, Corrosion
Ingestion : Corrosion, Abdominal pain
Inhalation : Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity : rat: > 5,000 mg/kg
Test substance: Similar Product
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

SAFETY DATA SHEET

NexGuard® 22300

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): > 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: Product

NOEC Inland Silverside: 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Pimephales promelas (fathead minnow): > 8,100 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 8,100 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

NOEC Mysid Shrimp (Mysidopsis bahia): 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

EC50 Daphnia magna: 6,274 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Daphnia magna: 4,860 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to algae : EC50 Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 53 mg/l
End point: Growth

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NexGuard® 22300

Exposure time: 96 hrs
Test substance: Product

NOEC Green Algae (*Pseudokirchneriella subcapitata*,
previously *Selenastrum capricornutum*): approximately 13
mg/l
End point: Growth
Exposure time: 96 hrs
Test substance: Product

Persistence and degradability

Biodegradability : Result: Biodegradable/Eliminated from aquatic environment

The organic portion of this preparation is expected to be poorly 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.

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.

SAFETY DATA SHEET

NexGuard® 22300

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)

SAFETY DATA SHEET

NexGuard® 22300

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 and/or component(s) are exempt or excluded from the list of Existing and New Chemical Substances (ENCS) under the Law Regulating the Manufacture and Importation Of Chemical Substances.

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

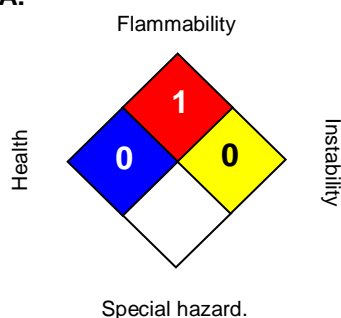
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

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

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 06/07/2024
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.

SAFETY DATA SHEET

NexGuard® 22300

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 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 ³ , 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 ² /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

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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)

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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

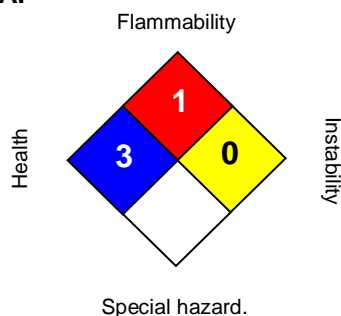
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

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 and request access.

SAFETY DATA SHEET

DETACK EC9444D

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DETACK EC9444D

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 : 09/02/2024

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2
Serious eye damage : Category 1

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes skin irritation.
Causes serious eye damage.

Precautionary Statements : **Prevention:**
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. Immediately call a POISON CENTER or doctor/ physician.
Storage:
Protect product from freezing.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
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SAFETY DATA SHEET

DETACK EC9444D

Oxyalkylate

Proprietary

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. Get medical attention if irritation develops and persists.
- 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 : 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 : 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

DETACK EC9444D

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 : Avoid contact with skin and eyes. 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. Protect product from freezing.
- Storage temperature : 4 °C to 65 °C
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Shipping and long term storage compatibility with construction 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 goggles
Face-shield
- Hand protection : Wear protective gloves.
butyl-rubber
Nitrile rubber
Neoprene 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.
An organic vapor cartridge with dust/mist prefilter may be used.

SAFETY DATA SHEET

DETACK EC9444D

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	: 186.0 °C, Method: ASTM D 93, Pensky-Martens closed cup
pH	: 6.8
Odour Threshold	: no data available
Melting point/freezing point	: POUR POINT: 0.0 °C
Initial boiling point and boiling range	: 101.1 °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	: 49.5 mm Hg, (37.7 °C),
Relative vapour density	: no data available
Relative density	: 1.0, (15.5 °C),
Density	: 8.3 lb/gal
Water solubility	: no data available
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: Pow: 3.3, Active Substance
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 103 mPa.s (25 °C) 40 mPa.s (40 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, Calculation method

Section: 10. STABILITY AND REACTIVITY

SAFETY DATA SHEET

DETACK EC9444D

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 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	: Causes serious eye damage. 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, Corrosion, Irritation
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	: 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

SAFETY DATA SHEET

DETACK EC9444D

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 : Toxic to aquatic life.

Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3.4 mg/l
Exposure time: 96 hrs
Test substance: Similar Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna: 4.0 mg/l
Exposure time: 48 hrs
Test substance: Similar Product

Persistence and degradability

Biodegradability : Result: Biodegradable

The product is readily biodegradable

Chemical Oxygen Demand (COD): 630,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	22,700 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%

SAFETY DATA SHEET

DETACK EC9444D

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

The product will not 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

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.

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DETACK EC9444D

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 :

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. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

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

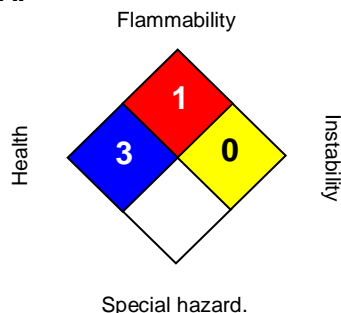
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

Section: 16. OTHER INFORMATION

SAFETY DATA SHEET

DETACK EC9444D

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 09/02/2024
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 and request access.

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Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : H-550

Other means of identification : Not applicable.

Recommended use : MICROBIOCIDE

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 : 12/02/2024

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

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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.

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- 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

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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 ³	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

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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

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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

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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.

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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

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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.

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California Prop. 65

 **WARNING:** Reproductive Harm - 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

On the inventory, or in compliance with the inventory.

Taiwan Chemical Substance Inventory

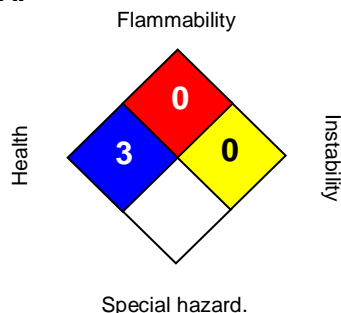
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

Section: 16. OTHER INFORMATION

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NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 12/02/2024
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 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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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

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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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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

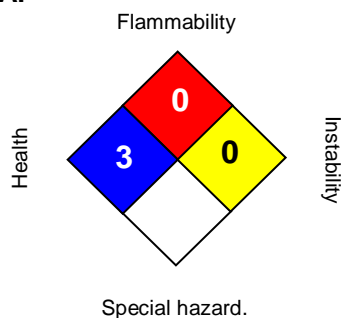
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

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 and request access.



SAFETY DATA SHEET

SPECTRUS* BD1501E

1. Identification

Product identifier	SPECTRUS BD1501E
Other means of identification	None.
Recommended use	Biodispersant
Recommended restrictions	Industrial use only.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
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	Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves. Wear eye/face protection.
Response	IF ON SKIN: Wash with plenty of soap and 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 or doctor/physician. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it 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

Inhalation	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.
Skin contact	Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.
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 immediately.
Ingestion	Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	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.
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 ₂).
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	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. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	<p>Prevent entry into waterways, sewer, basements or confined areas.</p> <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. 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. Ventilate area, use specified protective equipment. Flush area with water. Wet area may be slippery.</p>
Environmental precautions	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 contact with skin. Avoid contact with clothing. Avoid prolonged exposure. 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

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 (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

Wear safety glasses with side shields (or goggles) and a 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. 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 1910.34 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

Liquid

Physical state

Liquid.

Form

Not available.

Color

Colorless

Odor

Mild

Odor threshold

Not available.

pH (concentrated product)

6.7 Neat

Melting point/freezing point

31 °F (-1 °C)

Initial boiling point and boiling range

219 °F (104 °C)

Flash point

> 199 °F (> 93 °C) P-M(CC)

Evaporation rate

Slower than Ether

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

18 mmHg

Vapor pressure temp.

70 °F (21 °C)

Vapor density

< 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	70 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Pour point	36 °F (2 °C)
VOC	0 % ESTIMATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Not available.
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.
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Product	Species	Test Results
SPECTRUS BD1501E		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	3570 mg/kg (Calculated according to GHS additivity formula (Category 5))

Components	Species	Test Results
Alcohols, C10, alkoxylated (CAS 166736-08-9)		
<u>Acute</u>		
Oral		
LD50	Rat	500 - 2000 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
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Serious eye damage/eye irritation	Causes serious eye damage.
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Respiratory or skin sensitization

Respiratory sensitization	This product is not expected to cause respiratory sensitization. Not a respiratory sensitizer.
Skin sensitization	Not available.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
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IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

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	Not an aspiration hazard. Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
Aquatic Crustacea	IC25	Ceriodaphnia	39.9 mg/l, 7 day
	LC50	Ceriodaphnia	200 mg/l, 48 hour
		Daphnia magna	38.2 mg/l, 48 hour
	NOEL	Ceriodaphnia	100 mg/l, 48 hour
			25 mg/l, 7 day
		Daphnia magna	12.5 mg/l, 48 hour
Fish	LC50	Fathead Minnow	82.5 mg/l, 96 hour
		Rainbow Trout	141.4 mg/l, 96 hour
	NOEL	Fathead Minnow	31.3 mg/l, 96 hour
		Rainbow Trout	100 mg/l, 96 hour

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects Not available.

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.

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.

Toxic Substances Control Act (TSCA)

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 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Classified hazard categories Yes
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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)

Contains component(s) regulated under the Safe Drinking Water Act.

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

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

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-27-2014

Revision date Feb-19-2023

Version # 3.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



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
NFPA: National Fire Protection Association
ACGIH: American Conference of Governmental Industrial Hygienists
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
DOT: Department of Transportation (49 CFR 172.101).
IARC: International Agency for Research on Cancer.
OSHA: Occupational Safety & Health Administration.
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 Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

* Trademark of Veolia. May be registered in one or more countries.



SAFETY DATA SHEET

GENGARD* GN8203

1. Identification

Product identifier	GENGARD GN8203
Other means of identification	None.
Recommended use	Corrosion inhibitor
Recommended restrictions	None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
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 or doctor/physician. 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.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Sodium hydroxide	1310-73-2	2.5 - 10
Chlorotolyltriazole sodium salt	202420-04-0	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 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 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.

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. Call a physician or poison control center immediately.

Ingestion 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.

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.

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 (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.

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.

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 spillage to prevent material damage. 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.

Environmental precautions	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

Precautions for safe handling	Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage. Take precautions to minimize foaming.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store in accordance with local/regional/national/international regulation. Do not freeze. If frozen, thaw completely and mix thoroughly prior to use.

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/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

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	In case of insufficient ventilation, wear suitable respiratory equipment. 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 1910.34 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	Liquid
Physical state	Liquid.
Form	Not available.
Color	Amber to dark brown
Odor	Slight ammonia odor
Odor threshold	Not available.

pH (concentrated product)	13.5 Neat
Melting point/freezing point	19 °F (-7 °C)
Initial boiling point and boiling range	212 °F (100 °C)
Flash point	Not Applicable
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	18 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1
Relative density	1.2
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	16 mPa.s
Viscosity temperature	70 °F (21 °C)

Other information

pH in aqueous solution	12.3 (5% Solution)
Pour point	24 °F (-4 °C)
VOC	0 % ESTIMATED

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.
Conditions to avoid	Contact with incompatible materials. None under normal conditions.
Incompatible materials	Strong acids. 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	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	Expected to be a low ingestion hazard.
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
GENGARD GN8203		
<u>Acute</u>		
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
Chlorotolyltriazole sodium salt (CAS 202420-04-0)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Rat	3100 mg/kg
Sodium hydroxide (CAS 1310-73-2)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rabbit	> 500 mg/kg

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 Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

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.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
Aquatic		
Crustacea	LC50	Daphnia magna
		911 mg/L, 48 hour (pH adjusted)
		Mysid Shrimp
		300 mg/L, 96 hour (Similar Product)
Fish	NOEL	Daphnia magna
		500 mg/L, 48 hour (pH adjusted)
	LC50	Fathead Minnow
		276 mg/L, 96 hour (pH adjusted)

Product	Species	Test Results
NOEL	Menidia beryllina (Silversides)	400 mg/L, 96 hour (Similar Product)
	Rainbow Trout	273 mg/L, 96 hour (pH adjusted)
	Fathead Minnow	125 mg/L, 96 hour (pH adjusted)
	Rainbow Trout	200 mg/L, 96 hour (pH adjusted)
Persistence and degradability	No data is available on the degradability of this product.	
	No data is available on the degradability of this product.	
- COD (mgO2/g)	275 (calculated data)	
- BOD 5 (mgO2/g)	21 (calculated data)	
- BOD 28 (mgO2/g)	43 (calculated data)	
- Closed Bottle Test (% Degradation in 28 days)	14 (calculated data)	
- TOC (mg C/g)	86 (calculated data)	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Other adverse effects	Not available.	

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	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	UN1760
UN proper shipping name	Corrosive liquids, n.o.s. (Chlorotolyltriazole Sodium Salt, Sodium hydroxide), RQ(Sodium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Not available.
ERG number	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. (Chlorotolyltriazole sodium salt; Sodium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (Chlorotolyltriazole sodium salt; Sodium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

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.

Toxic Substances Control Act (TSCA)

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 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Corrosive to metal
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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)**

Contains component(s) regulated under the Safe Drinking Water Act.

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).

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 148465

Category Code(s):

G5 Cooling and retort water treatment products G7 Boiler, steam line treatment products –
nonfood contact

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sodium hydroxide (CAS 1310-73-2)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

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 Nov-02-2014

Revision date Feb-19-2023

Version # 5.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



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 Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).
* Trademark of Veolia. May be registered in one or more countries.	



SAFETY DATA SHEET

CORRSHIELD* MD4100

1. Identification

Product identifier	CORRSHIELD MD4100
Other means of identification	None.
Recommended use	Water-based corrosion inhibitor
Recommended restrictions	None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
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	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Harmful if swallowed. 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. Do not eat, drink or smoke when using this product. 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 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.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Sodium nitrite	7632-00-0	10 - 20

The exact concentrations of the above listed chemicals are being withheld as confidential business information.

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	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.
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. Call a physician or poison control center immediately.
Ingestion	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.
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.
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 warm. 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. Show this safety data sheet to the doctor in attendance.

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.
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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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.
Methods and materials for containment and cleaning up	<p>Prevent entry into waterways, sewer, basements or confined areas.</p> <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. 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.</p>
Environmental precautions	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

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in original tightly closed container. Keep only in the original container.

8. Exposure controls/personal protection

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. 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 1910.34 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

Keep away from food and drink. 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

Liquid

Physical state

Liquid.

Form

Liquid.

Color

Yellow

Odor

Mild

Odor threshold

Not available.

pH (concentrated product)

12.8

Melting point/freezing point

14 °F (-10 °C)

Initial boiling point and boiling range

220 °F (104 °C)

Flash point

> 414 °F (> 212 °C) SETA(CC)

Evaporation rate

< 1 (Ether = 1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

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

1.18

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	4 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC	0 % (Estimated)

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	Avoid contact with strong acids. This product may react with reducing agents.
Incompatible materials	Strong oxidizing agents. Avoid all contact with reducing agents, oils, greases, organics and acids. Contact with strong acids may cause a violent reaction releasing heat. Contact with water reactive compounds may cause fire or explosion.
Hazardous decomposition products	Oxides of carbon, nitrogen, and sulphur evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
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.
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Information on toxicological effects

Acute toxicity	Harmful if swallowed.
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Product	Species	Test Results
CORRSHIELD MD4100		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
Inhalation		
LC50	Rat	> 5 mg/l, 4 Hours (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	1717 mg/kg (Calculated according to GHS additivity formula (Category 4))

Components	Species	Test Results
Sodium nitrite (CAS 7632-00-0)		
<u>Acute</u>		
Oral		
LD50	Rat	180 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
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Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer. 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	
Sodium nitrite (CAS 7632-00-0)	2A Probably carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
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	Not classified.
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. Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product	Species		Test Results
Aquatic	Crustacea	LC50	Daphnia magna
		NOEL	Daphnia magna
Fish	0% Mortality	Rainbow Trout	
		2000 mg/L, 48 hour	
	LC50	Bluegill Sunfish	
		3258 mg/L, 96 hour	
NOEL	Fathead Minnow	2730 mg/L, 96 hour (Estimated)	
		1800 mg/L, 96 hour	
		1850 mg/L, 96 hour (Estimated)	

Persistence and degradability

- COD (mgO ₂ /g)	39 (calculated data)
- BOD 5 (mgO ₂ /g)	0 (calculated data)
- BOD 28 (mgO ₂ /g)	1 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	5 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	8 (calculated data)
- TOC (mg C/g)	6 (calculated data)

Bioaccumulative potential

Mobility in soil	No data available.
Other adverse effects	Not available.

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. Incinerate the material under controlled conditions in an approved incinerator.
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, SODIUM NITRITE), RQ(SODIUM NITRITE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Not available.
ERG number	154

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

UN number	UN3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN3266
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE), RQ(SODIUM NITRITE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

DOT



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium nitrite (CAS 7632-00-0) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Corrosive to metal
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Sodium nitrite	7632-00-0	10 - 20

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Formaldehyde (CAS 50-00-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Formaldehyde (CAS 50-00-0)

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
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).

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 141672
Category Code(s):
G5 Cooling and retort water treatment products
G7 Boiler, steam line treatment products – nonfood contact

US state regulations

California Proposition 65



WARNING: WARNING: This product can expose you to Formaldehyde, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)

Listed: January 1, 1988

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 Feb-11-2023

Version # 7.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



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
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 Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

* Trademark of Veolia. May be registered in one or more countries.



SAFETY DATA SHEET

FLOGARD* MS6222

1. Identification

Product identifier	FLOGARD MS6222
Other means of identification	None.
Recommended use	Water-based corrosion inhibitor
Recommended restrictions	None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
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. May cause damage to organs.

Precautionary statement

Prevention Keep only in original container. Do not breathe mist or vapor. Do not eat, drink or smoke when using this product. 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/. Specific treatment (see on this label). 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.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Phosphoric Acid	7664-38-2	60 - 80

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 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.

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. Call a physician or poison control center immediately.

Ingestion 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.

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.

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. 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 Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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.

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 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.

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.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Acidic. Do not mix with alkaline material. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. 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. Contact with metals may release flammable hydrogen gas. Store locked up. 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.

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/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

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. 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 1910.34 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

Liquid

Physical state

Liquid.

Form

Not available.

Color

Colorless to light yellow

Odor

Mild

Odor threshold

Not available.

pH (concentrated product)

< 1 Neat

Material name: FLOGARD* MS6222

Version number: 2.5

Melting point/freezing point	< -30 °F (< -34 °C)
Initial boiling point and boiling range	Not available.
Flash point	Not Applicable
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	15 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	> 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 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	25
pH in aqueous solution	1.2 (5% Solution)
Pour point	< -25 °F (< -32 °C)
VOC	0 % ESTIMATED

10. Stability and reactivity

Reactivity	May be corrosive to metals. 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. Contact with water reactive compounds may cause fire or explosion.
Conditions to avoid	Protect from freezing. Contact with metals may release flammable hydrogen gas.
Incompatible materials	Strong oxidizing agents. Metals. Avoid contact with strong bases.
Hazardous decomposition products	Oxides of carbon and phosphorus evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs by 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
FLOGARD MS6222		
<u>Acute</u>		
Dermal		
LD50	Rabbit	3650 mg/kg (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	400 mg/kg (Calculated according to GHS additivity formula)

Components	Species	Test Results
Phosphoric Acid (CAS 7664-38-2)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	2740 mg/kg
Oral		
LD50	Rat	300 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
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 1910.1001-1053)	Not listed.	
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 damage to organs. May cause respiratory irritation.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Chronic effects	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.
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Product	Species	Test Results
Aquatic	Crustacea	IC25 Ceriodaphnia 416.7 mg/l, 7 day (pH adjusted)
		LC50 Ceriodaphnia 1387 mg/l, 48 hour (pH adjusted)
		Daphnia magna 3540 mg/l, 48 hour (pH adjusted)
	NOEL	Ceriodaphnia 625 mg/l, 48 hour (pH adjusted)
		125 mg/l, 7 day (pH adjusted)
		Daphnia magna 2100 mg/l, 48 hour (pH adjusted)
Fish	LC50	Fathead Minnow 4200 mg/l, 96 hour (pH adjusted)
		Rainbow Trout 7382 mg/l, 96 hour (pH adjusted)
		NOEL Fathead Minnow 2100 mg/l, 96 hour (pH adjusted)

Product	Species	Test Results
	Rainbow Trout	5000 mg/l, 96 hour (pH adjusted)
Persistence and degradability	<p>Product contains only inorganics that are not subject to typical biological degradation. Assimilation by microbes may occur in waste treatment or the environment. This product, being inorganic, has no TOC, BOD.</p> <p>Product contains only inorganics that are not subject to typical biological degradation. Assimilation by microbes may occur in waste treatment or the environment. This product, being inorganic, has no TOC, BOD.</p>	
Bioaccumulative potential	No information 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.	

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). 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

UN number	UN1805
UN proper shipping name	Phosphoric acid solution, RQ(Phosphoric acid)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Not available.
ERG number	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN1805
UN proper shipping name	Phosphoric acid, solution
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN1805
UN proper shipping name	PHOSPHORIC ACID SOLUTION, RQ(Phosphoric acid)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B

Special precautions for user Not available.

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.

Toxic Substances Control Act (TSCA)

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 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Corrosive to metal
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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).

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Phosphoric Acid (CAS 7664-38-2)

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	Jun-15-2015
Revision date	Feb-19-2023
Version #	2.5
NFPA ratings	Health: 3 Flammability: 0 Instability: 0

NFPA ratings



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. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Prepared by

This SDS has been prepared by Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

* Trademark of Veolia. May be registered in one or more countries.

Material name: FLOGARD* MS6222

Version number: 2.5



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

- **Calcium Hypochlorite Tablets**

Synonyms

- 7000; Accu-Tab® SI Calcium Hypochlorite Tablets; Accu-Tab® Wastewater Tablets; Aquabalance Blue SI Calcium Hypochlorite Tablets; Aquaward® Tablets; Bio-Sanitizer; Blue Crystal; C2180T; Ca(OCl)₂. Accu-Tab® Blue Calcium Hypochlorite Tablets; Cal Hypo Tablets; Indutabs™; Jet-Chlor; Pittabs™; PML Pool Management Line Calcium Hypochlorite Tablets; Power Pro Tabs™; Repak™ Tabs; Sanuril® Tablets; Sustain® 3" Chlorinating Tablets; Sustain® Shield Energizer; VersaChlor™ System Chlorinating Tablets; Accu-Tab® Calcium Hypochlorite Tablets; Incredipool™

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Industrial Application, Chlorine Disinfectant, Pool Chemicals

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Axial, LLC
2801 Post Oak Blvd., Suite 600
Houston, TX 77056
United States
www.westlake.com
SDSinfo@westlake.com

Telephone (General) • +1 713-960-9111

1.4 Emergency telephone number

- Manufacturer** • +1 304-455-6882

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP

- Oxidizing Solids 2 - H272
Acute Toxicity Oral 4 - H302
Skin Corrosion 1B - H314
Serious Eye Damage 1 - H318
Hazardous to the aquatic environment Acute 1 - H400

2.2 Label Elements

CLP**DANGER**

- Hazard statements •** H272 - May intensify fire; oxidizer
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life

Precautionary statements

- Prevention •** P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep/Store away from clothing and other combustible materials.
P221 - Take any precaution to avoid mixing with combustibles
P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •** P370+P378 - In case of fire: Use appropriate media for extinction.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 - Wash contaminated clothing before reuse.
P321 - Specific treatment, see supplemental first aid information.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 - Immediately call a POISON CENTER or doctor/physician.
P391 - Collect spillage.
- Storage/Disposal •** P405 - Store locked up.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Supplemental information •** 1-3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

2.1 Classification of the substance or mixture

- UN GHS** • Oxidizing Solids 2
Acute Toxicity Oral 4
Skin Corrosion 1B
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Hazardous to the aquatic environment Acute 1
Hazardous to the aquatic environment Chronic 1

2.2 Label elements

UN GHS

DANGER



- Hazard statements •** May intensify fire; oxidizer
Harmful if swallowed

Causes severe skin burns and eye damage.
Causes serious eye damage
May cause respiratory irritation
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention** • Keep away from heat.
Keep/Store away from clothing and other combustible materials.
Do not eat, drink or smoke when using this product.
Take any precaution to avoid mixing with combustibles
Use only outdoors or in a well-ventilated area.
Do not breathe dust.
Wash thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
IF INHALED: 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.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor/physician.
Collect spillage.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 1-3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

- UN GHS** • According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Oxidizing Solids 2
Acute Toxicity Oral 4
Skin Corrosion 1B
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • May intensify fire; oxidizer
Harmful if swallowed
Causes severe skin burns and eye damage.

Causes serious eye damage
May cause respiratory irritation

Precautionary statements

- Prevention** • Keep away from heat.
Keep/Store away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
IF INHALED: 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.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor/physician.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 1-3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Oxidizing Solids 2
Acute Toxicity Oral 4
Skin Corrosion 1B
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

WHMIS 2015

DANGER



- Hazard statements** • May intensify fire; oxidizer
Harmful if swallowed
Causes severe skin burns and eye damage.
Causes serious eye damage
May cause respiratory irritation

Precautionary statements

- Prevention** • Keep away from heat

Take any precaution to avoid mixing with combustibles
 Keep away from clothing and other combustible materials.
 Do not breathe dust.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wear fire resistant or flame retardant clothing.

- Response •** In case of fire: Use appropriate media to extinguish.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 Wash contaminated clothing before reuse.
 Specific treatment, see supplemental first aid information.
 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/ physician.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- Storage/Disposal •** Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 1-3 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Calcium hypochlorite	CAS:7778-54-3 EC Number:231-908-7 EU Index:017-012-00-7	65% TO 76%	NDA	EU CLP: Annex VI, Table 3.1: Ox. Sol. 2, H272; Acute Tox. 4 *, H302; Skin Corr. 1B, H314; Aquatic Acute 1, H400 UN GHS Revision 3: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit; Aquatic Acute 1; Aquatic Chronic 1 OSHA HCS 2012: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit. WHMIS 2015: Ox. Sol. 2; Skin Corr. 1B; Eye Dam. 1; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit.
Sodium chloride	CAS:7647-14-5 EC Number:231-598-3	10% TO 30%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	EU CLP: Eye Irrit 2, H319 UN GHS Revision 3: Eye Irrit. 2; Acute Tox. 5 (orl); Skin Irrit. 3 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2
Calcium hydroxide	CAS:1305-62-0 EC Number:215-137-3	1% TO 3%	Ingestion/Oral-Rat LD50 • 7340 mg/kg	EU CLP: Eye Dam. 1 H318; Skin Corr. 1. H314; Aquatic Chronic 3, H412 UN GHS Revision 3: Eye Dam. 1; Skin Corr. 1; OSHA HCS 2012: Eye Dam. 1; Skin Corr. 1

				WHMIS 2015: Eye Dam. 1; Skin Corr. 1
Calcium chlorate	CAS: 10137-74-3 EINECS: 233-378-2	0% TO 3%	NDA	EU CLP: Ox. Sol. 2, H272 UN GHS Revision 3: Ox. Sol. 2 OSHA HCS 2012: Ox. Sol. 2 WHMIS 2015: Ox. Sol. 2
Calcium carbonate	CAS: 471-34-1 EC Number: 207-439-9	1% TO 3%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	EU CLP: Skin Irrit. 2, H315; Eye Irrit. 2, H319 UN GHS Revision 3: Eye Irrit. 2; Skin Irrit. 2 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2 WHMIS 2015: Eye Irrit. 2; Skin Irrit. 2
Pentasodium triphosphate	CAS: 7758-29-4 EC Number: 231-838-7	< 1%	Ingestion/Oral-Rat LD50 • 3120 mg/kg Skin-Rabbit LD50 • >4640 mg/kg	EU CLP: Skin Irrit. 2, H315 UN GHS Revision 3: Skin Irrit. 2; Acute Tox. 5 (orl) OSHA HCS 2012: Skin Irrit. 2 WHMIS 2015: Skin Irrit. 2
Calcium chloride	CAS: 10043-52-4 EC Number: 233-140-8 EU Index: 017-013-00-2	0.1%	Ingestion/Oral-Rat LD50 • 1 g/kg	EU CLP: Annex VI, Table 3.1: Eye Irrit. 2, H319 UN GHS Revision 3: Eye Irrit. 2; Acute Tox. 4 (orl); OSHA HCS 2012: Eye Irrit. 2; Acute Tox. 4 (orl); WHMIS 2015: Eye Irrit. 2; Acute Tox. 4 (orl)

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison control center or doctor for further treatment advice.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Call a poison center or doctor for treatment advice.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a Poison Control Center or doctor for treatment advice.

Ingestion

- If swallowed, seek medical attention immediately from poison control center or doctor. Have a person sip a glass of water, if able to swallow. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told to do so by the poison control center or doctor.

4.2 Most important symptoms and effects, both acute and delayed

- If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during, or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person. Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Probable mucosal damage may contraindicate the use of gastric lavage. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Drench with large quantities of water only.

Unsuitable Extinguishing Media • Do not use dry chemicals or foams. Product supplies own oxygen, therefore attempts to smother fire with a wet blanket, carbon dioxide, dry chemical extinguisher or other means are not effective. Product has the potential to cause a violent reaction if dry chemical fire extinguishers are used.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Containers may explode when heated.
May explode from heat or contamination.
May ignite combustibles (wood, paper, oil, clothing, etc.)
Runoff may create fire or explosion hazard.
Some will react explosively with hydrocarbons (fuels)
These substances will accelerate burning when involved in a fire.
Emits toxic fumes under fire conditions.
Chlorine gas may be generated.

Hazardous Combustion Products • Decomposition products may include the following materials: carbon oxides; halogenated compounds; metal oxide/oxides.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
No action shall be taken involving any personal risk or without suitable training.
This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions** • Use extreme caution in handling spilled material. Ventilate the area before entry. Use spark-proof tools and explosion-proof equipment. Do not walk through spilled material. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Emergency Procedures** • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures** • Avoid generating dust.
If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean (new, if possible), dry shovel and broom and immediately dissolve material in a water-filled container.

Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed.

6.4 Reference to other sections

- Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use extreme caution in handling spilled material. Use only with adequate ventilation. Keep away from combustible material. Strong oxidizer. Contact with other material may cause fire. Use spark-proof tools and explosion-proof equipment. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Always add product to large quantities of water to fully dissolve product. Do not pour water into product, always add product to water. Use only a clean (new, if possible), dry scoop made of metal or plastic each time product is taken from the container. Do not use with stabilized chlorine or bromine tablet chemical feeders. Do not add this product to any dispensing device containing remnants of any other product or pool chemical. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Empty containers retain product residue and can be hazardous. Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Ventilate enclosed areas. Keep only in the original container. Keep container closed. Separate from acids, alkalis, reducing agents and combustibles. Product is an NFPA Class 3 oxidizer which can cause a severe increase in fire intensity. Store in a cool, dry, well-ventilated place. If product becomes contaminated or decomposes do not reseal container. If possible isolate container in open air or well-ventilated area.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Ontario	Canada Quebec	NIOSH
C.I. Pigment Blue 15	TWAs	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>
Calcium chloride (10043-52-4)	TWAs	Not established	Not established	5 mg/m3 TWA	Not established	Not established
Calcium hydroxide (1305-62-0)	TWAs	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWAEV	5 mg/m3 TWA

Calcium carbonate (471-34-1)	TWAs	Not established	Not established	Not established	10 mg/m3 TWA _{EV} (total dust)	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Exposure Limits/Guidelines (Con't.)						
			Result	OSHA		
Calcium hydroxide (1305-62-0)			TWAs	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)		

8.2 Exposure controls

Engineering Measures/Controls

- 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.

Personal Protective Equipment

Respiratory

- If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye/Face

- Wear chemical splash goggles and face shield.

Skin/Body

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. GLOVES: Nitrile, neoprene, and butyl rubber.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Various colored solid (tablets) with a slight chlorine odor.
Color	Various colors.	Odor	Slight chlorine odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	Decomposes @ 170-180°C (338-356°F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	170 to 180 °C(338 to 356 °F)	pH	Alkaline
Specific Gravity/Relative Density	No data available	Bulk Density	1 to 1.07 g/cm³
Water Solubility	Soluble 100 %	Viscosity	No data available

Volatility

Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	Volatiles (Wt.)	0 %
Volatiles (Vol.)	0 %		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	60 °C(140 °F)	Flammability (solid, gas)	No data available

Environmental

Octanol/Water Partition coefficient	No data available		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- The product may not be stable under certain conditions of storage or use. Product decomposes at approximately 170-180°C (338-356°F) releasing oxygen gas and some chlorine gas.

10.3 Possibility of hazardous reactions

- Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials, contact with acids/ammonia. Reactions may include the following: risk of causing or intensifying fire, liberation of toxic gas.

10.4 Conditions to avoid

- Heating may cause a fire or explosion. Excessive heat will cause decomposition resulting in the release of oxygen and chlorine gas.

10.5 Incompatible materials

- Highly reactive or incompatible with the following materials: moisture, combustible materials, organic materials, metals, acids, alkalis, oxidizing materials, reducing materials, ammonia, petroleum products, paint products, wood and paper, and pool chemicals. Acid or ammonia contamination will release toxic gases.

10.6 Hazardous decomposition products

- Depending on conditions, product slowly releases chlorine gas.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

Components		
Calcium chloride (0.1%)	10043-52-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1 g/kg
Calcium hydroxide (1% TO 3%)	1305-62-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 7340 mg/kg; Irritation: Eye-Rabbit • 10 mg • Severe irritation
Calcium carbonate (1% TO 3%)	471-34-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 6450 mg/kg; Irritation: Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation

Sodium chloride (10% TO 30%)	7647-14 -5	Acute Toxicity: Ingestion/Oral-Rat LD50 • 3000 mg/kg; Irritation: Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 201.6 g/kg 6 Week(s)-Intermittent; Vascular:BP elevation not characterized in autonomic section; Mutagen: Unscheduled DNA synthesis • Ingestion/Oral-Rat • 16800 mg/kg 4 Week(s)-Continuous; Reproductive: Ingestion/Oral-Rat TDLo • 56400 mg/kg (5D pre-21D post); Reproductive Effects:Maternal Effects:Postpartum; Reproductive Effects:Effects on Newborn:Biochemical and metabolic
Pentasodium triphosphate (< 1%)	7758-29 -4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 3120 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Coma; Skin-Rabbit LD50 • >4640 mg/kg; Behavioral:Somnolence (general depressed activity); Lungs, Thorax, or Respiration:Dyspnea; Irritation: Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation
Calcium hypochlorite (65% TO 76%)	7778-54 -3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 850 mg/kg

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Oral 4 - ATEmix (oral)= 1118 mg/kg UN GHS 3 • Acute Toxicity - Oral 4 - ATEmix(oral)=1037 mg/kg OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATEmix(oral)=1037 mg/kg WHMIS 2015 • Acute Toxicity - Oral 4 - ATEmix (oral) = 1058 mg/kg
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1B UN GHS 3 • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B WHMIS 2015 • Skin Corrosion 1B
Serious eye damage/Irritation	EU/CLP • Serious Eye Damage 1 UN GHS 3 • Serious Eye Damage 1 OSHA HCS 2012 • Serious Eye Damage 1 WHMIS 2015 • Serious Eye Damage 1
Skin sensitization	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Respiratory sensitization	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Aspiration Hazard	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Carcinogenicity	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Germ Cell Mutagenicity	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Toxicity for Reproduction	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available

	WHMIS 2015 • No data available
STOT-SE	EU/CLP • No data available UN GHS 3 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation WHMIS 2015 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • No data available UN GHS 3 • No data available OSHA HCS 2012 • No data available WHMIS 2015 • No data available

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause corrosive burns - irreversible damage. May cause respiratory irritation.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

- Acute (Immediate)** • Causes severe skin burns.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

- Acute (Immediate)** • Causes serious eye damage. Direct contact with the eyes can cause irreversible damage, including blindness.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

- Acute (Immediate)** • Harmful or fatal if swallowed. May cause irreversible damage to mucous membranes.
- Chronic (Delayed)** • Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
Calcium Hypochlorite Tablets	NDA	Aquatic Toxicity-Fish: 96 Hour(s) <i>Bluegill - Lepomis macrochirus</i> 57-60 µg/L [Fresh water] Comments: Calcium hypochlorite 96 Hour(s) LC50 <i>Atlantic silverside - Menidia menidia</i> 37 µg/L [Marine water] Comments: Calcium hypochlorite 96 Hour(s) LC50 <i>Bluegill - Lepomis macrochirus</i> 1294600 µg/L [Fresh water] Comments: Sodium chloride 96 Hour(s) LC50 <i>Guppy - Poecilia reticulata</i> 356 mL/kg [Marine water] Comments: Calcium hydroxide 96 Hour(s) NOEC <i>Guppy - Poecilia reticulata</i> 56 mg/L [Marine water] Comments: Calcium hydroxide Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 <i>Water flea - Daphnia magna</i> 402600-469200 µg/L [Fresh water] Comments: Sodium chloride 48 Hour(s) EC50 <i>Water flea - Daphnia magna</i> 0.073-0.079 µg/L [Fresh water] Comments: Calcium hypochlorite

- LC50: 0.088 mg/L (96 hr, Bluegill Sunfish) Very toxic to aquatic life. Do not allow to

enter groundwater, surface water or drains. Hazardous to the aquatic environment
Chronic 1.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed. If this is not possible, material may be neutralized. Please contact Axiall Corporation Emergency Response team for guidance at 304-455-6882. Note: Only properly neutralized material should be flushed to sewer. Unneutralized material can cause environmental damage to receiving water or can interfere with treatment plant operation. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Empty containers retain product residue and can be hazardous. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
TDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IMO/IMDG	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Marine Pollutant
IATA/ICAO	UN2880	CALCIUM HYPOCHLORITE, HYDRATED	5.1	II	Chronic Aquatic Toxicity

14.6 Special precautions for user

- Under 49 CFR (DOT), non-bulk U.S. domestic shipments by ground do not require Marine Pollutant markings or labels, nor does Marine Pollutant need to be mentioned on shipping papers.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Hazard Classifications** • Acute, Fire**FIFRA – Pesticide Labeling**

This chemical is a pesticide product registered by the Environmental Protection Agency and is regulated under FIFRA. Pesticide products are exempt from TSCA and not subject to inventory requirements.

- 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.

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Calcium chloride	10043-52-4	Yes	No	Yes	No	Yes
Calcium hydroxide	1305-62-0	Yes	No	Yes	No	Yes
Calcium carbonate	471-34-1	Yes	No	Yes	No	Yes
Calcium chlorate	10137-74-3	No	No	Yes	No	No
Calcium hypochlorite	7778-54-3	Yes	No	Yes	No	Yes
Sodium chloride	7647-14-5	Yes	No	Yes	No	Yes
Pentasodium triphosphate	7758-29-4	Yes	No	Yes	No	Yes

Canada**Labor****Canada - WHMIS 1988 - Classifications of Substances**

• Calcium chloride	10043-52-4	D2B
• Calcium hypochlorite	7778-54-3	C, E
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	E
• Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria
• Calcium carbonate	471-34-1	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS 1988 - Ingredient Disclosure List

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	1 %
• Sodium chloride	7647-14-5	Not Listed

• Calcium carbonate	471-34-1	Not Listed
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Environment

Canada - CEPA - Priority Substances List

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	10 lb final RQ; 4.54 kg final RQ
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed

• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Calcium chloride	10043-52-4	Not Listed
• Calcium hypochlorite	7778-54-3	Not Listed
• Calcium chlorate	10137-74-3	Not Listed
• Pentasodium triphosphate	7758-29-4	Not Listed
• Calcium hydroxide	1305-62-0	Not Listed
• Sodium chloride	7647-14-5	Not Listed
• Calcium carbonate	471-34-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H412 - Harmful to aquatic life with long lasting effects

Revision Date

- 28/January/2021

Preparation Date

- 26/June/2015

Disclaimer/Statement of Liability

- The technical data given herein 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. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet
CAUSTIC SODA 25%

Version 1.5

Revision Date: 12/30/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product name** : CAUSTIC SODA 25%**Recommended use of the chemical and restrictions on use**

Recommended use : Industrial chemical

Manufacturer or supplier's details**Company** : Univar Solutions USA, Inc.
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)**Emergency telephone number:**Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887**Additional Information:** : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Corrosive to metals : Category 1

Skin corrosion : Category 1A

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.Precautionary statements : **Prevention:**
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 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.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

Storage:

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
1310-73-2	Sodium hydroxide	20 - 30

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

Synonyms : Sodium Hydroxide,

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

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- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Take victim immediately to hospital.
- If swallowed : Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Further information : 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.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Neutralise with acid.
Soak up with inert absorbent material (e.g. sand, silica gel,

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acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1310-73-2	Sodium hydroxide	C	2 mg/m ³	ACGIH
		C	2 mg/m ³	NIOSH REL
		TWA	2 mg/m ³	OSHA Z-1
		C	2 mg/m ³	OSHA P0
		C	2 mg/m ³	CAL PEL

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

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Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colorless
Odour	: odorless
Odour Threshold	: No data available
pH	: 14 @ 20 - 25 °C (68 - 77 °F)
Freezing Point	: No data available
Boiling Point	: No data available
Flash point	: > 93 °C (> 199 °F) 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	: 1.27 - 1.28 @ 20 - 25 °C (68 - 77 °F) Reference substance: (water = 1)

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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

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 decomposition if stored and applied as directed.
Conditions to avoid	: No data available
Incompatible materials	: Acids Halogenated compounds Metals organic nitro compounds Zinc

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****1310-73-2:**

Acute oral toxicity : LD50 (Rabbit): 325 mg/kg

Skin corrosion/irritation**Components:****1310-73-2:**

Species: Rabbit

Result: Causes severe burns.

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Serious eye damage/eye irritation**Components:****1310-73-2:**

Species: Rabbit

Result: Risk of serious damage to eyes.

Carcinogenicity**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor- : No data available

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mation

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

- Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
- Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**DOT (Department of Transportation):**

UN1824, Sodium hydroxide solution, 8, II

IATA (International Air Transport Association):

UN1824, Sodium hydroxide solution, 8, II

IMDG (International Maritime Dangerous Goods):

UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, Flash Point:> 93 °C(> 199 °F)

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)
Sodium hydroxide	1310-73-2	1000	3921

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

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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.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:

1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:

1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

1310-73-2 Sodium hydroxide

Pennsylvania Right To Know

7732-18-5 Water

1310-73-2 Sodium hydroxide

- 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.

The components of this product are reported in the following inventories:

- TSCA : On the inventory, or in compliance with the inventory
- DSL : On the inventory, or in compliance with the inventory
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

Safety Data Sheet

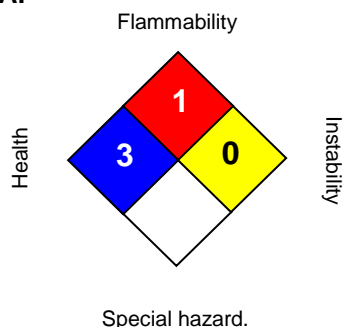
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SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 12/30/2021

Material number:

16163721, 16162553, 16147855, 16151729, 16147016, 16002081, 16002153, 16163814, 16181444, 16185708, 16185366, 16178437, 16176600, 16176259, 16175654, 16175444, 16175415, 16174721, 16176744, 16170086, 16169860, 16169683, 16168188, 16168798, 16146335, 16146334, 16143884, 16145401, 16145323, 16145278, 16145243, 16145242, 16125921, 16116103, 16113730, 755848, 650799, 546389, 70561, 53072, 574261, 53570, 16150734, 16149350, 16149457, 16144981, 16145777, 16147137, 16163653, 102698, 16160832, 16137556, 16137474, 16137324, 16152197, 16158393, 16152426, 16144481, 16147885, 16159715, 16143521, 16160487, 16160771, 16160572, 16160486, 16147888, 16147884, 16147854, 16147799, 16148872, 16144724, 16144461, 16148802, 16152705, 16145049, 16136108, 16135793, 16135298, 16143511, 16143409, 16143472, 16143461, 16143389, 16142429, 16140693, 16140424, 16142307, 16142009, 16141867, 16140353, 16141665, 16140968, 16142282, 16140375, 16140289, 16140979, 16141187, 16145400, 16145399, 16140956

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency

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NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Hypochlorite 12.5% sol.
DOCUMENT IDENTIFIER: 449610
SYNONYMS: Bleach
CHEMICAL FAMILY NAME: Inorganic, salt
NFPA HAZARD RATINGS (H-F-R): 2-0-1
HMIS HAZARD RATINGS (H-F-R): 2-0-1
DISTRIBUTOR: Brenntag Southwest, Inc.
IN CASE OF EMERGENCY CALL: 1-800-424-9300

MSDS PREPARED BY: Brenntag Southwest, inc.
610 Fisher Road
Longview, TX 75604
(903) 759-7151

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS NUMBERS</u>	<u>Percent</u>
Sodium chloride	007647-14-5	9-10
Sodium hydroxide	001310-73-2	<2
Sodium Hypochlorite	007681-52-9	12-13

Remainder consists of non-hazardous and/or other ingredients below reportable levels.
Trace impurities and additional material names not listed above may also appear in the Regulatory Information Section (Section 15) towards the end of the MSDS.
These materials may be listed for local "Right to Know" compliance and for other reasons.

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! Corrosive! May cause burns to eyes and skin. May be harmful if swallowed or inhaled.

POTENTIAL HEALTH EFFECTS:

SKIN CONTACT: May cause moderate to severe irritation consisting of discomfort, itching, reddening and swelling.
Contact with the skin can cause chemical burns.

SKIN ABSORPTION: No data available

EYES: Contact with the eyes causes redness, tearing, and blurred vision.
May cause burns to eyes.

INGESTION: Ingestion causes pain and inflammation of the mouth, gastrointestinal tract, and erosion of the mucous membranes.

INHALATION: Inhalation may cause irritation, burning sensation, coughing, wheezing, laryngitis, and shortness of breath or headache.
May cause lung damage/edema.

MEDICAL CONDITIONS AGGRAVATED:
No data available

WARNING: Contains a chemical known to the State of California to cause cancer.
Components found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
Sodium chloride	N	N	N
Sodium hydroxide	N	N	N
Sodium Hypochlorite	N	N	N

4. FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing and shoes.
Wash exposed areas with soap and water.
Call a physician if irritation persists.

EYE CONTACT: Flush eyes with water for at least 15 minutes.
Get immediate medical attention.

INGESTION: Call a physician immediately!
Do not induce vomiting. Give 1-2 glasses of water to dilute. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Do not give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air.
If breathing has stopped, give artificial respiration.
Get immediate medical attention.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES

FLASH POINT:	Not applicable °F
FLASH POINT:	Not applicable °C
FLASH POINT METHOD:	Not applicable
LOWER FLAMMABILITY LIMIT:	Not available
UPPER FLAMMABILITY LIMIT:	Not available
AUTOIGNITION TEMPERATURE:	Not available °F, Not available °C
FLAMMABILITY CLASSIFICATION:	Not applicable
EXTING. MEDIA:	This product is not flammable. Use extinguishing media for surrounding fire.
FIRE FIGHTING:	Use water spray to disperse vapors and to provide protection for persons attempting to stop leak. Cool fire-exposed containers with water spray.
PROTECTIVE EQUIPMENT:	Use NIOSH-approved self-contained breathing apparatus and complete protective clothing when fighting chemical fires.
FIRE HAZARDS:	Closed containers of this product may explode when exposed to excessive heat. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Avoid contact with combustible materials. May ignite or explode on contact with combustible materials. May ignite or explode on contact with combustible materials.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS:	Eliminate all sources of ignition. Contain spill and ventilate area. Absorb on inert media and containerize for disposal.
LARGE SPILLS:	Eliminate all sources of ignition. Contain spill and ventilate area. Permit only trained personnel wearing full protective equipment to enter the spill area. Collect the spill in a waste

container or remove with a vacuum truck. Prevent spill from entering natural watercourses.

PROTECTIVE EQUIPMENT\ SPILL-RELEASE INSTRUCTIONS:

Do not use combustible absorbents. Wear complete protective clothing when cleaning up chemical spills. Spills and releases may have to be reported to federal and/or local authorities. See the Regulatory Information section (section 14) regarding reporting requirements.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin, eyes, and clothing.

Avoid breathing product vapors and mists.

Do not take internally.

Wash thoroughly after handling this material.

Use this material only with adequate ventilation.

STORAGE: Keep container closed when not in use.

This material should be stored in a dry, cool place. Store in well-ventilated areas and at moderate temperatures.

Protect against physical damage.

The empty container is hazardous.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Good general ventilation (typically 10 air changes/hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

SKIN: Wear protective gloves made of neoprene or rubber.

EYE: Wear chemical safety goggles.

If engineering controls do not maintain airborne concentrations below recommended limits, wear a NIOSH-approved respirator for dusts and mists.

OTHER: Emergency showers, eyewash stations, and fire blankets should be accessible. Wear protective clothing.

EXPOSURE GUIDELINES:

INGREDIENT	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Sodium chloride	N/EST	N/EST	N/EST	N/EST
Sodium hydroxide	2(c) mg/m3	N/EST	2 mg/m3	N/EST
Sodium Hypochlorite	N/EST	N/EST	N/EST	N/EST

N/EST = Not established

c = ceiling

See 29 CFR 1910.1000 (D) (2) and ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculated exposure limits are appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE	Clear, pale yellow or green
ODOR:	Chlorine
SPECIFIC GRAVITY:	1.2
SOLUBILITY (IN WATER):	Complete
BOILING POINT (°F):	Not available
BOILING POINT (°C):	Not available
FREEZING POINT (°F):	-3 ⁰ F
FREEZING POINT (°C):	-19 ⁰ C
MELTING POINT (°F):	Not available
MELTING POINT (°C):	Not available
PRODUCT pH:	12-13
VAPOR PRESSURE:	17.5 @ 20
REFERENCE PRESSURE:	mm Hg
VAPOR DENSITY:	Not available
EVAPORATION RATE:	Not available
VISCOSITY:	Not available
% VOLATILES:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Exposure to high temperatures should be minimized.
INCOMPATIBILITY:	Combustible materials Acids Metals Amines Reducing agents
DECOMPOSITION:	Oxides of chlorine
POLYMERIZATION WILL OCCUR:	No

11. TOXICOLOGICAL INFORMATION

IMMEDIATE EFFECTS:	May cause burns to skin and eyes. May be harmful if swallowed or inhaled. TOXICITY DATA: 5800 mg/kg oral-mouse LD50; 8.91 g/kg oral-rat LD50; >10 g/kg dermal-rabbit LD50; 10.5 mg/L inhalation-rat
CARCINOGENICITY:	No data available
MUTAGENICITY:	Mutation in microorganisms - Salmonella typhimurium 1 mg/plate (-S9); DNA repair - Escherichia coli 20 ug/disc; DNA damage - Escherichia coli 420 umol/L; phage inhibition capacity - Escherichia coli 103 ug/well; micronucleus test - non-mammalian species multiple 200 ppb; cytogenetic analysis - non-mammalian species multiple 120 ug/L; cytogenetic analysis - human lymphocyte 100 ppm 24 hours; sister chromatid exchange - human embryo 149 mg/L; cytogenetic analysis - hamster lung 100 mg/L
EPIDEMIOLOGY:	No data available
TERATOGENICITY:	No data available
REPRODUCTIVITY:	No data available
NEUROTOXICITY:	No data available
OTHER EFFECTS:	No data available

12. ECOLOGICAL INFORMATION

FISH TOXICITY: 94.0 ug/L 96 hours LC50 (Mortality) Cutthroat trout (Oncorhynchus clarki) INVERTABRATE TOXICITY: 31.6 ug/L 7 hours IC50 (Species Diversity) Protozoan phylum (Protozoa) ALGAL TOXICITY: 90 ug/L 96 hours LC50 (Mortality)

Algae, phytoplankton, algal mat (Algae) PHYTOTOXICITY: 230 ug/L 35 hours
(Biomass) Curled pondweed (Potamogeton crispus) OTHER TOXICITY: 2.1 ug/L 2
days (Chlorophyl) Aquatic community (Aquatic community) ENVIRONMENTAL
SUMMARY: Highly toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

**RCRA
WASTE:** Yes

**RCRA ID
NUMBER:** D002 (If pH >12.5)

**VOC
CONTENT
(lbs/gal):** Not applicable

**Waste
Disposal
Procedure:** Discharge, treatment, or disposal may be subject to Federal, State, or
Local laws. State and Local regulations and restrictions are complex and
may differ from Federal disposal regulation. The information offered
here is for the product as shipped. Use and/or alterations to the product
such as mixing with other materials may significantly change the
characteristics of the material and alter the RCRA Classification and the
proper disposal method.

14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Hypochlorite solutions (Sodium Hypochlorite)

D.O.T. HAZARD CLASS: Class 8, No division Corrosive materials

DOT ID NUMBER: UN 1791

DOT PACKING GROUP: III

DOT RQ (lbs): 800

CONTRIBUTING CHEMICAL: Sodium Hypochlorite

OTHER: Labels required: Corrosive

MARINE POLLUTANT: No

OTHER REGULATORY INFORMATION

IMDG HAZARD CLASS: 8 - Corrosive materials

ICAO HAZARD CLASS: 8 - Corrosive

15. REGULATORY INFORMATION

FEDERAL REGULATIONS

TSCA (Toxic Substance Control Act): Yes
SECTION 311/312 HAZARD CLASS: Immediate (acute) health hazard

SARA TITLE III (Superfund Amendments and Reauthorization Act):

<u>INGREDIENTS</u>	<u>CAS NUMBERS</u>	<u>Section 313</u>	<u>Section 302</u>
Sodium chloride	007647-14-5	N	N
Sodium hydroxide	001310-73-2	N	N
Sodium Hypochlorite	007681-52-9	N	N

**WHMIS CLASSIFICATION
(CANADA):**

Class E

FOREIGN INVENTORY:

EINECS (European Inventory of Existing
Commercial Chemical Substances)
Canadian DSL (Domestic Substances List)

STATE RIGHT TO KNOW

CALIFORNIA PROP 65

This product does not contain any chemicals reportable under California Proposition 65.

MASSACHUSETTS SUBSTANCE LIST: Sodium Hypochlorite, asbestos

NEW JERSEY SUBSTANCE LIST: Sodium Hypochlorite

**PENNSYLVANIA HAZARDOUS SUBSTANCE
LIST:** Sodium Hypochlorite

16. OTHER INFORMATION

CREATION DATE: 10/07/1997

REVISION DATE: 10/02/2013

DISCLAIMER:

The information herein is presented in good faith and is believed to be correct as of the date hereof. However, Brenntag Southwest, Inc. makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature with respect to the product or to the information herein is made hereunder. Brenntag Southwest, Inc. shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication, or use of, or reliance upon the information contained herein.

EXPLANATION OF ABBREVIATIONS:

N/EST = Not Established

N/AP = Not Applicable

N/AV = Not Available



1. IDENTIFICATION

Product Name (s)	SULFURIC ACID
Product Use	pH adjustment, water treatment and various industrial applications.
Supplier	Shrieve Chemical Company 1755 Woodstead Court, The Woodlands, TX 77380-USA
Contact Numbers	800-367-4226
E-mail Contact for SDS	Cust-Serv@shrieve.com (customer service)
Emergency Telephone Number	CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard Classification

Skin Corrosion, 1B

Eye Damage, 1

Corrosive to metals, 1



Precautionary Statements

DANGER! Causes severe skin burns and eye damage. Causes serious eye damage. May be corrosive to metals

Do not breathe mists or vapors. Wash hands, face and forearms thoroughly after handling. Wear protective gloves, protective clothing, eye and face protection. Keep only in original container.

If swallowed rinse mouth, do NOT induce vomiting. If on skin or hair take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled remove person to fresh air and keep comfortable for breathing. Immediately call a doctor or poison control center. If in eyes rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Seek immediate medical attention. Absorb spillage to prevent material damage.

Store locked up. Store in a corrosion resistant container with a resistant liner.

Dispose of contents/container in accordance with local/state/federal regulations.



3. COMPOSITION / INFORMATION ON INGREDIENTS

Description Mixture

Component	CAS No.	Conc. (%)
Sulfuric Acid	7664-93-9	93-98
Water	7732-18-5	balance

4. FIRST AID MEASURES

Inhalation	Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.
Skin	In case of contact, immediately wash with plenty of water for at least 15 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use
Eye	Obtain immediate medical attention. Immediately flush eye with plenty of water for at least 20-60 minutes while holding eyelids open.
Ingestion	If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

5. FIRE FIGHTING MEASURES

Extinguishing media	Use extinguishing media suitable for surrounding fire
Unsuitable extinguishing media	None.
Fire fighting procedures	Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full acid-resistant protective clothing. Fight fire from maximum distance. Reacts violently with water releasing heat and corrosive material.
Combustion products	Oxides of sulfur.



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Personnel handling this material should be thoroughly trained to handle spills and releases. Do not direct hose streams into an unignited transportation spill (tank truck or tank car).
Personal Protection	Wear protective clothing specified for normal operations (see section 8).
Environmental Protection	Do not flush to drain. Runoff from fire control or dilution water may cause pollution.
Clean up methods - small spillage	Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Dike or retain dilution water or water from firefighting for later disposal.
Clean up methods - large spillage	Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Dike or retain dilution water or water from firefighting for later disposal. Pump any free liquid into an appropriate closed container. Exercise caution during neutralization as considerable heat may be generated. Carefully neutralize spill with soda ash. Absorb neutralized spill with an inert absorbent. Scrape up and place in appropriate closed container (see Section 7: Handling and Storage).

7. HANDLING AND STORAGE

Handling	Do not breathe vapors and mists. Do not get on skin or in eyes. This product reacts violently with bases liberating heat and causing spattering. When diluting an acid, ALWAYS add the acid slowly to water and stir well to avoid spattering. NEVER ADD WATER TO ACID.
Storage	Store in tightly closed containers. Store in an area that is dry, well-ventilated, diked with impermeable material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits		TWA (8 hours)			STEL (15 min)			Ceiling			Notes
Components:	List name	ppm	mg/m3	Other	ppm	mg/m3	Other	ppm	mg/m3	Other	
Sulfuric Acid	US ACGIH	-	0.2	-	-	3	-	-	-	-	
	OSHA PEL	-	1	-	-	-	-	-	-	-	



Occupational Exposure Standards	Provide adequate ventilation. If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering Control Measures	Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.
Respiratory Protection	<p>When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.</p> <p>Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against acid gases.</p>
Hand Protection	Chemical resistant gloves: .
Eye Protection	<p>Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.</p> <p>Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.</p>
Body Protection	<p>Skin contact must be prevented through the use of permeation resistant clothing, gloves and footwear, selected with regard for use conditions and exposure potential. An emergency shower must be readily accessible to the work area. Consideration must be given both to durability as well as permeation resistance.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Physical state	Colorless, oily liquid
Odor	none.
Odor Threshold	Not applicable
pH-value	1 at 1% by weight
Melting/Freezing Point	-36 to -28 C (-33 to -18 F)
Initial Boiling Point Range	151 to 276 C (304 to 529 F) at 760 mmHg
Flash Point	Not applicable



Evaporation Rate	Not available
Flammability	Not applicable
Upper/Lower Explosion Limits	Not available
Vapor Pressure	1 to 0 mmHg at 40 C (104 F)
Vapor Density	3.4
Relative density	1.6-1.8 (25. °C)
Density	1.6 to 1.8 g/ml at 25 C (77 F).
Solubility	Dispersible in water
Partial coefficient (n-octanol/water)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use.
Conditions To Avoid	None known.
Incompatible Materials	Reacts violently with water. Avoid strong reducing agents, halogens, bases, metals and nitrogen compounds.
Thermal Decomposition Products	Oxides of sulfur



11. TOXICOLOGICAL INFORMATION

Basis for assessment	Information given is based on the toxicology literature
Skin irritation	No test data found. This product was not tested because strong acids are known to be corrosive and cause severe tissue destruction.
Eye irritation	250 ug/24 hr, rabbit. Severely irritating.
Acute toxicity - Dermal	ND
Acute toxicity - Inhalation	LC50 - lethal concentration 50% of test species, 510 mg/cu m/2 hr, rat. LC50 - lethal concentration 50% of test species, 347 ppm/1 hr, rat.
Acute toxicity - Oral	LD50 - lethal dose 50% of test species, 2140 mg/kg, rat.
Repeated dose toxicity	This product contains substances that are considered to be probably or suspected human carcinogens. The International Agency for Research on cancer (IARC) has classified strong inorganic acid mists containing sulfuric acid as a known human carcinogen (IARC Category 1). This classification applies only to sulfuric acid when it is generated as a mist. There is still debate in the scientific community whether the studies reviewed by IARC adequately controlled for confounding occupational exposures and personal habits such as cigarette smoking and alcohol consumption. A few epidemiology studies have suggested a possible association between sulfuric acid exposure and laryngeal or lung cancer; however, in all these studies, workers were exposed to many other chemicals, some of which are recognized carcinogens, such as diethylsulfate and nickel. Considering the multiple chemical exposures and other limitations of the studies, we disagree with IARC's conclusion that a cause and effect relationship between cancer and exposure to strong inorganic acid mist containing sulfuric acid has been demonstrated.
Mutagenicity	ND.
Developmental toxicity	ND.

12. ECOLOGICAL INFORMATION

Basis for Assessment	The toxicity of sulfuric acid to fish is dependent on the resulting pH of the water. lethality at a pH of 5.0 or below. required to cause lethality varies depending on the hardness of the water (hard water has some buffering capacity) and the species of fish (some fish are more resistant to the effects of acidity). McKee, JE, and Wolf, HA (Editors), Water Quality Criteria, 2nd ed., Publication No. 3-A, p. 279, California State Water Resources Control Board, Sacramento, CA (rev. 1963).
Mobility	ND
Persistence/degradability	ND
Bioaccumulation	ND
Freshwater Fish Toxicity	ND



Freshwater Invertebrates Toxicity	ND
Acute toxicity - algae	ND
Acute toxicity - bacteria	ND

13. DISPOSAL CONSIDERATIONS

Waste disposal	Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.
Container disposal	Drain container and rinse thoroughly. Puncture container to avoid reuse. Dispose to licensed disposal contractor.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. TRANSPORT INFORMATION

DOT Classification	UN1830, 8, PGII SULFURIC ACID
	Reportable quantity: 1000 LBS

15. REGULATORY INFORMATION

INTERNATIONAL REGISTRATION:

TSCA (USA)	All components listed or exempted. SARA 302/304/311/312 extremely hazardous substances: Sulfuric Acid, 1000 lbs. SARA 302/304 emergency planning and notification: Sulfuric Acid SARA 302/304/311/312 hazardous chemicals: Sulfuric Acid SARA 311/312 MSDS distribution - chemical inventory - hazard identification: SULFURIC ACID: Immediate (acute) health hazard, Reactive Hazard. CERCLA: Hazardous substances.: Sulfuric Acid, 1000 lbs.
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16. OTHER INFORMATION

HEALTH HAZARD: 3

FIRE HAZARD: 0

REACTIVITY: 2

Prepared by: Audris King

Revisions: 02/16/2015: Updated sections 2, 3, 9. Converted to GSH format.

1010/2013: Updated format

02/19/2019: Updated exposure limits

The information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the result of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

ATTACHMENT T-3
Treatment Chemicals
INEOS Polyethylene North America La Porte Plant

Product Name		Dosage	Usage	Chemicals Listed in SDS [CAS]	Aquatic Toxicity Data in SDS	Bioaccumulation / Persistence Data in SDS
3DT184	NALCO		Cooling tower	Phosphoric acid [7664-38-2]	Yes	Yes
3DT396	NALCO		Cooling tower	Sodium bromide [7647-15-6]	Yes	Yes
3DT398	NALCO		Cooling tower	Modified benzimidazole salt [N/A]	Yes	Yes
				Organic sulfonic acid [N/A]		
				Acetic acid [64-19-7]		
3DT401	NALCO	During turnaround	Cooling tower	Sodium molybdate dihydrate [10102-40-6]	Yes	Yes
				Sodium tolyltriazole [64665-57-2]		
				Sodium hydroxide [1310-73-2]		
1700 SUR-GARD	NALCO		PP boilers	Diethylethanolamine [100-37-8]	Yes	Yes
1720	NALCO		PE boiler	Sodium bisulfite [7631-90-5]	Yes	Yes
				Potassium bisulfite [7773-03-7]		
1825 Tri-ACT	NALCO		PE / PP boilers	Cyclohexylamine [108-91-8]	Yes	Yes
				Morpholine [110-91-8]		
				Diethylethanolamine [100-37-8]		
7468	NALCO		Gemini / 001 pond	Sorbitan monostearate [1338-41-6]	Yes	Yes
22300 NexGuard	NALCO		PP / PE boiler	No hazardous substances listed	Yes	Yes
73550 Nalsperse	NALCO		Cooling tower (PP)	Nonionic surfactant [N/A]	Yes	Yes
				Nonionic alkyl polyglycoside [N/A]		
EC9444D	NALCO		Gemini	Oxyalkylate [N/A]	Yes	Yes
H-550	NALCO	During turnaround	Cooling tower	Glutaraldehyde [111-30-8]	Yes	Yes
				Methanol [67-56-1]		
BD1501E	Veolia	0.5 gpd	Cooling tower (Gemini)	Alcohols, C10, alkoxylated [166736-08-9]	Yes	No
GN8203	Veolia	12 gpd	Cooling tower (Gemini)	Sodium hydroxide [1310-73-2]	Yes	Yes
				Chlorotolyltriazole sodium salt [202420-04-0]		
MS6222	Veolia	0.5 gpd	Cooling tower (Gemini)	Phosphoric acid [7664-38-2]	Yes	Yes
Calcium hypochlorite tablets	Axiall		Disinfectant	Calcium hypochlorite [7778-54-3]	Yes	No
				Sodium chloride [7647-14-5]		
				Calcium hydroxide [1305-62-0]		
				Calcium chlorate [10137-74-3]		
				Calcium carbonate [471-34-1]		
				Pentasodium triphosphate [7758-29-4]		
Sodium hydroxide (caustic soda)	Univar		pH adjustment	Calcium chloride [10043-52-4]	No	No
				Sodium hydroxide [1310-73-2]		
Sodium hypochlorite	Brenntag		Disinfectant	Sodium chloride [7647-14-5]	Yes	No
				Sodium hydroxide [1310-73-2]		
				Sodium hypochlorite [7681-52-9]		
Sulfuric acid	Shrieve		pH adjustment	Sulfuric acid [7664-93-9]	Yes	No



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.

INEOS USA LLC (CN602817884) operates the INEOS North America La Porte Plant (RN100229905), a polyethylene and polypropylene manufacturing facility. The facility is located at 1230 Independence Parkway South, La Porte, Harris County, Texas 77571.

The application is to renew TPDES Permit No. WQ0000544000 to discharge a maximum average of 3.98 million gallons per day of process wastewater, utility and railcar wash water, and domestic wastewater via Outfall 001. Outfalls 002 and 004 discharge stormwater and utility wastewater. Outfall 005 discharges stormwater. All of the outfalls discharge into Phillips Ditch, which flows to Santa Anna Bayou, and then to the Houston Ship Channel.

Wastewater treatment processes for Outfall 001 include neutralization, metal/solids removal, and clarification. Domestic wastewater is treated biologically and disinfected. Solids removal is used in the Outfall 002, 004, and 005 systems.

Discharges from the outfalls are expected to contain total organic carbon, oil and grease, suspended solids, and metals. Other potential pollutants that may be in the discharge are included in Worksheet 2 of the TPDES application.

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

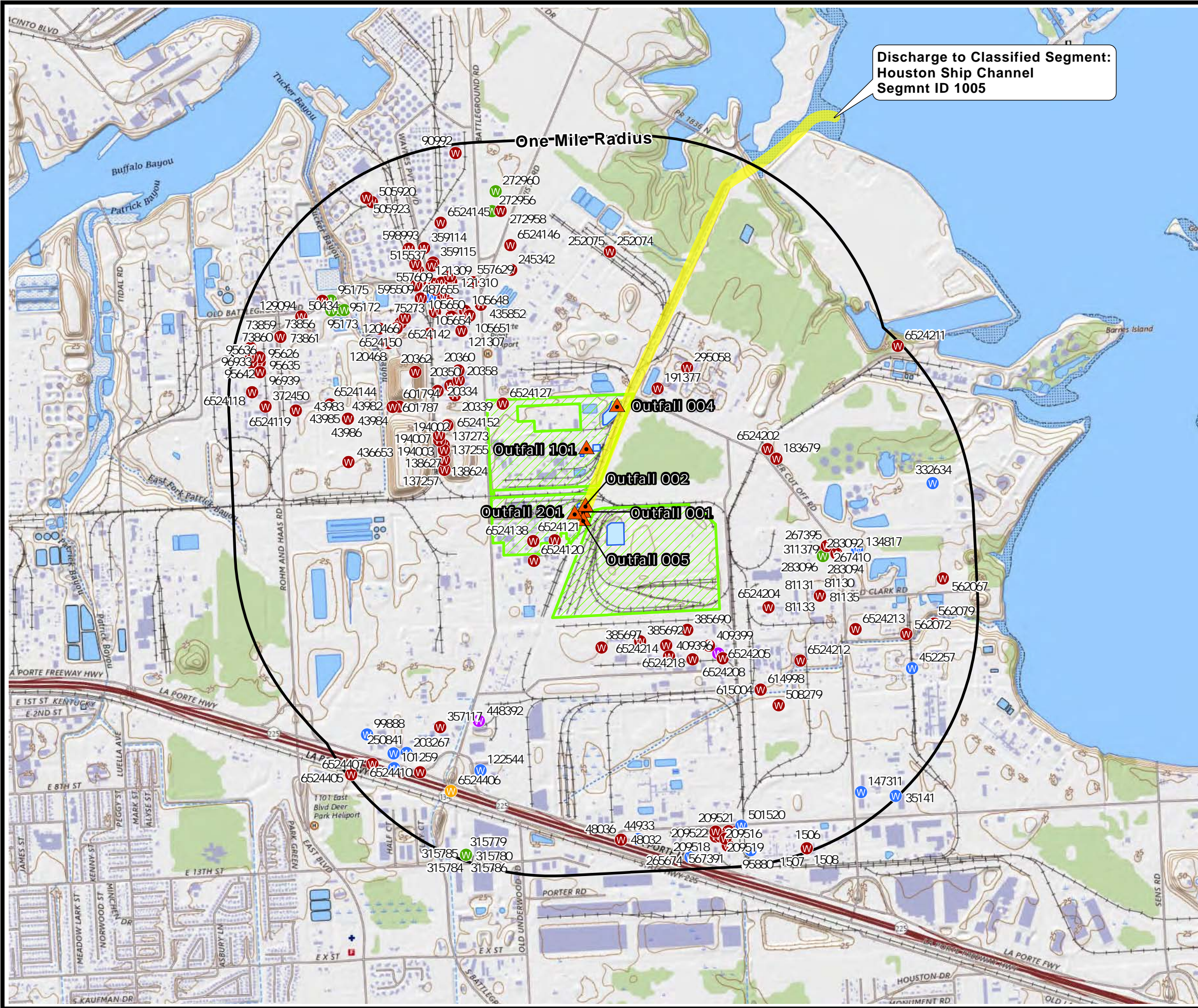
El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar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

INEOS USA LLC (CN602817884) opera la INEOS North America La Porte Plant (RN100229905), una instalación de fabricación de polietileno y polipropileno. La instalación está ubicada en 1230 Independence Parkway South, La Porte, Condado de Harris, Texas 77571.

La solicitud es para la renovación del permiso TPDES no. WQ0000544000 para descargar un máximo medio de 3.98 millones de galones al día de aguas residuales de proceso, agua residual de servicios públicos y agua de lavado de vagones de ferrocarril, y aguas residuales domésticas a través del Outfall 001. Los Outfalls 002 y 004 descargan aguas pluviales y aguas de servicios. El Outfall 005 descarga aguas pluviales. Todos los Outfalls descargan en la zanja Phillips, que fluye hacia el arroyo Santa Anna y, a continuación, hacia el canal de navegación de Houston.

Los procesos de tratamiento de aguas residuales del Outfall 001 incluyen la neutralización, la eliminación de metales y sólidos y la clarificación. Las aguas residuales domésticas se tratan biológicamente y se desinfectan. La eliminación de sólidos se utiliza en los sistemas de los Outfalls 002, 004 y 005.

Se espera que los vertidos de los Outfalls contengan carbono orgánico total, aceites y grasas, sólidos en suspensión y metales. Otros contaminantes potenciales que pueden estar presentes en el vertido se incluyen en la Worksheet 2 de la solicitud.



LEGEND

- INEOS Property/Facility Boundary
- Outfall Location
- Discharge Route
- Wastewater Impoundments
- One Mile Radius
- TWDB Wells
 - Domestic / Public Supply
 - Commercial
 - Environmental Soil Boring
 - Industrial / Monitor
 - Other / Plugged or Destroyed

Sources:
USGS Topographic Quadrangles 7.5 Minute Series: La Porte, TX
TWDB Wells: Texas Water Development Board



0 1,000 2,000
FEET

1:24,000

INEOS USA LLC
LA PORTE, TEXAS

ATTACHMENT A-1
USGS MAP

DRAWN BY: S WILSON	SCALE: AS NOTED	PROJ. NO. TPDES 2022
CHECKED BY: D KOCUREK	DATE PRINTED: 12/5/2022	USGS Map.aprx
APPROVED BY: D KOCUREK	DATE: December 2022	



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

Attachment SPIF-1

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 WO-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: INEOS USA LLC

Permit No. WQ00 00544000

EPA ID No. TX 0006033

2. Address of the project (or a location description that includes street/highway, city/vicinity, and county):

1230 Independence Parkway South, La Porte, Harris County, TX 77571

Attachment SPIF-1

3. 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: Marisela Lozano

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

Title: Environmental Specialist

Mailing Address: INEOS USA LLC, 1230 Independence Parkway South

City, State, Zip Code: La Porte, TX 77571

Phone No.: 713-307-3173 Ext.: N/A Fax No.: 713-307-3598

E-mail Address: marisela.lozano@ineos.com

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

N/A

6. 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, 002, 004, and 005 to Phillips Ditch, thence to Santa Anna Bayou, thence to Houston Ship Channel / San Jacinto River Tidal in Segment No. 1005 of the San Jacinto River Basin

7. 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

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

There are two older process reactors built in 1962 that remain on-site. Other 50-year plus structures remaining on-site include the Area 40 finishing building, the Area 60 boiler house, and the old I&E shop (presently a storage building). Photos can be provided if needed.

Attachment SPIF-1

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

N/A

- ☐ 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

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

N/A

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

The site is an industrial chemical manufacturing facility.

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

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

The original facility was constructed in 1956. Other process units have been added since then.

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

N/A



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](#)¹ 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 INEOS La Porte Plant produces high density polyethylene and polypropylene resins. The applicable SIC code is 2821.

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

Process wastewater is generated from polyethylene and polypropylene production. Other wastewaters include utility wastewaters, sanitary wastewaters, and stormwater. For additional information see Attachment T-1 Facility Description.

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

¹

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

Materials List

Raw Materials	Intermediate Products	Final Products
Ethylene [74-85-1]		Polyethylene [9002-88-4]
Propylene [115-07-1]		Polypropylene [9003-07-0]
Hexene [592-41-6]		
Butene [106-98-9]		
Chromic acetate [1066-30-4]		
Hydrogen [1333-74-0]		
Isobutane [75-28-5]		
Isobutyl aluminum dichloride [1888-87-5]		
Diethyl aluminum chloride [96-10-6]		
Triethylaluminum [97-93-8]		
N-Propyl-trimethoxy-silane [1067-25-0]		
Titanium tetrachloride [7550-45-0]		
Catalysts and additives (components include aluminum, chromium, and zinc compounds; barium carbonate; formaldehyde; hexamagnesium; tetrafluoroethylene; and amine compounds)		

Attachment: N/A

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 Site Diagram

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: FEMA FIRM FM48201C0930L

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: N/A

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 Wastewater Flow Diagram INEOS La Porte Plant

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 WWT Pond	Pond #2 Stormwater Treatment Pond	Pond #3 Surge Pond	Pond #4 Containment Basin	Pond #5 Stormwater Pond	Pond #6 Demin Pit
Use Designation: (T) (D) (C) or (E)	T	T	C	C/T	C	T
Associated Outfall Number	001	002	001	004	005	001
Liner Type (C) (I) (S) or (A)	Cement	Cement	#380 mil HDPE with in situ clay	Cement	In situ soil	Concrete / Epoxy
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	N/A	Y	N/A	N/A	N/A	N/A
Length (ft)	112	152	132	500	500	30
Width (ft)	73	118	130	185	260	21
Max Depth From Water Surface (ft), Not Including Freeboard	5	6	6	9	5	13
Freeboard (ft)	2	2	2	2	2	2
Surface Area (acres)	0.11	0.32	0.09	2.1	3	0.01
Storage Capacity (gallons)	208,900	442,000	140,500	6,160,000	6,000,000	70,600
40 CFR Part 257, Subpart D, Y/N	N	N	N	N	N	N
Date of Construction	N/A	1975	1987	1977	N/A	N/A

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	29.719950	-95.083658
002	29.720286	-95.083497
004	29.725825	-95.081250
005	29.719478	-95.083672
101	29.723508	-95.083314
201	29.719867	-95.084208

Outfall Location Description

Outfall No.	Location Description
001	At the flow measuring device where commingled effluents are discharged from the holding pond prior to enterin Phillips Ditch
002	Where the utility wastewater and stormwater runoff from the southeast side of the property are discharged prior to entering Phillips Ditch
004	Where the utility wastewater and stormwater runoff are discharged from the stormwater pond on the northeast side of the property prior to entering Phillips Ditch
005	Where stormwater runoff from the rail storage yards and transloading area is discharged prior to entering Phillips Ditch or at the pump discharge prior to entering the pipeline
101	At the final treatment unit of the domestic wastewater treatment unit (located in the polypropylene area) prior to commingling with any other wastewater
201	At the final treatment unit of the domestic wastewater treatment unit (located in the polyethylene area) prior to commingling with any other wastewater

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

Outfall No.	Description of sampling point
All outfalls	Same as location description above

Outfall Flow Information – Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	3.98	5.51	3.98	5.51	N/A

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
002	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	N/A
004	Flow variable	Flow variable	Intermittent and flow variable	Intermittent and flow variable	N/A
005	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	N/A
101	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	N/A
201	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	Intermittent and flow variable	N/A

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	Y	N	Mag meter
002	N	Y	Estimate
004	N	Y	Weir
005	Y	N	Weir
101	N	Y	Estimate
201	N	Y	Estimate

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
002	Y	N	N	Variable	Variable	Variable
004	Y	N	N	Variable	Variable	Variable
005	Y	N	N	Variable	Variable	Variable
101	Y	N	N	Variable	Variable	Variable
201	Y	N	N	Variable	Variable	Variable

Outfall Wastestream Contributions

Outfall No. All outfalls

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
See Attachment T-1 Facility Description, Table 1 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-3 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)
Cooling towers	6	0.575	0.829
Boilers	6	0.438	0.438

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 on-site temporarily during construction/maintenance or other projects.
- 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.
See Worksheet 5.	

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 Outfall 001 is required in the TPDES permit and results of those tests are submitted to the TCEQ as required by the permit.

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** N/A.

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: T-1 Facility Description, Sanitary Wastewater Treatment

- 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)
Ethane and propane can contain naturally occurring radioactive materials (NORM). During normal operation, wastewater discharges are not expected to be in contact with NORM. During turnarounds (every 4-5 years) wastewater from hydroblasting of process equipment, which may contained NORM, may be routed to the wastewater treatment plant.	N/A
Other radioactive materials are present in fixed and enclosed devices/instruments and are not exposed to wastewater.	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 (partially) ☐ 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	S1010013A (Trinity River)
Owner	-
Operator	-

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

☐ No ☒ Yes; PWS No.: TX1013432 (Battleground Water Supply), TX1010013 (City of Houston) – for additional detail, see Attachment T-1 Facility Description, 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.

N/A

- 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: William E. Sloane

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
Subpart D Thermoplastic Resins	100%	N/A	N/A
Subpart J Non-biological Treatment	N/A	N/A	N/A

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 1 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
Polyethylene	414	D / J	1956
Polypropylene	414	D / J	1978
Polyethylene (Gemini Project)	414	D / J	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): 09/30/2024 – 01/12/2025
- 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.

Laboratories for Outfall Analyses	
Parameters	Laboratory
Dissolved oxygen, pH, sulfite, total residual chlorine, temperature	Permittee INEOS USA LLC WQ0000544000
Surfactants	ALS Houston 10450 Stancliff Road, Suite 210 Houston, TX 77099 Accreditation ID: T104704231
All other analytes	A&B Labs 10100 East Freeway, Suite 100 Houston, TX 77029 Accreditation ID: T104704213

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)
	9/30-10/1/24	9-Oct-24	24-Oct-24	30-Oct-24
BOD (5-day)	2.55	<2.	<2.	<2.
CBOD (5-day)	2.45	<2.	<2.	<2.
Chemical oxygen demand	36.	38.	27.	34.
Total organic carbon	11.5	11.9	7.68	9.66
Dissolved oxygen	7.8	5.7	6.8	5.4
Ammonia nitrogen	<0.014	0.217	0.039	0.071
Total suspended solids	7.6	10.4	5.8	2.8
Nitrate nitrogen	0.87	0.657	0.557	0.657
Total organic nitrogen	0.638	1.03	0.646	0.531
Total phosphorus	0.811	0.594	0.38	0.5
Oil and grease	<1.55	<1.55	<1.55	<1.61
Total residual chlorine	1.4	0.2	0.	0.8
Total dissolved solids	1020.	830.	460.	758.
Sulfate	261.	233.	115.	173.
Chloride	301.	297.	134.	287.
Fluoride	0.526	0.494	0.33	0.463
Total alkalinity (mg/L as CaCO ₃)	86.1	76.1	92.1	90.1
Temperature (°F)	93.3	89.	93.	92.
pH (standard units)	7.5	7.5	7.4	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)
	9/30 - 10/1/24	9-Oct-24	24-Oct-24	30-Oct-24	
Aluminum, total	576.	575.	287.	556.	2.5
Antimony, total	0.66	0.64	0.59	0.47	5
Arsenic, total	5.69	5.06	2.78	3.38	0.5
Barium, total	149.	130.	50.9	110.	3
Beryllium, total	0.05	<0.02	<0.02	<0.02	0.5
Cadmium, total	<0.05	<0.05	<0.05	<0.05	1
Chromium, total	1.44	0.76	0.49	0.84	3
Chromium, hexavalent	<0.5	<0.5	<0.5	<0.5	3
Chromium, trivalent	1.44	0.8	0.49	0.8	N/A
Copper, total	7.13	5.21	4.39	6.87	2
Cyanide, available	3.6	3.5	3.5	3.6	2/10
Lead, total	0.17	0.09	0.1	0.21	0.5
Mercury, total	0.00166	0.00182	0.00076	0.0015	0.005/0.0005
Nickel, total	3.16	3.45	2.01	2.64	2
Selenium, total	0.7	0.92	0.35	<0.21	5
Silver, total	<0.05	<0.05	<0.05	<0.05	0.5
Thallium, total	<0.02	<0.02	<0.02	<0.02	0.5
Zinc, total	22.1	27.2	14.5	522.	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)*
	9/30- 10/1/24	9-Oct-24	24-Oct-24	30-Oct-24	
Acrylonitrile	<3.	<3.	<3.	<3.	50
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzene	<1.	<1.	<1.	<1.	10
Benzidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	5
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	10
Bromodichloromethane [Dichlorobromomethane]	2.66	5.97	4.24	3.58	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chlorodibromomethane [Dibromochloromethane]	1.17	2.48	1.46	1.15	10
Chloroform	9.57	30.9	15.6	13.2	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
m-Cresol [3-Methylphenol] [1]	<1.3	<1.3	<1.3	<1.3	10
o-Cresol [2-Methylphenol]	<1.	<1.	<1.	<1.	10
p-Cresol [4-Methylphenol] [1]	<1.3	<1.3	<1.3	<1.3	10
1,2-Dibromoethane	<1.	<1.	<1.	<1.	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.	<1.	<1.	<1.	10
Dichloromethane [Methylene chloride]	<1.	<1.	<1.	<1.	20
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.	<1.	<1.	<1.	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-	-	-	-	---
Ethylbenzene	<1.	<1.	<1.	<1.	10
Ethylene Glycol	-	-	-	-	---
Fluoride	526.	494.	330.	463.	500
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
4,4'-Isopropylidenediphenol (bisphenol A)	-	-	-	-	1
Methyl ethyl ketone	<1.	<1.	<1.	<1.	50
Methyl tert-butyl ether (MTBE)	-	-	-	-	---
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodiethylamine	<5.	<5.	<5.	<5.	20
N-Nitroso-di-n-butylamine	<5.	<5.	<5.	<5.	20
Nonylphenol	<5.	<5.	<5.	<5.	333
Pentachlorobenzene	<3.	<3.	<3.	<3.	20
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	5
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.35	<0.35	<0.35	20

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,2,4,5-Tetrachlorobenzene	<5.	<5.	<5.	<5.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10
Tetrachloroethene [Tetrachloroethylene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	1.07	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10
Trichloroethene [Trichloroethylene]	<1.	<1.	<1.	<1.	10
2,4,5-Trichlorophenol	<0.85	<0.85	<0.85	<0.85	50
TTHM (Total trihalomethanes)	13.4	39.35	21.3	17.93	10
Vinyl chloride	<1.	<1.	<1.	<1.	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.

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 Outfalls 101 and 201.				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)*
			9/30-10/1/24	10/9/24	10/24/24	10/30/24	
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.05	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.883	0.7	0.63	0.69	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.09	-	-	-	—
Sulfite (as SO ₃)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.5	3.75	2.5	2.5	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.05	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.163	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00022	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0984	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9.21	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0237	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0391	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.01	-	-	-	5
Titanium, total*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00657	-	-	-	30
*Reported under 200.8, laboratory accreditation for 200.7.							

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)
	9/30-10/1/24	9-Oct-24	24-Oct-24	30-Oct-24	
Acrolein	<6.	<6.	<6.	<6.	50
Acrylonitrile	<3.	<3.	<3.	<3.	50
Benzene	<1.	<1.	<1.	<1.	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10
Chlorodibromomethane	1.17	2.48	1.46	1.15	10
Chloroethane	<1.	<1.	<1.	<1.	50
2-Chloroethylvinyl ether	<6.	<6.	<6.	<6.	10
Chloroform	9.57	30.9	15.6	13.2	10
Dichlorobromomethane [Bromodichloromethane]	2.66	5.97	4.24	3.58	10
1,1-Dichloroethane	<1.	<1.	<1.	<1.	10
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.	<1.	<1.	<1.	10
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.	<1.	<1.	<1.	10
Ethylbenzene	<1.	<1.	<1.	<1.	10
Methyl bromide [Bromomethane]	<2.	<2.	<2.	<2.	50
Methyl chloride [Chloromethane]	<1.	<1.	<1.	<1.	50
Methylene chloride [Dichloromethane]	<1.	<1.	<1.	<1.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10
Tetrachloroethylene [Tetrachloroethene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	1.07	<1.	<1.	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.	<1.	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10
Trichloroethylene [Trichloroethene]	<1.	<1.	<1.	<1.	10
Vinyl chloride	<1.	<1.	<1.	<1.	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)*	MAI (µg/L)
	30-Sep-24	9-Oct-24	24-Oct-24	30-Oct-24	
2-Chlorophenol	<0.5	<0.5	<0.5	<0.5	10
2,4-Dichlorophenol	<0.69	<0.69	<0.69	<0.69	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
4,6-Dinitro-o-cresol	<0.66	<0.66	<0.66	<0.66	50
2,4-Dinitrophenol	<1.4	<1.4	<1.4	<1.4	50
2-Nitrophenol	<0.88	<0.88	<0.88	<0.88	20
4-Nitrophenol	<1.1	<1.1	<1.1	<1.1	50
p-Chloro-m-cresol	<0.53	<0.53	<0.53	<0.53	10
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	5
Phenol	<0.44	<0.44	<0.44	<0.44	10
2,4,6-Trichlorophenol	<0.79	<0.79	<0.79	<0.79	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)*	MAI (µg/L)
	30-Sep-24	9-Oct-24	24-Oct-24	30-Oct-24	
Acenaphthene	<0.28	<0.28	<0.28	<0.28	10
Acenaphthylene	<0.47	<0.47	<0.47	<0.47	10
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	<0.57	<0.57	<0.57	10
Benzo(ghi)perylene	<0.63	<0.63	<0.63	<0.63	20
Benzo(k)fluoranthene	<0.57	<0.57	<0.57	<0.57	5
Bis(2-chloroethoxy)methane	<0.35	<0.35	<0.35	<0.35	10
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	<0.85	<0.85	<0.85	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	10
4-Bromophenyl phenyl ether	<0.41	<0.41	<0.41	<0.41	10
Butylbenzyl phthalate	<0.69	<0.69	<0.69	<0.69	10
2-Chloronaphthalene	<0.28	<0.28	<0.28	<0.28	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	<0.66	<0.66	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
Dibenzo(a,h)anthracene	<0.69	<0.69	<0.69	<0.69	5
1,2-Dichlorobenzene	<0.41	<0.41	<0.41	<0.41	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
[o-Dichlorobenzene]					
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
Diethyl phthalate	<0.63	<0.63	<0.63	<0.63	10
Dimethyl phthalate	<0.72	<0.72	<0.72	<0.72	10
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
2,4-Dinitrotoluene	<0.97	<0.97	<0.97	<0.97	10
2,6-Dinitrotoluene	<1.2	<1.2	<1.2	<1.2	10
Di-n-octyl phthalate	<2.8	<2.8	<2.8	<2.8	10
1,2-Diphenylhydrazine (as Azobenzene)	<0.22	<0.22	<0.22	-	20
Fluoranthene	<0.44	<0.44	<0.44	<0.44	10
Fluorene	<0.47	<0.47	<0.47	-	10
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	<0.22	<0.22	5
Isophorone	<0.28	<0.28	<0.28	<0.28	10
Naphthalene	<0.31	<0.31	<0.31	<0.31	10
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodimethylamine	<0.79	<0.79	<0.79	<0.79	50
N-Nitrosodi-n-propylamine	<0.72	<0.72	<0.72	<0.72	20
N-Nitrosodiphenylamine	<0.47	<0.47	<0.47	<0.47	20
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Pyrene	<0.57	<0.57	<0.57	<0.57	10
1,2,4-Trichlorobenzene	<0.53	<0.53	<0.53	<0.53	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)
	30-Sep-24	9-Oct-24	24-Oct-24	30-Oct-24	
Aldrin	<0.004	-	-	<0.004	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	-	-	<0.003	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	-	-	<0.004	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	-	-	<0.004	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	-	-	<0.006	0.05
Chlordane	<0.1	-	-	<0.1	0.2
4,4'-DDT	<0.004	-	-	<0.004	0.02
4,4'-DDE	<0.009	-	-	<0.009	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
4,4'-DDD	<0.002	-	-	<0.002	0.1
Dieldrin	<0.005	-	-	<0.005	0.02
Endosulfan I (alpha)	<0.007	-	-	<0.007	0.01
Endosulfan II (beta)	<0.004	-	-	<0.004	0.02
Endosulfan sulfate	<0.005	-	-	<0.005	0.1
Endrin	<0.004	-	-	<0.004	0.02
Endrin aldehyde	<0.003	-	-	<0.003	0.1
Heptachlor	<0.004	-	-	<0.004	0.01
Heptachlor epoxide	<0.004	-	-	<0.004	0.01
PCB 1242	<0.03	<0.0017	<0.0017	<0.0017	0.2
PCB 1254	<0.03	<0.0047	<0.0047	<0.0047	0.2
PCB 1221	<0.03	<0.02	<0.02	<0.02	0.2
PCB 1232	<0.03	<0.0049	<0.0049	<0.0049	0.2
PCB 1248	<0.03	<0.01	<0.01	<0.01	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.1	-	-	<0.1	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 (Rannel) 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.: 001Samples 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
		9/30/24	10/9/24	10/24/24	10/30/24	
Vanadium, total	7440-62-2	4.7	4.19	2.34	3.13	200.8

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.: 002

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24
BOD (5-day)	3.5	<2.	<2.	<2.
CBOD (5-day)	2.2	<2.	<2.	<2.
Chemical oxygen demand	57.	49.	34.	56.
Total organic carbon	11.8	11.1	12.2	11.1
Dissolved oxygen	6.5	6.3	5.8	6.6
Ammonia nitrogen	0.067	0.025	0.112	0.093
Total suspended solids	10.4	10.4	10.4	7.8
Nitrate nitrogen	0.14	0.15	0.187	0.13
Total organic nitrogen	0.883	0.687	1.28	0.808
Total phosphorus	0.85	0.766	1.14	0.677
Oil and grease	<1.61	<1.54	1.54	<1.55
Total residual chlorine	1.	0.5	0.	0.6
Total dissolved solids	1580	1600.	1300.	1680.
Sulfate	203.	205.	241.	227.
Chloride	660.	607.	500.	777.
Fluoride	0.576	0.447	0.54	0.53
Total alkalinity (mg/L as CaCO ₃)	92.1	82.1	78.1	88.1
Temperature (°F)	98.1	92.	86.	92.
pH (standard units)	7.71	8.3	7.4	7.7

Table 2 for Outfall No.: **002**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)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Aluminum, total	48.3	35.6	59.9	31.5	2.5
Antimony, total	0.57	0.57	0.62	0.48	5
Arsenic, total	5.5	5.15	5.03	3.67	0.5
Barium, total	223.	215.	163.	211.	3
Beryllium, total	<0.02	<0.02	<0.02	<0.02	0.5
Cadmium, total	<0.05	0.08	0.06	0.09	1
Chromium, total	2.24	1.86	1.31	0.87	3
Chromium, hexavalent	<0.5	<0.5	0.5	<0.5	3
Chromium, trivalent	1.84	1.66	1.31	0.9	N/A
Copper, total	9.98	11.	17.9	11.2	2
Cyanide, available	3.6	2.7	4.7	2.3	2/10
Lead, total	0.23	0.31	0.31	0.33	0.5
Mercury, total	0.00264	0.00219	0.00399	0.0016	0.005/0.0005
Nickel, total	2.77	2.84	2.58	2.3	2
Selenium, total	0.64	0.6	0.45	0.29	5
Silver, total	<0.05	<0.05	<0.05	<0.05	0.5
Thallium, total	<0.02	<0.02	<0.02	<0.02	0.5
Zinc, total	29.6	169.	27.5	88.7	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.: **002**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)*
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Acrylonitrile	<3.	<3.	<3.	<3.	50
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzene	<1.	<1.	<1.	<1.	10
Benzidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	5
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	10
Bromodichloromethane [Dichlorobromomethane]	18.2	6.07	6.3	4.12	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10
Chlorodibromomethane [Dibromochloromethane]	6.67	1.23	1.81	1.1	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	87.1	33.8	26.4	20.5	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
m-Cresol [3-Methylphenol] [1]	<1.3	<1.3	<1.3	<1.3	10
o-Cresol [2-Methylphenol]	<1.	<1.	<1.	<1.	10
p-Cresol [4-Methylphenol] [1]	<1.3	<1.3	<1.3	<1.3	10
1,2-Dibromoethane	<1.	<1.	<1.	<1.	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.	<1.	<1.	<1.	10
Dichloromethane [Methylene chloride]	<1.	<1.	<1.	<1.	20
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.	<1.	<1.	<1.	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-	-	-	-	---
Ethylbenzene	<1.	<1.	<1.	<1.	10
Ethylene Glycol	-	-	-	-	---
Fluoride	576.	447.	540.	530.	500
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
4,4'-Isopropylidenediphenol (bisphenol A)	-	-	-	-	1
Methyl ethyl ketone	<1.	1.49	<1.	<1.	50
Methyl tert-butyl ether (MTBE)	-	-	-	-	---
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodiethylamine	<5.	<5.	<5.	<5.	20
N-Nitroso-di-n-butylamine	<5.	<5.	<5.	<5.	20
Nonylphenol	<5.	<5.	<5.	<5.	333
Pentachlorobenzene	<3.	<3.	<3.	<3.	20
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	5
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.35	<0.35	<0.35	20
1,2,4,5-Tetrachlorobenzene	<5.	<5.	<5.	<5.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	1.05	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10
Trichloroethene [Trichloroethylene]	<1.	<1.	<1.	<1.	10
2,4,5-Trichlorophenol	<0.85	<0.85	<0.85	<0.85	50
TTHM (Total trihalomethanes)	111.97	41.1	34.51	25.72	10
Vinyl chloride	<1.	<1.	<1.	<1.	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.

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.: **002**

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.: **002**

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)*
			1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.105	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.159	0.255	0.359	0.34	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.01	-	-	-	—
Sulfite (as SO ₃)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.5	5.	2.5	2.5	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.068	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.147	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00023	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.146	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11.9	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0527	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0809	-	-	-	1
Tin, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.01	-	-	-	5
Titanium, total*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00152	-	-	-	30
*Reported under 200.8, laboratory accreditation for 200.7.							

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.: **002**

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)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Acrolein	<6.	<6.	<6.	<6.	50
Acrylonitrile	<3.	<3.	<3.	<3.	50
Benzene	<1.	<1.	<1.	<1.	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10
Chlorodibromomethane	6.67	1.23	1.81	1.1	10
Chloroethane	<1.	<1.	<1.	<1.	50
2-Chloroethylvinyl ether	<6.	<6.	<6.	<6.	10
Chloroform	87.1	33.8	26.4	20.5	10
Dichlorobromomethane [Bromodichloromethane]	18.2	6.07	6.3	4.12	10
1,1-Dichloroethane	<1.	<1.	<1.	<1.	10
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.	<1.	<1.	<1.	10
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.	<1.	<1.	<1.	10
Ethylbenzene	<1.	<1.	<1.	<1.	10
Methyl bromide [Bromomethane]	<2.	<2.	<2.	<2.	50
Methyl chloride [Chloromethane]	<1.	<1.	<1.	<1.	50
Methylene chloride [Dichloromethane]	<1.	<1.	<1.	<1.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10
Tetrachloroethylene [Tetrachloroethene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	1.05	<1.	<1.	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.	<1.	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10

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

* Indicate units if different from µg/L.

Table 9 for Outfall No.: **002**

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)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
2-Chlorophenol	<0.5	<0.5	<0.5	<0.5	10
2,4-Dichlorophenol	<0.69	<0.69	<0.69	<0.69	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
4,6-Dinitro-o-cresol	<0.66	<0.66	<0.66	<0.66	50
2,4-Dinitrophenol	<1.4	<1.4	<1.4	<1.4	50
2-Nitrophenol	<0.88	<0.88	<0.88	<0.88	20
4-Nitrophenol	<1.1	<1.1	<1.1	<1.1	50
p-Chloro-m-cresol	<0.53	<0.53	<0.53	<0.53	10
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	5
Phenol	<0.44	<0.44	<0.44	<0.44	10
2,4,6-Trichlorophenol	<0.79	<0.79	<0.79	<0.79	10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: **002**

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)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Acenaphthene	<0.28	<0.28	<0.28	<0.28	10
Acenaphthylene	<0.47	<0.47	<0.47	<0.47	10
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	<0.57	<0.57	<0.57	10
Benzo(ghi)perylene	<0.63	<0.63	<0.63	<0.63	20
Benzo(k)fluoranthene	<0.57	<0.57	<0.57	<0.57	5
Bis(2-chloroethoxy)methane	<0.35	<0.35	<0.35	<0.35	10
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	<0.85	<0.85	<0.85	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	10
4-Bromophenyl phenyl ether	<0.41	<0.41	<0.41	<0.41	10
Butylbenzyl phthalate	<0.69	<0.69	<0.69	<0.69	10
2-Chloronaphthalene	<0.28	<0.28	<0.28	<0.28	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	<0.66	<0.66	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
Dibenzo(a,h)anthracene	<0.69	<0.69	<0.69	<0.69	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	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]	<0.53	<0.53	<0.53	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
Diethyl phthalate	<0.63	<0.63	<0.63	<0.63	10
Dimethyl phthalate	<0.72	<0.72	<0.72	<0.72	10
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
2,4-Dinitrotoluene	<0.97	<0.97	<0.97	<0.97	10
2,6-Dinitrotoluene	<1.2	<1.2	<1.2	<1.2	10
Di-n-octyl phthalate	<2.8	<2.8	<2.8	<2.8	10
1,2-Diphenylhydrazine (as Azobenzene)	-	-	-	-	20
Fluoranthene	<0.44	<0.44	<0.44	<0.44	10
Fluorene	-	-	-	-	10
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	<0.22	<0.22	5
Isophorone	<0.28	<0.28	<0.28	<0.28	10
Naphthalene	<0.31	<0.31	<0.31	<0.31	10
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodimethylamine	<0.79	<0.79	<0.79	<0.79	50
N-Nitrosodi-n-propylamine	<0.72	<0.72	<0.72	<0.72	20
N-Nitrosodiphenylamine	<0.47	<0.47	<0.47	<0.47	20
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Pyrene	<0.57	<0.57	<0.57	<0.57	10
1,2,4-Trichlorobenzene	<0.53	<0.53	<0.53	<0.53	10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: **002**

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)
	1-Oct-24	9-Oct-24	24-Oct-24	30-Oct-24	
Aldrin	<0.004	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	-	-	-	0.05
Chlordane	<0.102	-	-	-	0.2
4,4'-DDT	<0.004	-	-	-	0.02
4,4'-DDE	<0.009	-	-	-	0.1
4,4'-DDD	<0.002	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.005	-	-	-	0.02
Endosulfan I (alpha)	<0.007	-	-	-	0.01
Endosulfan II (beta)	<0.004	-	-	-	0.02
Endosulfan sulfate	<0.005	-	-	-	0.1
Endrin	<0.004	-	-	-	0.02
Endrin aldehyde	<0.003	-	-	-	0.1
Heptachlor	<0.004	-	-	-	0.01
Heptachlor epoxide	<0.004	-	-	-	0.01
PCB 1242	<0.03	<0.0017	<0.0017	<0.0017	0.2
PCB 1254	<0.03	<0.0047	<0.0047	<0.0047	0.2
PCB 1221	<0.03	<0.02	<0.02	<0.02	0.2
PCB 1232	<0.03	<0.0049	<0.0049	<0.0049	0.2
PCB 1248	<0.03	<0.01	<0.01	<0.01	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.102	-	-	-	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.: 002Samples 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
		10/1/24	10/9/24	10/24/24	10/30/24	
Vanadium, total	7440-62-2	4.24	3.99	3.93	2.95	200.8

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)
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24
BOD (5-day)	<2.	3.64	2.61	2.33
CBOD (5-day)	<2.	2.84	2.6	2.32
Chemical oxygen demand	34.	72.	58.	51.
Total organic carbon	15.	14.5	17.8	14.9
Dissolved oxygen	8.2	6.7	7.3	7.8
Ammonia nitrogen	0.601	0.277	0.288	0.073
Total suspended solids	10.4	25.6	14.8	6.
Nitrate nitrogen	0.438	0.751	0.509	0.426
Total organic nitrogen	1.09	1.13	1.13	1.16
Total phosphorus	1.1	1.13	0.98	1.17
Oil and grease	<1.55	<1.53	<1.54	<1.6
Total residual chlorine	0.02	0.1	0.1	0.1
Total dissolved solids	680.	676.	800.	814.
Sulfate	240.	251.	258.	280.
Chloride	122.	141.	156.	164.
Fluoride	0.572	0.807	0.986	0.773
Total alkalinity (mg/L as CaCO ₃)	70.1	74.	70.1	86.1
Temperature (°F)	77.	75.4	75.	74.3
pH (standard units)	7.11	7.99	7.09	7.91

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)
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
Aluminum, total	111.	123.	92.9	69.7	2.5
Antimony, total	1.5	1.14	1.37	1.81	5
Arsenic, total	6.15	5.85	6.16	5.18	0.5
Barium, total	149.	149.	172.	173.	3
Beryllium, total	0.04	0.03	0.03	0.03	0.5
Cadmium, total	0.22	0.1	<0.05	0.07	1
Chromium, total	1.36	1.08	1.21	1.73	3
Chromium, hexavalent	0.6	<0.5	<0.5	<0.5	3
Chromium, trivalent	0.8	1.08	1.2	1.73	N/A
Copper, total	3.48	4.01	4.01	5.81	2
Cyanide, available	4.2	4.	4.3	2.7	2/10
Lead, total	1.19	1.09	1.06	2.09	0.5
Mercury, total	0.00213	0.0044	0.00417	0.00371	0.005/0.0005
Nickel, total	3.74	3.46	3.83	4.05	2
Selenium, total	0.84	0.39	0.61	0.99	5
Silver, total	<0.05	<0.05	<0.05	0.06	0.5
Thallium, total	<0.02	<0.02	<0.02	0.03	0.5
Zinc, total	102.	128.	144.	234.	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.: **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)*
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
Acrylonitrile	<3.	<3.	<3.	<3.	50
Anthracene	<0.35	<0.35	<0.35	<1.8	10
Benzene	<1.	<1.	<1.	<1.	10
Benidine	<0.66	<0.66	<0.66	<3.3	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<1.9	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<4.3	5
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<3.6	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<11.	10
Bromodichloromethane [Dichlorobromomethane]	<1.	<1.	<1.	1.03	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10
Chlorodibromomethane [Dibromochloromethane]	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Chloroform	3.94	5.34	6.77	6.94	10
Chrysene	<0.57	<0.57	<0.57	<2.9	5
m-Cresol [3-Methylphenol] [1]	<1.3	<1.3	<1.3	<6.6	10
o-Cresol [2-Methylphenol]	<1.	<1.	<1.	<5.	10
p-Cresol [4-Methylphenol] [1]	<1.3	<1.3	<1.3	<6.6	10
1,2-Dibromoethane	<1.	<1.	<1.	<1.	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.53	<0.53	<2.7	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<2.1	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<1.3	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<4.4	5
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.	<1.	<1.	<1.	10
Dichloromethane [Methylene chloride]	<1.	<1.	<1.	<1.	20
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.	<1.	<1.	<1.	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<2.7	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.2	<6.1	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-	-	-	-	---
Ethylbenzene	<1.	<1.	<1.	<1.	10
Ethylene Glycol	-	-	-	-	---
Fluoride	572.	807.	986.	773.	500
Hexachlorobenzene	<0.69	<0.69	<0.69	<3.5	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<2.1	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<1.8	10
Hexachloroethane	<0.47	<0.47	<0.47	<2.4	20
4,4'-Isopropylidenediphenol (bisphenol A)	-	-	-	-	1
Methyl ethyl ketone	<1.	<1.	<1.	<1.	50
Methyl tert-butyl ether (MTBE)	-	-	-	-	---
Nitrobenzene	<0.91	<0.91	<0.91	<4.6	10
N-Nitrosodiethylamine	<5.	<5.	<5.	<25.	20
N-Nitroso-di-n-butylamine	<5.	<5.	<5.	<25.	20
Nonylphenol	<5.	<5.	<5.	<25.	333
Pentachlorobenzene	<3.	<3.	<3.	<15.	20
Pentachlorophenol	<0.5	<0.5	<0.5	<2.5	5
Phenanthrene	<0.44	<0.44	<0.44	<2.2	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.35	<0.35	<1.8	20
1,2,4,5-Tetrachlorobenzene	<5.	<5.	<5.	<25.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Tetrachloroethene [Tetrachloroethylene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	<1.	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10
Trichloroethene [Trichloroethylene]	<1.	<1.	<1.	<1.	10
2,4,5-Trichlorophenol	<0.85	<0.85	<0.85	<4.3	50
TTHM (Total trihalomethanes)	3.94	5.34	6.77	7.97	10
Vinyl chloride	<1.	<1.	<1.	<1.	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.

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)	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.: **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)*
			11-Nov-24	11/18/24	11/25/24	12/17/24	
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.184	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.436	0.497	0.562	0.56	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.01	-	-	-	—
Sulfite (as SO ₃)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.	2.5	<2.5	2.5	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.05	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.158	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.00036	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.71	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.78	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0543	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.09	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.01	-	-	-	5
Titanium, total*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.005	-	-	-	30
*Reported under 200.8, laboratory accreditation for 200.7.							

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)* 11-Nov-24	Sample 2 (µg/L)* 18-Nov-24	Sample 3 (µg/L)* 25-Nov-24	Sample 4 (µg/L)* 17-Dec-24	MAL (µg/L)
Acrolein	<6.	<6.	<6.	<6.	50
Acrylonitrile	<3.	<3.	<3.	<3.	50
Benzene	<1.	<1.	<1.	<1.	10
Bromoform	<1.	<1.	<1.	<1.	10
Carbon tetrachloride	<1.	<1.	<1.	<1.	2
Chlorobenzene	<1.	<1.	<1.	<1.	10
Chlorodibromomethane	<1.	<1.	<1.	<1.	10
Chloroethane	<1.	<1.	<1.	<1.	50
2-Chloroethylvinyl ether	<6.	<6.	<6.	<6.	10
Chloroform	3.94	5.34	6.77	6.94	10
Dichlorobromomethane [Bromodichloromethane]	<1.	<1.	<1.	1.03	10
1,1-Dichloroethane	<1.	<1.	<1.	<1.	10
1,2-Dichloroethane	<1.	<1.	<1.	<1.	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.	<1.	<1.	<1.	10
1,2-Dichloropropane	<1.	<1.	<1.	<1.	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.	<1.	<1.	<1.	10
Ethylbenzene	<1.	<1.	<1.	<1.	10
Methyl bromide [Bromomethane]	<2.	<2.	<2.	<2.	50
Methyl chloride [Chloromethane]	<1.	<1.	<1.	<1.	50
Methylene chloride [Dichloromethane]	<1.	<1.	<1.	<1.	20
1,1,2,2-Tetrachloroethane	<1.	<1.	<1.	<1.	10
Tetrachloroethylene [Tetrachloroethene]	<1.	<1.	<1.	<1.	10
Toluene	<1.	<1.	<1.	<1.	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.	<1.	<1.	<1.	10
1,1,1-Trichloroethane	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Trichloroethylene [Trichloroethene]	<1.	<1.	<1.	<1.	10
Vinyl chloride	<1.	<1.	<1.	<1.	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)
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
2-Chlorophenol	<0.5	<0.5	<0.5	<2.5	10
2,4-Dichlorophenol	<0.69	<0.69	<0.69	<3.5	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<2.7	10
4,6-Dinitro-o-cresol	<0.66	<0.66	<0.66	<3.3	50
2,4-Dinitrophenol	<1.4	<1.4	<1.4	<7.1	50
2-Nitrophenol	<0.88	<0.88	<0.88	<4.4	20
4-Nitrophenol	<1.1	<1.1	<1.1	<5.7	50
p-Chloro-m-cresol	<0.53	<0.53	<0.53	<2.7	10
Pentachlorophenol	<0.5	<0.5	<0.5	<2.5	5
Phenol	<0.44	<0.44	<0.44	<2.2	10
2,4,6-Trichlorophenol	<0.79	<0.79	<0.79	<4.	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)
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
Acenaphthene	<0.28	<0.28	<0.28	<1.4	10
Acenaphthylene	<0.47	<0.47	<0.47	<2.4	10
Anthracene	<0.35	<0.35	<0.35	<1.8	10
Benzidine	<0.66	<0.66	<0.66	<3.3	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<1.9	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<4.3	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	<0.57	<0.57	<2.9	10
Benzo(ghi)perylene	<0.63	<0.63	<0.63	<3.2	20
Benzo(k)fluoranthene	<0.57	<0.57	<0.57	<2.9	5
Bis(2-chloroethoxy)methane	<0.35	<0.35	<0.35	<1.8	10
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<3.6	10
Bis(2-chloroisopropyl)ether	<0.85	<0.85	<0.85	<4.3	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<11.	10
4-Bromophenyl phenyl ether	<0.41	<0.41	<0.41	<2.1	10
Butylbenzyl phthalate	<0.69	<0.69	<0.69	<3.5	10
2-Chloronaphthalene	<0.28	<0.28	<0.28	<1.4	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	<0.66	<3.3	10
Chrysene	<0.57	<0.57	<0.57	<2.9	5
Dibenzo(a,h)anthracene	<0.69	<0.69	<0.69	<3.5	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.41	<0.41	<2.1	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]	<0.53	<0.53	<0.53	<2.7	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<1.3	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<4.4	5
Diethyl phthalate	<0.63	<0.63	<0.63	<3.2	10
Dimethyl phthalate	<0.72	<0.72	<0.72	<3.6	10
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<6.1	10
2,4-Dinitrotoluene	<0.97	<0.97	<0.97	<4.9	10
2,6-Dinitrotoluene	<1.2	<1.2	<1.2	<6.1	10
Di-n-octyl phthalate	<2.8	<2.8	<2.8	<14.	10
1,2-Diphenylhydrazine (as Azobenzene)	-	-	-	-	20
Fluoranthene	<0.44	<0.44	<0.44	<2.2	10
Fluorene	-	-	-	-	10
Hexachlorobenzene	<0.69	<0.69	<0.69	<3.5	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<2.1	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<1.8	10
Hexachloroethane	<0.47	<0.47	<0.47	<2.4	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	<0.22	<1.1	5
Isophorone	<0.28	<0.28	<0.28	<1.4	10
Naphthalene	<0.31	<0.31	<0.31	<1.6	10
Nitrobenzene	<0.91	<0.91	<0.91	<4.6	10
N-Nitrosodimethylamine	<0.79	<0.79	<0.79	<4.	50
N-Nitrosodi-n-propylamine	<0.72	<0.72	<0.72	<3.6	20
N-Nitrosodiphenylamine	<0.47	<0.47	<0.47	<2.4	20
Phenanthrene	<0.44	<0.44	<0.44	<2.2	10
Pyrene	<0.57	<0.57	<0.57	<2.9	10
1,2,4-Trichlorobenzene	<0.53	<0.53	<0.53	<2.7	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)
	11-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
Aldrin	<0.004	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	-	-	-	0.05
Chlordane	<0.1	-	-	-	0.2
4,4'-DDT	<0.004	-	-	-	0.02
4,4'-DDE	<0.009	-	-	-	0.1
4,4'-DDD	<0.002	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)
Dieldrin	<0.005	-	-	-	0.02
Endosulfan I (alpha)	<0.007	-	-	-	0.01
Endosulfan II (beta)	<0.004	-	-	-	0.02
Endosulfan sulfate	<0.005	-	-	-	0.1
Endrin	<0.004	-	-	-	0.02
Endrin aldehyde	<0.003	-	-	-	0.1
Heptachlor	<0.004	-	-	-	0.01
Heptachlor epoxide	<0.004	-	-	-	0.01
PCB 1242	<0.0017	<0.0017	<0.0017	<0.0017	0.2
PCB 1254	<0.0047	<0.0047	<0.0047	<0.0047	0.2
PCB 1221	<0.02	<0.02	<0.02	<0.02	0.2
PCB 1232	<0.0049	<0.0049	<0.0049	<0.0049	0.2
PCB 1248	<0.01	<0.01	<0.01	<0.01	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.1	-	-	-	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.: 004Samples 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-Nov-24	18-Nov-24	25-Nov-24	17-Dec-24	
Vanadium, total	7440-62-2	5.62	5.52	5.63	4.37	200.8

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: N/A
- 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 ☒ No

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)

- a. Name of the immediate receiving waters: Phillips Ditch (Outfalls 001, 002, 004, 005)
- 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: TCEQ 2020 TPDES permit fact sheet (pg. 13)

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Santa Anna Bayou, Houston Ship Channel / San Jacinto River Tidal in Segment No. 1005 of the San Jacinto River Basin

- 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: Phillips Ditch is a man-made uniform channel that discharges into Santa Anna Bayou about a mile downstream of the outfalls. Santa Anna Bayou is a natural and larger water body.

- f. General observations of the water body during normal dry weather conditions: Water in Phillips Ditch at the outfalls was clear with no visible solids or contamination. Small fishes and turtles observed in Phillips Ditch.

Date and time of observation: 4/14/25, 9:45 AM

- 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 checked="" type="checkbox"/> other, specify: <u>Phillips Ditch is used to convey industrial wastewater and stormwater.</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:** N/A

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 (via Vince Bayou Receiving Station)

TCEQ Permit/Registration Number: WQ0001740000

County where disposal site is located: Harris

Other facilities/services that may be used: City of Galveston Main WWTP (WQ0010688001),
Downstream Environmental LLC (2298A)

c. Method of sewage sludge transportation:

☒ truck ☐ train ☐ pipe ☐ other: N/A

TCEQ Hauler Registration Number: Texas Outhouse, Registration No. 22739

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: N/A. The sewage waste transporter and disposal facility are both licensed/registered by the TCEQ (as noted above). Records related to this waste activity are routinely reviewed during TCEQ waste and wastewater inspections.

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.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

☒ Yes ☐ No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
005	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, stop here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, proceed.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility's boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems

- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

☐ Check the box to confirm all above information was provided on the facility site map(s).

Attachment: T-2 Site Diagram

Item 4. Facility/Site Information (Instructions, Page 90)

- a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
005	108,490 ft ²	3,659,292 ft ²

- b. Provide the following local area rainfall information and the source of the information.

Wettest month: June

Average rainfall for wettest month (total inches): 5.84 inches [1]

25-year, 24-hour rainfall (inches): 9.8 inches [2]

Source: [1] Climatology of the United States No. 81, Supplement No. 1, June 2002; [2] Technical Paper No. 40, Rainfall Frequency Atlas of the United States, U.S. Department of Commerce, 1961

- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** T-1 Facility Description, Outfall 005
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** T-1 Facility Description, Outfall 005
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: See Attachment T-1 Facility Description, Outfall 005

Item 5. Pollutant Analysis (Instructions, Page 91)

- 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): 01/12/2025
- b. ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: 005

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	7.4 (max)	—	— (min)	—	1	—
Total suspended solids	8.	—	—	—	1	—
Chemical oxygen demand	18.	—	—	—	1	—
Total organic carbon	4.18	—	—	—	1	—
Oil and grease	<1.6	—	—	—	1	—
Arsenic, total	0.00067	—	—	—	1	0.0005
Barium, total	0.0511	—	—	—	1	0.003
Cadmium, total	<0.00005	—	—	—	1	0.001
Chromium, total	0.00108	—	—	—	1	0.003
Chromium, trivalent	0.00108	—	—	—	1	—
Chromium, hexavalent	<0.0005	—	—	—	1	0.003
Copper, total	0.00197	—	—	—	1	0.002
Lead, total	0.0004	—	—	—	1	0.0005
Mercury, total	0.00168	—	—	—	1	0.000005
Nickel, total	0.00094	—	—	—	1	0.002
Selenium, total	0.00036	—	—	—	1	0.005
Silver, total	<0.00005	—	—	—	1	0.0005
Zinc, total	0.0125	—	—	—	1	0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

- d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: 005

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled
Aluminum	0.323	—	—	—	1
BOD5	<2.	—	—	—	1
Boron, total	0.0442	—	—	—	1
Bromide	0.06	—	—	—	1
Cobalt, total	0.00019	—	—	—	1
Color	30.	—	—	—	1
Iron, total	0.373	—	—	—	1
Magnesium, total	4.1	—	—	—	1

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled
Manganese, total	0.00985	—	—	—	1
Molybdenum, total	0.00191	—	—	—	1
Nitrate-nitrite	0.336	—	—	—	1
Phosphorus, total	0.04	—	—	—	1
Surfactants	<0.05	—	—	—	1
Tin, total	<0.01	—	—	—	1
Titanium, total***	0.00247	—	—	—	1
Vanadium, total	0.00155	—	—	—	1

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

*** Reported under 200.8. Laboratory accreditation for 200.7.

Attachment: N/A

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: 01/12/25

Duration of storm event (minutes): 360

Total rainfall during storm event (inches): 0.28

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): 28.5

Maximum flow rate during rain event (gallons/minute): 2200

Total stormwater flow from rain event (gallons): 4,862,000

Provide a description of the method of flow measurement or estimate:

Flow estimated using pipe diameter and hours of discharge.

Table 1. Wastewater Sources and Flows by Outfall

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1] and Percent of Production	
001		Process Wastewater	1.838	46.2%	40 CFR 414, Subpart D (100%)	
		PP Process	0.733			
		PE R-701 / sump	0.115			
		PE Process	0.750			
		Gemini PE	0.040			
		Reactor treaters (R-621/634/678/691), PE flare knock-out	included in above			
		Washdown water	0.200			
		Utility Wastewater	1.294	32.5%	N/A	
		Cooling tower blowdown	0.173			
		Boiler reject	0.438			
		Water treatment (RO reject, demin, zeolite filter)	0.115			
		Steam condensate	0.568			
		Minor wastewaters (air conditioning condensate, fire water system testing/flushing, potable water line flushing)	included in above			
		Railcar Wash Water	0.001			0.03%
		Stormwater	0.818	20.6%		
		Sanitary Wastewater		0.7%		
	101	PP Unit	0.004			
	201	PE Unit	0.025			
		Outfall 001 Total	3.98	100%		
002		Stormwater, utility wastewater	Intermittent and variable	N/A	N/A	
004		Stormwater, utility wastewater	Intermittent and variable	N/A	N/A	
005		Stormwater	Intermittent and variable	N/A	N/A	
Notes						
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins					
N/A	Not applicable					

ATTACHMENT T-1

INEOS USA LLC

INEOS POLYETHYLENE NORTH AMERICA LA PORTE PLANT

FACILITY DESCRIPTION

WASTEWATER SYSTEM AND OUTFALLS	2
OUTFALL 001.....	2
<i>Aluminum Treatment System.....</i>	<i>2</i>
<i>Non-Aluminum Treatment System.....</i>	<i>3</i>
<i>Sanitary Wastewater Treatment.....</i>	<i>3</i>
UTILITY WASTEWATERS.....	4
OUTFALL 002.....	5
OUTFALL 004.....	5
OUTFALL 005.....	5
SPILL MANAGEMENT	5
WATER SUPPLY.....	6
EFFLUENT GUIDELINES.....	7

TABLE 1. OUTFALL 001 WASTEWATERS

FIGURE 1. WASTEWATER FLOW DIAGRAM INEOS LA PORTE PLANT

INEOS USA LLC

INEOS POLYETHYLENE NORTH AMERICA LA PORTE PLANT

FACILITY DESCRIPTION

This document describes the INEOS Polyethylene North America La Porte Plant in relation to its wastewater discharge TPDES permit WQ0000544000. This description includes outfall locations and wastewaters discharged, wastewater and storm water management, and applicability of national effluent guidelines.

WASTEWATER SYSTEM AND OUTFALLS

A schematic of the wastewater system covered by INEOS's TPDES permit is shown in Figure 1. There are six wastewater outfalls authorized by the TPDES permit – four final outfalls (001, 002, 004, 005) and two internal outfalls (101, 201). Outfall 001 is the main outfall, which discharges treated process wastewater. A breakdown of the wastewater flows for Outfall 001 is provided in Table 1. Outfall 002 discharges primarily storm water, but also minor amounts of utility wastewaters. Outfall 004 discharges utility wastewater and storm water. Outfalls 101 and 201 discharge treated sanitary wastewater to Outfall 001. Outfall 005 discharges storm water.

Outfall 001

Outfall 001 discharges treated process wastewater, utility water, treated sanitary wastewater, and storm water. Outfall 001 is the discharge from the Wastewater Treatment Pond (Pond 1), originally a single pond that was converted later into two treatment trains, the Aluminum Treatment System and the Non-Aluminum Treatment System. The Aluminum Treatment System consists now of constructed treatment sumps and tanks, so it no longer considered an impoundment.

Outfall 001 also receives railcar wash water from the washing and drying of hopper cars used for plastic pellet transportation. Prior to washing the hopper car, it is vacuumed to remove residual amounts of pellets. Plant water (non-potable) is then used to wash the interior. The process uses a closed-loop pump system. The discharge from the pump is filtered, goes into each car using spinner wash nozzles, and then returns to the same sump or pump suction area. No chemicals or soaps or greases are used in the process. The cars are dried using heated drying air. The wash water is then routed to the inlet sump to the Outfall 001 treatment system, with ultimate discharge through Outfall 001, then the railcar wash system is refilled with clean make-up water. The railcar wash water is never routed, directly or indirectly, to the other outfalls.

Aluminum Treatment System

Process, utility, process pellet water, cooling tower blowdown, boiler reject, and treated sanitary wastewater from the PP unit is collected in the lift sump in the PP area. The wastewater is pumped from the lift sump to the Demineralizer Pit (Demin Pit) where it combines with reverse

osmosis (RO) reject water. The wastewater is pumped from the Demin Pit to the Aluminum Treatment System.

Wastewater from the Demin Pit commingles with wastewater from the R-701 system and enters the equalization basin for the Aluminum Treatment System. A portion of another PE process wastewater stream may be directed to the Aluminum Treatment System (the remainder goes to the Non-Aluminum Treatment System). After entering the equalization basin, the pH is adjusted. The wastewater is then distributed among three clarifiers for solids settling and separation. Sludge from the clarifiers is removed to the sludge pit. The clarified wastewater passes through a disk filter for additional solids removal. Water treated in the Aluminum Treatment System combines with wastewater from the Non-Aluminum Treatment System prior to discharge through Outfall 001.

Non-Aluminum Treatment System

Process, utility, and treated sanitary wastewater from the PE unit is collected in the equalization basin of the Non-Aluminum Treatment System where the pH is adjusted as necessary. Pellets and flake are skimmed from the wastewater using pontoon skimmers. The pellets and flake are removed in a hydro-sieve and the water is sent back to the beginning of the non-aluminum treatment process. From the non-aluminum equalization basin, the treated water is pumped to spray nozzles for temperature control. The water then commingles with the treated water from the Aluminum Treatment System and is discharged through Outfall 001.

Sanitary Wastewater Treatment

Sanitary wastewater is treated in two activated sludge package units. Sanitary wastewater is generated from personal use facilities such as sinks, showers, and toilets. The PE package plant has a design capacity of 25,000 gallons per day (gpd). The design capacity of the PP package plant is 4,000 gpd. Disinfection for the larger PE unit is by chlorination or ultraviolet (UV). The smaller PP unit uses chlorination for disinfection, but UV and an alternate disinfection method may be used in the future. The discharge from the PE and PP units are Internal Outfalls 201 and 101, respectively, in the TPDES permit.

The treatment process is similar for both package plants. Each unit includes a bar rack screen, equalization chamber, aeration chamber, clarifier, and disinfection unit. Solids removed by the bar screen are transferred into nearby containers. The PE unit also includes a grinder pump (comminutor) to reduce particle sizes to promote biodegradation. Floating solids are skimmed off the clarifier surface and returned to the aeration tank. Waste clarifier sludge (biosolids) from the units are removed periodically and sent offsite for disposal.

The PE package plant also receives sanitary wastewater from an adjacent facility, Solvay Chemicals, Inc.¹ Solvay may discharge up to 1,400 gpd of sanitary wastewater to INEOS. The sanitary wastewater received from Solvay is not subject to 40 CFR 437 (Centralized Waste

¹ Solvay Chemicals, Inc., 1130 Independence Parkway South, La Porte, TX 77571

Treatment related to off-site wastewaters) because sanitary wastewater is excluded at §437.1(b)(4).

In August 2022, INEOS installed an in-kind replacement of the PE package plant; the old unit was demolished. INEOS received approval for the closure of the old PE package plant and replacement with the new from the TCEQ² on May 26, 2022.

Utility Wastewaters

The primary utility wastewaters are cooling tower blowdown, boiler reject, steam condensate, and wastewaters from water treatment. Water treatment wastewaters include RO reject/cleaning wastewaters and demineralizer and zeolite filter regenerant wastewaters. Other minor utility wastewaters include air conditioning condensates, fire water system testing and flushing wastewaters, and potable water line flushing. Utility wastewaters are discharged via Outfalls 001, 002, and 004. Utility wastewaters are discharged primarily through Outfalls 001 and 004 and minor amounts of utility wastewaters may be discharged through Outfalls 002.

For Outfall 001, utility wastewater includes cooling tower blowdown, cooling water, and cooling system maintenance wastewaters; boiler (PP Unit) blowdown/reject and maintenance wastewaters; steam condensate; water treatment wastewaters (RO reject, RO cleaning, demineralizer, zeolite filter); air conditioning condensates; fire water system testing, maintenance, and flushing wastewater; potable water line flushing, testing, and maintenance wastewater; washdown water of paving and equipment (unit and ancillary) from the PE Unit area; and releases from utility water equipment for freeze protection or as a result of equipment damage due to freezing.

For Outfall 002, utility wastewater includes cooling tower blowdown, cooling water, and cooling system maintenance wastewaters; boiler blowdown/reject and maintenance wastewaters; steam condensate; air conditioning condensate; fire water system testing, maintenance, and flushing wastewater; potable water line flushing, testing, and maintenance wastewater; washdown water of paving and equipment (unit and ancillary) in the PE Unit area; and releases from utility water equipment for freeze protection or as a result of equipment damage due to freezing.

For Outfall 004, utility wastewater includes cooling tower blowdown cooling water, and cooling system maintenance wastewaters; boiler blowdown/reject and maintenance wastewaters; steam condensate; air conditioning condensates; fire water system testing, maintenance, and flushing wastewater; potable water line flushing, testing, and maintenance wastewater; water treatment wastewater (Ro reject, RO cleaning, demineralizer, zeolite filter); washdown water of pavement and equipment (unit and ancillary) from the PP Unit and Gemini PE Unit areas; and releases from utility water equipment for freeze protection or as a result of equipment damage due to freezing. It does not include washdown water from the PE Unit process areas that have the potential to be contaminated.

² Jose Alfonso Martinez, TCEQ, Water Quality Division

Outfall 002

Outfall 002 is the discharge from the Storm Water Treatment Pond (Pond 2). Utility waters and storm water from the PE process and pellet loading areas are routed to an inlet sump in the pond. Washdown of process and related areas is only conducted during dry weather. During dry weather, water is routed from the Storm Water Treatment Pond inlet sump via skimmers to the DAF inlet of the Non-Aluminum Treatment System. The DAF inlet has skimmers that route suspended pellet and flake to a hydro-sieve.

During wet weather, storm water and utility waters commingle in the Storm Water Treatment Pond inlet sump and during higher storm flows, will overflow into the larger portion of the Storm Water Treatment Pond. The commingled waters are routed to the Non-Aluminum Treatment System via skimmers in the pond; however, when storm flows are high enough, excess flow will discharge from the Storm Water Treatment Pond via Outfall 002.

Outfall 004

Storm water and utility wastewater flow to the six million gallon Containment Basin (Pond 4). The Containment Basin is equipped with fixed underflow/overflow baffles and is continuously skimmed to minimize floating solids from entering the outfall discharge. The basin has fixed underflow baffles in three sections to prevent the discharge of floating solids.

Outfall 005

Outfall 005 is the discharge from the Storm Water Pond (Pond 5). The Storm Water Pond receives storm water from the rail loading and transfer area and undeveloped area in the southeast section of the property. Repair of rails is also conducted in this area, but the repairs produces no wastewater. Secondary containment is used during unloading of pellets. Silt fences and booms are used as necessary to remove floating solids (polymer pellet) prior to discharge.

Spill Management

As described in the Effluent Guidelines section, INEOS operates manufacturing processes that generate wastewaters regulated by the OCPSF effluent limitations guidelines. These manufacturing processes and supporting activities generate process wastewaters as that term is defined at 40 CFR 401.11(q) and 40 CFR 122.1. This definition is:

“The term *process waste water* means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.”

When EPA developed the OCPSF ELG it used a wastewater database that it compiled under its Clean Water Act Section 308 authority. It reviewed this database and designated a number of wastewater streams that were not directly generated in the manufacturing processes as process wastewater because they met the 40 CFR 401.11(q) definition. It refers to these wastewater

sources in the OCPSF Development Document Table VII-50 as Contaminated “Nonprocess” Wastewaters (therefore designated as process wastewater).³ The list of these “designated” process wastewaters include terms such as contaminated water offsite, landfill leachate, contaminated groundwater, unit washes, non-contact floor cleaning, laboratory and vacuum truck, other company offsite waste, slop water from distribution facilities, area wash down and contact rainwater. There were a total of seventy-six (76) such streams that EPA designated as process wastewater for inclusion in the development of the OCPSF ELG. The importance of this listing is not the individual entries, but the fact that EPA’s intent is to define process wastewater broadly, including any water that comes into contact with raw materials, intermediate product, finished product, by-product, or waste product at an OCPSF manufacturing plant.

Leaks and spills occur at all manufacturing plants, including those subject to the OCPSF ELG. Section 304(e) of the Clean Water Act (CWA) acknowledges that spills and leaks occur and authorizes controls on point sources in addition to ELG to address these and other sources of pollutants. These controls are implemented as best management practices (BMP) that include cleanup and treatment of spills in onsite treatment units in compliance with all permit limits and conditions.

Wastewater generated during the management, washdown and clean-up of these leaks and spills is considered to be process wastewater and is treated in the on-site treatment system and subsequently is discharged as authorized by the TPDES permit. Minor equipment leaks are included in the application as a component of process area wash down and storm water runoff from all process areas. Wastewater generated from spills and wash down that meets the definition of process wastewater can be treated and discharged in compliance with all permit limits and conditions.

WATER SUPPLY

The facility uses both surface water and groundwater for its water supply. The main water supply for process utility water is provided by Coastal Water Authority (CWA). INEOS purchases surface water from CWA via the Battleground Water Company. Battleground Water Supply is a partnership of several local industrial facilities, including INEOS, that provides water from the CWA. Battleground Water Supply has Public Water System (PWS) ID TX1013432. CWA meters the purchased surface water to the Battleground Water Company. The water is then transported from the Battleground Water Company to INEOS through a 10-inch pipeline, thence throughout the site. This surface water is used for production processes, cooling, boiler feed, fire protection, and miscellaneous purposes. On-site groundwater mainly supplies water for potable use, although it can be used, if needed, for process utility water.

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. 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.

³ EPA, October 1987, *Development Document for Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category*, EPA 440/1-87/009, Office of Water, Washington, D.C.

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).

EFFLUENT GUIDELINES

National effluent guidelines apply to the polyethylene (PE) and polypropylene (PP) process wastewaters, specifically, guidelines for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) industry at 40 CFR 414, Subpart D (Thermoplastic Resins) and Subpart J (Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment). Process wastewater flow rates are given in Table 1.

Table 1. Wastewater Sources and Flows by Outfall

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1] and Percent of Production
001		Process Wastewater	1.838	46.2%	40 CFR 414, Subpart D (100%)
		PP Process	0.733		
		PE R-701 / sump	0.115		
		PE Process	0.750		
		Gemini PE	0.040		
		Reactor treaters (R-621/634/678/691), PE flare knock-out	included in above		
		Washdown water	0.200		
		Utility Wastewater	1.294	32.5%	N/A
		Cooling tower blowdown	0.173		
		Boiler reject	0.438		
		Water treatment (RO reject, demin, zeolite filter)	0.115		
		Steam condensate	0.568		
		Minor wastewaters (air conditioning condensate, fire water system testing/flushing, potable water line flushing)	included in above		
		Railcar Wash Water	0.001		
		Stormwater	0.818	20.6%	
		Sanitary Wastewater		0.7%	
	101	PP Unit	0.004		
	201	PE Unit	0.025		
		Outfall 001 Total	3.98	100%	
002		Stormwater, utility wastewater	Intermittent and variable	N/A	N/A
004		Stormwater, utility wastewater	Intermittent and variable	N/A	N/A
005		Stormwater	Intermittent and variable	N/A	N/A
Notes					
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins				
N/A	Not applicable				

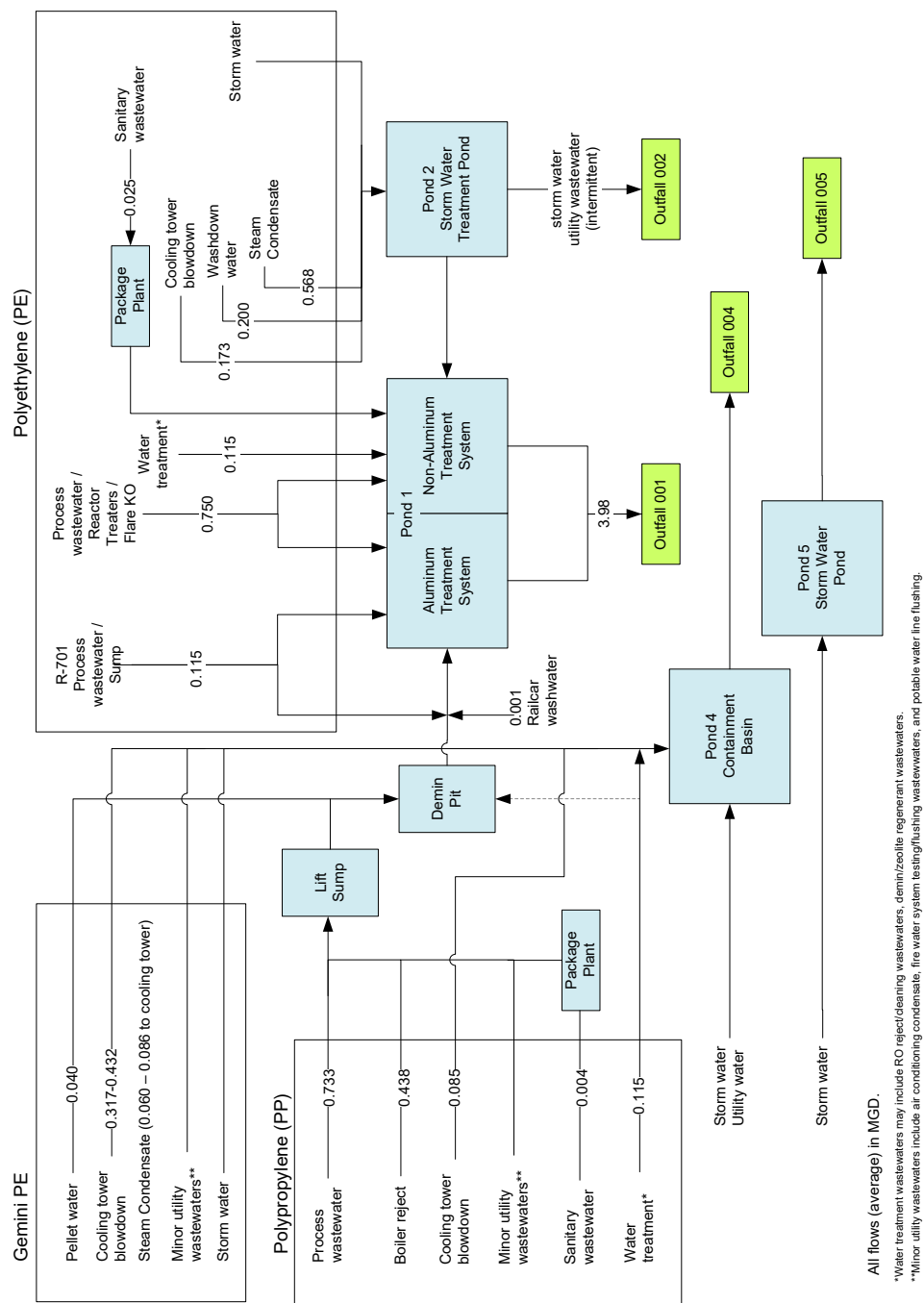


Figure 1 - Wastewater Flow Diagram INEOS La Porte Plant

4-23-25

INEOS USA LLC
INEOS Polyethylene North America La Porte Plant
TPDES WQ0000544000 Renewal 2025

Application Contents

Administrative Report 1.0
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
 Worksheet 7 - Stormwater Outfalls

Attachments

Cross-reference to
Application Item

SPIF-1	Supplemental Permit Information Form (SPIF)	
SPIF-2	USGS Map	SPIF-7
PLS-1	Plain Language Summary	AR1.0-9.f
A-1	USGS Map	AR1.0-11.b
T-1	Facility Description	TR-1.b, 2.a, 6
	Table 1. Wastewater Sources and Flows by Outfall	TR-4
	Figure 1. Wastewater Flow Diagram INEOS La Porte Plant	TR -2.b
T-2	Site Diagram	TR-1.d
T-3	Treatment Chemicals and SDSs	TR-5.b

Reference Key

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

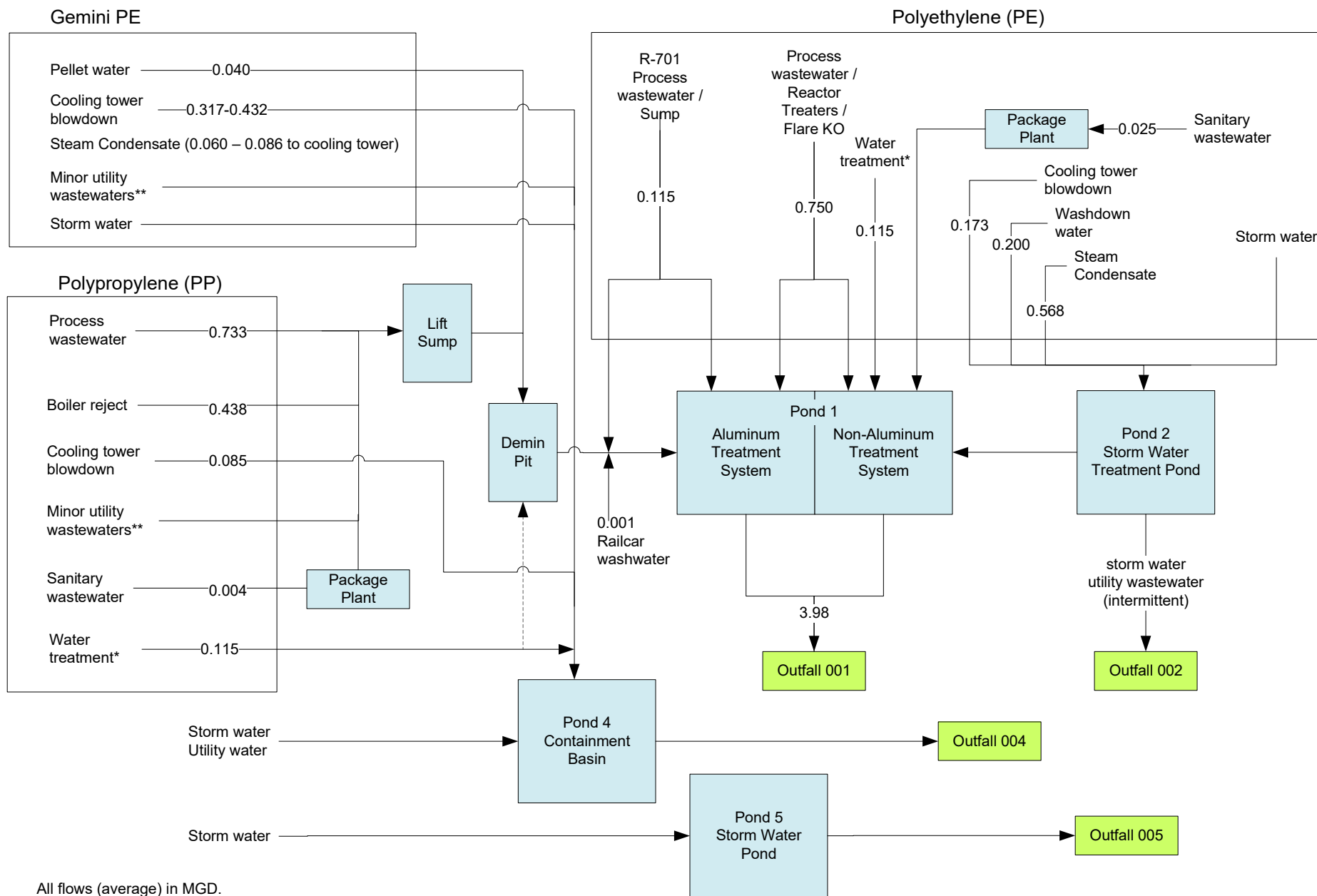
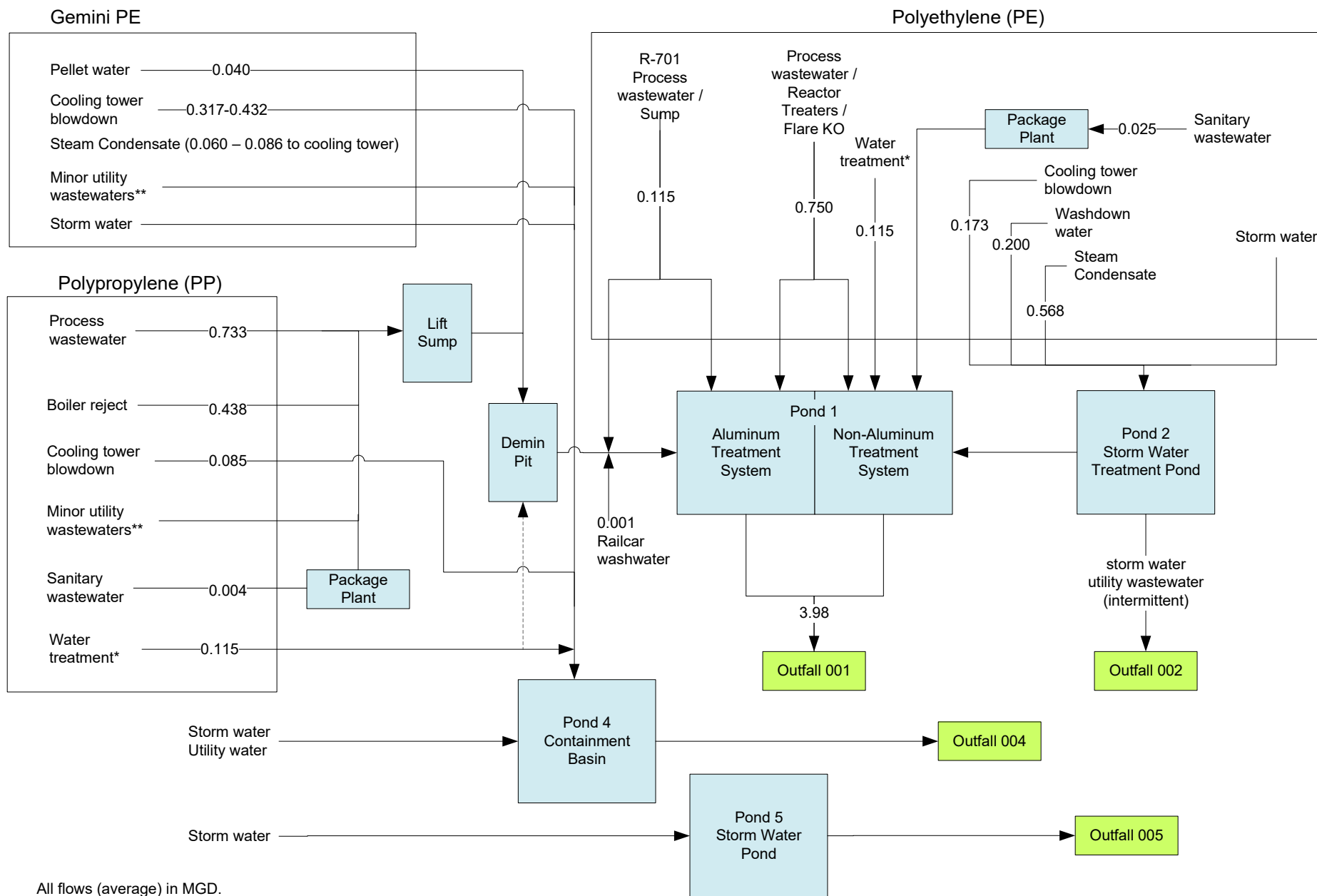


Figure 1 - Wastewater Flow Diagram INEOS La Porte Plant

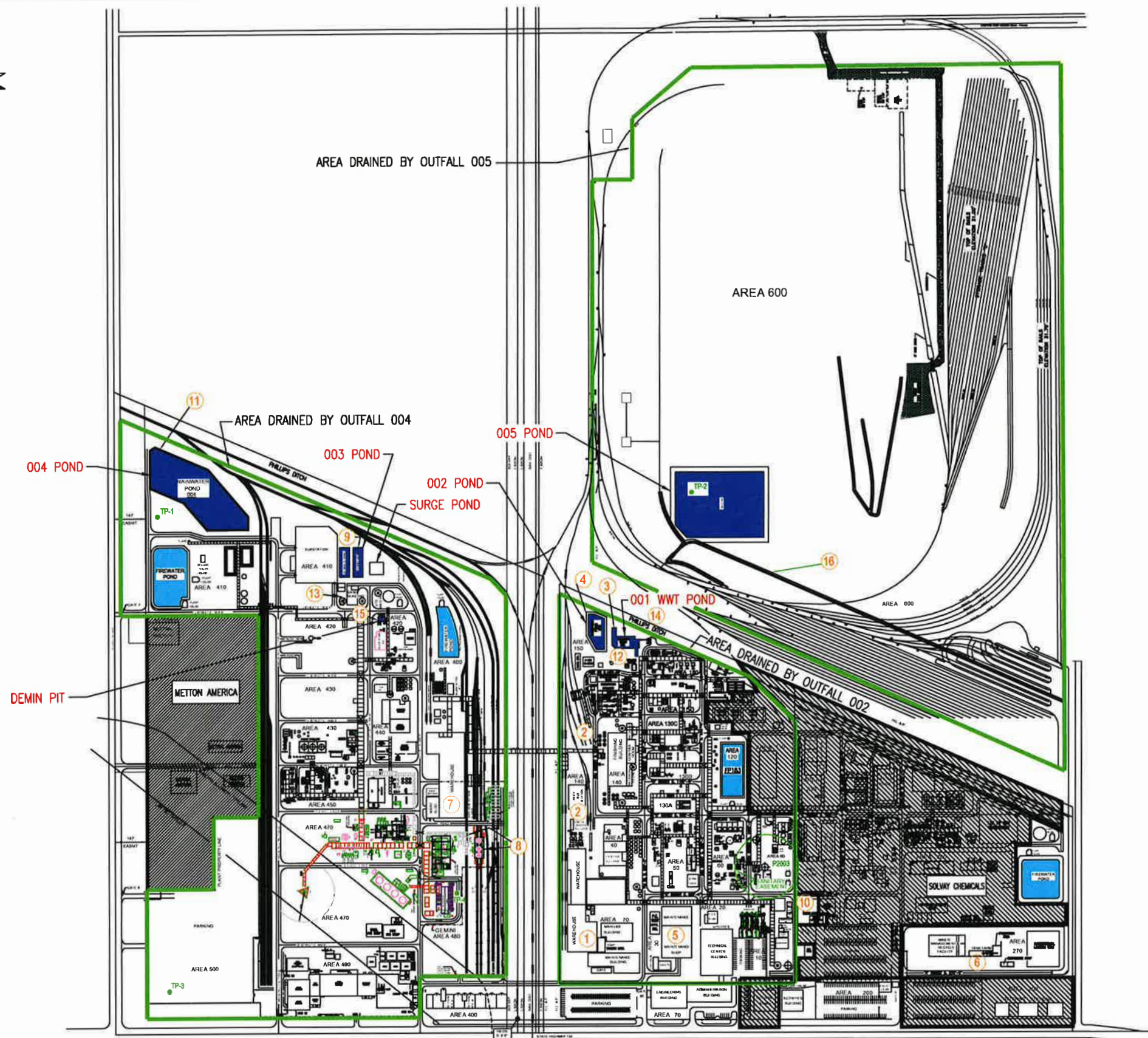
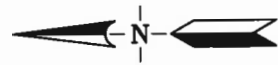


All flows (average) in MGD.

*Water treatment wastewaters may include RO reject/cleaning wastewaters, demin/zeolite regenerant wastewaters.

**Minor utility wastewaters include air conditioning condensate, fire water system testing/flushing wastewaters, and potable water line flushing.

Figure 1 - Wastewater Flow Diagram INEOS La Porte Plant



INEOS POLYETHYLENE NORTH AMERICA
ENVIRONMENTAL FACILITIES AND
STORMWATER DRAINAGE

ITEM# PLANT AREA & ITEM DESCRIPTION

POLYETHYLENE PLANT

- 1 P.E. PRODUCTION LOADING (TRUCK)
- 2 P.E. PRODUCTION LOADING (RAIL)
- 3 PROCESS OUTFALL 001/WASTEWATER TREATMENT PLANT
- 4 STORMWATER OUTFALL 002
- 6 WASTE WATER STORAGE VESSELS
- 12 DOMESTIC WWTU (SANITARY)

POLYPROPYLENE PLANT

- 7 P.P./ GEMINI PRODUCT LOADING (TRUCK)
- 8 P.P./ GEMINI PRODUCT LOADING (RAIL)
- 9 003 POND
- 11 STORMWATER OUTFALL 004
- 13 DOMESTIC WWTU (SANITARY)
- 15 DEMIN PIT TO OUTFALL 001

GENERAL PLANT FACILITIES

- 14 STORMWATER OUTFALL 005
- 16 STORMWATER COLLECTION DITCH
- 5 MAINTENANCE SHOP
- 10 VEHICLE SHOP

- ⊕ WATER WELLS
- ⊙ PROCESS AND SANITARY SEWER SUMPS
- FIREWATER PONDS

ATTACHMENT T-2

INEOS Olefins & Polymers USA BATTLEGROUND MANUFACTURING COMPLEX

LOCATIONS OF: OUTFALLS, DRAINAGE AREAS,
SOLID AND HAZARDOUS WASTE FACILITIES, WATER
WELLS, & PROCESS & SANITARY SEWER SUMPS

DATE	REV	7/31/02	SCALE	ADCT. NO.
CHG.			1"=200'	812000050
APPR.			DWG. NO.	
APPR.			L-990-82171-D	4

NO.	REVISION	BY	DATE	CHK'D	APR'D	DWG. NO.	REFERENCE DWG	SUBJECT
4	ADDED GEMINI & UPDATED FOR RECORD	M.R.R.	03/06/19		GA			
3	PER SAP# C-L03H9	SP	4/08					
2	REVISED ITEMS #3.9 & 14	JFS	3/08					
1	REVISED ITEM #9	JFS	12/07					
0	ORIGINAL ISSUE	RWV	7/31/01					