



# 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



## 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.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements. After filling in the information for your facility delete these instructions.

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.*

Exxonmobil Oil Corporation (CN600920748) operates the Beaumont Polyethylene Plant (RN102450756), a HDPE and LDPE pellets and resins manufacturing site. The facility is located at 11440 U.S. Highway 90, in Beaumont, Jefferson County, Texas 77713. ExxonMobil Oil Corporation is submitting an application for permit renewal without changes.

Discharges from the facility are expected to contain biological oxygen demand (5-day), total suspended solids, chemical oxygen demand, total organic carbon, oil and grease, sulfate, residual chlorine, and zinc. Process wastewater, sanitary sewage, process stormwater and certain utility wastewater is treated by neutralization, oil removal, equalization, activated sludge biodegradation (aeration), and sedimentation. Other wastewaters authorized for discharge including certain utility waters and certain stormwater do not receive treatment prior to discharge.

## 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.*

ExxonMobil Oil Corporation (CN600920748) opera la Planta de Polietileno de Beaumont (RN102450756), un sitio de fabricación de gránulos y resinas de HDPE y LDPE. La instalación está ubicada en 11440 U.S. Highway 90, en Beaumont, Condado de Jefferson, Texas 77713. ExxonMobil Oil Corporation está presentando una solicitud de renovación de permiso sin cambios.

Se espera que las descargas de la instalación contengan demanda biológica de oxígeno (5 días), sólidos suspendidos totales, demanda química de oxígeno, carbono orgánico total, aceites y grasas, sulfato, cloro residual y zinc. Las aguas residuales del proceso, aguas negras sanitarias, aguas pluviales del proceso y ciertas aguas residuales de servicios públicos se tratan mediante neutralización, eliminación de aceites, ecualización, biodegradación por lodos activados (aireación) y sedimentación. Otras aguas residuales autorizadas para descarga, incluidas ciertas aguas de servicios públicos y algunas aguas pluviales, no reciben tratamiento antes de su descarga.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0002029000

**APPLICATION.** ExxonMobil Oil Corporation, P.O. Box 2295, Beaumont, Texas 77704, which manufactures low density polyethylene pellets and resins, high density polyethylene pellets and resins, and catalyst, all shipped via railroad hopper cars, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002029000 (EPA I.D. No. TX0068934) to authorize the discharge of treated wastewater and stormwater at an intermittent flow-variable volume via Outfall 001 and the discharge of stormwater at an intermittent and flow-variable volume via Outfall 002. The facility is located at 11440 U.S. Highway 90, near the city of Beaumont, in Jefferson County, Texas 77713. The discharge route is from the plant site via Outfall 001 to an unnamed ditch; thence to a detention basin; thence to Willow Marsh Bayou; thence to Hillebrandt Bayou; and via Outfall 002 to Willow Marsh Bayou; thence to Hillebrandt Bayou. TCEQ received this application on August 4, 2025. The permit application will be available for viewing and copying at Beaumont Downtown Library, 801 Pearl Street, Beaumont, in Jefferson County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.229,30.06925&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](http://www.tceq.texas.gov/goto/cid). Search the database using the permit number for this application, which is provided at the top of this notice.

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

Further information may also be obtained from ExxonMobil Oil Corporation at the address stated above or by calling Mr. Taylor Clift, P.E., Environmental Advisor, at 409-269-9875.

Issuance Date: August 15, 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. WQ0002029000**

**SOLICITUD.** ExxonMobil Oil Corporation, P.O. Box 2295, Beaumont, Texas 77704, que fabrica gránulos y resinas de polietileno de baja densidad, gránulos y resinas de polietileno de alta densidad, y catalizadores, todos enviados por vagones tolva de ferrocarril, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) la renovación del Permiso No. WQ0002029000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (ID de la EPA No. TX0068934) para autorizar la descarga de aguas residuales tratadas y aguas pluviales con un caudal variable e intermitente a través del desagüe 001 y la descarga de aguas pluviales a un volumen intermitente y de flujo variable a través del emisario 002. La instalación está ubicada en 11440 U.S. Highway 90, cerca de la ciudad de Beaumont, en el Condado de Jefferson, Texas 77713. La ruta de descarga es desde el sitio de la planta a través del Emisario 001 hacia una zanja sin nombre; luego hacia una cuenca de retención; luego hacia Willow Marsh Bayou; luego hacia Hillebrandt Bayou; y a través del Emisario 002 hacia Willow Marsh Bayou; luego hacia Hillebrandt Bayou. TCEQ recibió esta solicitud el 4 de agosto de 2025. La solicitud del permiso estará disponible para su consulta y copia en la Biblioteca del Centro de Beaumont, 801 Pearl Street, Beaumont, en el Condado de Jefferson, Texas, antes de la fecha en que se publique este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles 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=-94.229,30.06925&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](http://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 Exxonmobil Oil Corporation a la dirección indicada arriba o llamando a Sr. Taylor Clift, P.E. al 409-269-9875.

Fecha de emisión: 15 de agosto de 2025



**TPDES Permit Renewal Application  
Permit WQ0002029000  
For**

**ExxonMobil Oil Corporation  
Beaumont Polyethylene Plant (BPEP)  
Beaumont, Texas**

**TCEQ RN – 100211903  
TCEQ CN – 600920748**

**August 2025**

ExxonMobil Product Solutions  
P.O. Box 2295  
Beaumont, Texas 77704-2295



August 4, 2025

Texas Commission on Environmental Quality  
Water Quality Division  
Applications Review and Processing Team, MC-148  
P.O. Box 13087  
Austin, Texas 78711-3087  
CERTIFIED MAIL NO. 7022 0410 0002 8654 7309  
RETURN RECEIPT REQUESTED

**RE: Submittal of TPDES Permit Renewal Application  
ExxonMobil Beaumont Polyethylene Plant  
TPDES Permit No. WQ0002029000  
EPA I.D. No. TX0068934**

On behalf of ExxonMobil Oil Corporation's Beaumont Polyethylene Plant, enclosed is the renewal application of TPDES permit number WQ0002029000 for the Beaumont Polyethylene Plant. This application is a renewal without changes.

If you have any questions about this submission or request additional information, please contact Taylor Clift at (409) 269-9875 or [beaumont.env.admin@exxonmobil.com](mailto:beaumont.env.admin@exxonmobil.com).

Sincerely,

A handwritten signature in blue ink that reads "Samantha Roberts".

Samantha Roberts  
Plant Manager  
ExxonMobil Beaumont Polyethylene Plant

Attachments (1)



# ConMobil Oil Corporation Beaumont Polyethylene Plant TDS Worksheet Application 2020

## Application Contents

1.0 Introduction Requirements

2.0 General Requirements

3.0 Environmental Protection Requirements and Standards

4.0 Environmental Protection - Pollution Prevention

5.0 Environmental Protection - Resource Conservation

6.0 Environmental Protection - Occupational Safety and Health Standards

7.0 Environmental Protection - Air Quality Standards and Control Measures

## Attachments

8.0 PIF - Process Information Form

9.0 PIR - Process Information Report

10.0 MIP - Material Information Form

11.0 DIF - Data Information Form

12.0 PIR - Process Information Report

13.0 PIR - Process Information Report

14.0 PIR - Process Information Report

15.0 PIR - Process Information Report

16.0 PIR - Process Information Report

17.0 PIR - Process Information Report

18.0 PIR - Process Information Report

19.0 PIR - Process Information Report



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

**Complete and submit this checklist with the industrial wastewater permit application.**

APPLICANT NAME: ExxonMobil Oil Corporation

PERMIT NUMBER (If new, leave blank): WQ00 02029000

**Indicate if each of the following items is included in your application.**

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Administrative Report 1.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Worksheet 9.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 10.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Summary of Application (PLS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Involvement Plan Form	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Worksheet 11.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Affected Landowners Map	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Landowner Disk or Labels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original Photographs	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 4.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water Balance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 6.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 7.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			



For TCEQ Use Only

Segment Number \_\_\_\_\_ County \_\_\_\_\_  
Expiration Date \_\_\_\_\_ Region \_\_\_\_\_  
Permit Number \_\_\_\_\_

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### INDUSTRIAL WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst<sup>1</sup>](#)).

#### Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.

Applicant Name: ExxonMobil Oil Corporation

Permit No.: W00002029000

EPA ID No.: TX00068934

Expiration Date: February 5, 2026

- b. Check the box next to the appropriate authorization type.

- ☒ Industrial Wastewater (wastewater and stormwater)  
☐ Industrial Stormwater (stormwater only)  
☐ Reverse Osmosis Water Treatment (reverse osmosis water treatment wastewaters only)

- c. Check the box next to the appropriate facility status.

- ☒ Active ☐ Inactive

- d. Check the box next to the appropriate permit type.

- ☒ TPDES Permit ☐ TLAP ☐ TPDES with TLAP component

- e. Check the box next to the appropriate application type.

- ☐ New  
☐ Renewal with changes ☒ Renewal without changes  
☐ Major amendment with renewal ☐ Major amendment without renewal  
☐ Minor amendment without renewal

<sup>1</sup> [https://www.tceq.texas.gov/publications/search\\_forms.html](https://www.tceq.texas.gov/publications/search_forms.html)

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: See Item 13 in Technical Report 1.0

For TCEQ Use Only

Segment Number \_\_\_\_\_ County \_\_\_\_\_  
Expiration Date \_\_\_\_\_ Region \_\_\_\_\_  
Permit Number \_\_\_\_\_

- g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A <sup>2</sup>	<input type="checkbox"/> \$2,050	<input checked="" type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

- h. Payment Information

***Mailed***

Check or money order No.: [Click to enter text.](#)

Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

***Epay***

Voucher number: 774853, 774854

Copy of voucher attachment: Attachment 1 - ePay Vouchers

## Item 2. Applicant Information (Instructions, Pages 26)

- a. Customer Number, if applicant is an existing customer: CN600920748

**Note:** Locate the customer number using the [TCEQ's Central Registry Customer Search](#)<sup>3</sup>.

- b. Legal name of the entity (applicant) applying for this permit: ExxonMobil Oil Corporation

**Note:** The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

<sup>2</sup> All facilities are designated as minors until formally classified as a major by EPA.

<sup>3</sup> <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: Ms. Full Name (Last/First Name): Samantha Roberts

Title: Plant Manager

Credential: Click to enter text.

- d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

**Note:** The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

### Item 3. Co-applicant Information (Instructions, Page 27)

- ☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

- a. Legal name of the entity (co-applicant) applying for this permit: Click to enter text.

**Note:** The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- b. Customer Number (if applicant is an existing customer): CNClick to enter text.

**Note:** Locate the customer number using the TCEQ's Central Registry Customer Search.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: Click to enter text.

Full Name (Last/First Name): Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

- d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

**Note:** The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

### Item 4. Core Data Form (Instructions, Pages 27)

- a. Complete and attach one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)). If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: CDF

### Item 5. Application Contact Information (Instructions, Page 27)

Provide names of two individuals who can be contacted about this application. Indicate if the individual can be contacted about administrative or technical information, or both.

- a. ☐ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Clift, Taylor

Title: Environmental Advisor Credential: P.E.

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295

City/State/Zip: Beaumont, TX 77704

Phone No: (409) 269-9875

Email: taylor.m.clift@exxonmobil.com

- b. ☒ Administrative Contact      ☐ Technical Contact

Prefix: Ms.      Full Name (Last/First Name): Bolton, Heather

Title: Multimedia SLS      Credential: N/A

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 3311      City/State/Zip: Beaumont, TX 77662

Phone No: (409) 269-0054      Email: heather.l.bolton@exxonmobil.com

Attachment: N/A

## Item 6. Permit Contact Information (Instructions, Page 28)

Provide two names of individuals that can be contacted throughout the permit term.

- a. Prefix: Mr.      Full Name (Last/First Name): Clift, Taylor

Title: Environmental Advisor      Credential: P.E.

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295      City/State/Zip: Beaumont, TX 77704

Phone No: (409) 269-9875      Email: taylor.m.clift@exxonmobil.com

- b. Prefix: Ms.      Full Name (Last/First Name): Bolton, Heather

Title: Multimedia SLS      Credential: N/A

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 3311      City/State/Zip: Beaumont, TX 77662

Phone No: (409) 269-0054      Email: heather.l.bolton@exxonmobil.com

Attachment: N/A

## Item 7. Billing Contact Information (Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for permits **in effect on September 1 of each year**. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

Prefix: Mr.      Full Name (Last/First Name): Clift, Taylor

Title: Environmental Advisor      Credential: P.E.

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295      City/State/Zip: Beaumont, TX 77704

Phone No: (409) 269-9875      Email: taylor.m.clift@exxonmobil.com

## Item 8. DMR/MER Contact Information (Instructions, Page 28)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

Prefix: Ms. Full Name (Last/First Name): Bolton, Heather

Title: Multimedia SLS Credential: N/A

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 3311

City/State/Zip: Beaumont, TX 77662

Phone No: (409) 269-0054

Email: heather.l.bolton@exxonmobil.com

## **Item 9. Notice Information (Instructions, Pages 28)**

### **a. Individual Publishing the Notices**

Prefix: Mr. Full Name (Last/First Name): Clift, Taylor

Title: Environmental Advisor Credential: P.E.

Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295

City/State/Zip: Beaumont, TX 77704

Phone No: (409) 269-9875

Email: taylor.m.clift@exxonmobil.com

### **b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)**

☒ E-mail: taylor.m.clift@exxonmobil.com

☐ Fax: Click to enter text.

☐ Regular Mail (USPS)

Mailing Address: Click to enter text.

City/State/Zip Code: Click to enter text.

### **c. Contact in the Notice**

Prefix: Mr. Full Name (Last/First Name): Clift, Taylor

Title: Environmental Advisor Credential: P.E.

Organization Name: ExxonMobil Oil Corporation

Phone No: (409) 269-9875

Email: taylor.m.clift@exxonmobil.com

### **d. Public Viewing Location Information**

**Note:** If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: Main Downtown Library  
enter text.

Location within the building: Click to

Physical Address of Building: 801 Pearl Street

City: Beaumont County: Jefferson

### **e. Bilingual Notice Requirements**

This information is required for new, major amendment, minor amendment or minor modification, and renewal applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.



Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is required.

1. 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 ☐ No

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

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

☒ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

☒ Yes ☐ No

4. 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)?

☐ Yes ☒ No ☐ N/A

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

- f. Summary of Application in Plain Language Template - Complete and attach the Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS. Attachment: PLS

- g. Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment. Attachment: Click to enter text.

## Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

- a. TCEQ issued Regulated Entity Number (RN), if available: RN100211903

**Note:** If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

- b. Name of project or site (name known by the community where located): Beaumont Polyethylene Plant

- c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

**Note:** If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

- d. Owner of treatment facility:

Prefix: Click to enter text.

Full Name (Last/First Name): Click to enter text.

or Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295

City/State/Zip: Beaumont, TX 77704

Phone No: (832) 625-4133

Email: samantha.l.roberts@exxonmobil.com

e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

f. Owner of land where treatment facility is or will be: Click to enter text.

Prefix: Click to enter text.

Full Name (Last/First Name): Click to enter text.

or Organization Name: ExxonMobil Oil Corporation

Mailing Address: P.O. Box 2295

City/State/Zip: Beaumont, TX 77704

Phone No: (832) 625-4133

Email: samantha.l.roberts@exxonmobil.com

**Note:** If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: N/A

g. Owner of effluent TLAP disposal site (if applicable): N/A

Prefix: Click to enter text.

Full Name (Last/First Name): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City/State/Zip: Click to enter text.

Phone No: Click to enter text.

Email: Click to enter text.

**Note:** If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

h. Owner of sewage sludge disposal site (if applicable):

Prefix: N/A

Full Name (Last/First Name): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City/State/Zip: Click to enter text.

Phone No: Click to enter text.

Email: Click to enter text.

**Note:** If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

## Item 11. TD PES Discharge/TLAP Disposal Information (Instructions, Page 31)

a. Is the facility located on or does the treated effluent cross Native American Land?

☐ Yes ☒ No

b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.

☒ One-mile radius

☒ Three-miles downstream information

☒ Applicant's property boundaries

☒ Treatment facility boundaries

☒ Labeled point(s) of discharge

☒ Highlighted discharge route(s)

☐ Effluent disposal site boundaries

☒ All wastewater ponds

☐ Sewage sludge disposal site

☐ New and future construction

Attachment: Attachment 2 - USGS Map

c. Is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

e. Are the discharge route(s) in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: Click to enter text.

f. City nearest the outfall(s): Beaumont

g. County in which the outfalls(s) is/are located: Jefferson

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

☐ Yes ☒ No

If yes, indicate by a check mark if: ☐ Authorization granted ☐ Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: Click to enter text.

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: Click to enter text.

i. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☐ Yes No or New Permit ☒ Click to enter text.

If no, or a new application, provide an accurate location description: Click to enter text.

j. City nearest the disposal site: N/A

k. County in which the disposal site is located: N/A

l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: N/A

m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

## Item 12. Miscellaneous Information (Instructions, Page 33)

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

☐ Yes ☒ No

If yes, list each person: [Click to enter text.](#)

- b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: [Click to enter text.](#)

Total amount due: [Click to enter text.](#)

- c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: [Click to enter text.](#)

Amount due: [Click to enter text.](#)

**Item 13. Signature Page (Instructions, Page 33)**

Permit No: WQ0002029000

Applicant Name: ExxonMobil Oil Corporation

Certification: I, Samantha Roberts, 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.

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

Signatory name (typed or printed): Samantha Roberts

Signatory title: Plant Manager

Signature: *Samantha Roberts*

(Use blue ink)

Date: 8-4-2025

Subscribed and Sworn to before me by the said *JM*

on this Aug 4, 2025

day of Aug, 20 25.

My commission expires on the 23<sup>rd</sup>

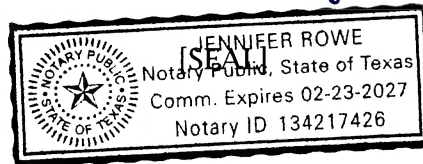
day of February, 20 28.

*Jennifer Rowe*

Notary Public

*Jefferson*

County, Texas



**Note:** *If co-applicants are necessary, each entity must submit an original, separate signature page.*

# **INDUSTRIAL WASTEWATER PERMIT APPLICATION**

## **SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)**

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

**Attachment:** SPIF

# INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of industrial wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305 by checking the box next to the item. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until all items below are addressed.

- ☒ Core Data Form (TCEQ Form No. 10400)  
*(Required for all applications types. Must be completed in its entirety and signed.  
Note: Form may be signed by applicant representative.)*
- ☒ Correct and Current Industrial Wastewater Permit Application Forms  
*(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)*
- ☒ Water Quality Permit Payment Submittal Form (Page 14)  
*(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)*
- ☒ 7.5 Minute USGS Quadrangle Topographic Map Attached  
*(Full-size map if seeking "New" permit.  
8 ½ x 11 acceptable for Renewals and Amendments.)*
- ☒ N/A ☐ Current/Non-Expired, Executed Lease Agreement or Easement Attached
- ☒ N/A ☐ Landowners Map  
*(See instructions for landowner requirements.)*

## Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

- ☒ N/A ☐ Landowners Labels and Cross Reference List  
*(See instructions for landowner requirements.)*
- ☒ Electronic Application Submittal  
*(See application submittal requirements on page 23 of the instructions.)*
- ☒ Original signature per 30 TAC § 305.44 – Blue Ink Preferred  
*(If signature page is not signed by an elected official or principle executive officer,  
a copy of signature authority/delegation letter must be attached.)*
- ☒ Summary of Application (in Plain Language)





# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

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

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

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

The Beaumont Polyethylene Plant produces low density and high density polyethylene (LDPE and HDPE) pellets and resins. Three high-pressure and four low-pressure lines are used to polymerize ethylene gas into a solid polyethylene product. The major raw material for the process is ethylene gas, which is supplied by underground pipeline. Other materials are supplied by rail and truck. Co-monomers used in the process include isopentane, butene, and hexane. A proprietary silica-based catalyst is used in the low-pressure system. This catalyst is manufactured and used onsite and is also exported (SIC 2819). The polyethylene product is shipped via railroad hopper cars. SIC Codes are 2821 and 2819.

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

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<sup>1</sup>

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

Wastewater generated at the facility consists of process wastewaters, sanitary sewage, cooling tower blowdown, boiler blowdown, demineralizer and water softening wastewaters, condensates, storm water, and hydrostatic test waters. The treatment system consists of neutralization, oil removal, equalization, activated sludge biodegradation (aeration), and sedimentation. Outfall 101 is the effluent from the effluent holding basin in the biological treatment system. Outfall 201 is the effluent from the Storm Water Pond which receives process wastewater, stormwater, cooling tower blowdown, boiler blowdown from the facilities on the eastern portion of the site. Effluent from Outfalls 101 and 201 combine into virtual Outfall 301. The Outfall 001 discharge consists of the Outfall 101 and 201 discharges and any storm water collected downstream of the Outfall 101 and 201 discharges. There are very small amounts of steam condensate and air conditioning condensate that can enter the storm water system and that do not go through wastewater treatment. The volume of these streams is less than one percent of the total Outfall 001 discharge.

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

#### Materials List

Raw Materials	Intermediate Products	Final Products
□□□□□□□□	N/A	Polyethylene Resins
□□PR□P□□□□		Catalyst
□□□ □□□ □□ID□		
□M D□□□M□R P□□□M□R PR□□□□□□□□ □DDI□□□ F□ □□□□		
□□□ □□P□RF□□□□ M□		
□□□□ □□□□ M□□□□R□□□□□		
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□□□I□□□□D □□□MI□□ □□ □□□□ □□□□		
□□□ □P□□I□□ □□□□□□R □□□		
□□P□□ □□□FI□ □□		
□□P□□P□□□□ □□□□□□□□ □□□□□□□□		
□MM□□I□M □IF□□□RID□		
□MM□□I□M □□DR□□□□ F□□□RID□		
□□□□R□□I□□ FI□□□R M□DI□ □ □□□□R□□I□□ □□□□		
□RMID □		



Raw Materials	Intermediate Products	Final Products
DI 00 00000000		
D 000RP 0000 0IP 0R 0 0R		
D 00P 00000		
D 0R 000P 000000 00		
D 000M 0R 00M 0P 000M 0R PR 000000I 00 0DDI 000 F 0 000000		
00D 0R 00000 000M 00 0I 00		
0R 000MID 0		
00000000000 0000000000000 000000PD 000000 00000000I 0 0M 0RP 00000 0I 000		
000000000 000		
000000000 0 00000 0		
000 0000R 0F 0D 000R 0000		
F 0000P 0 0 00		
F 00 0000		
F 000R 00000000		
FR 000P 00 0000I 00 0000 P 0000R 0000000 F 00M		
0 00I 0 00F		
0P 00M 000 00DR 0P 0R 00ID 0		
0 0000		
0000000		
00DR 00RI 00 00P 0 0I 00 MI 00R 00 0I 0		
00DR 00000RI 00ID 00000I 00 00 0000		
I 00P 00 000000		
I 0D 000RI 00 000D		
IR 00F 00 000		
IR 00F 00 000FF		
IR 00F 00 0 0M 0		
IR 00000 0000M 000		
IR 00000 0000 0I 00		
IR 00000 00000 0I 00 0		
IR 000000 0000 FD		

Raw Materials	Intermediate Products	Final Products
I		
I P		
I P P		
R P D		
I M R R		
RD		
RD R R		
RD R R		
M I M R I D I M R I D D		
M R		
M P I		
M		
M I		
R I I		
M R P		
M I D R		
M I D R D		
M I D R P		
M R M P D		
D I M I		
R D D R		
D P P F I		
D I F		
R M P		
R D		
P		
FR D		
D D I R D D R P P R P I		
D R M I R P I R		

Raw Materials	Intermediate Products	Final Products
<p>□P□□□□□ □□P□□□□□ □□</p> <p>□P□□□□□ □□</p>		
P□R□□□□RM □F		
P□□□□□□□□ □□□ □F		
P□RM□□R□□□ P□□□□□□		
P□□RI□□ □ □□□□ □F PRI□□		
P□□□M□□ □□□ □□□ □□□		
<p>P□□□□□□□M □□□□RID□□□M□</p> <p>□□□□R□□□D □□□ □□□□R</p> <p>□□□□RID□</p>		
P□□□□□□□M □□DID□		
<p>PR□□□□□□□ □□□ F□</p> <p>F□□□□□□□□□</p>		
<p>PR□M□R □□□□□□RI□R □□□□□</p> <p>□□□□□ □□□M□□ □□□R□ □□□□</p>		
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Raw Materials	Intermediate Products	Final Products
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## 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.

Process Oil/Water Separator - Oil/water separation for process wastewater; 200 sq. ft, 5 ft depth. Wastewater Surge Basin - Storm water surge volume and oil/water separation of combined process wastewaters; 120,000 ft<sup>3</sup>, 5 ft depth. Neutralization sump - Neutralization for demineralization regeneration streams prior to biological treatment; 400 sq. ft, 15 ft depth. Sewage Treatment - Biological treatment of sanitary wastewater, disinfection with calcium hypochlorite (HTH) tablets. Aeration Basin - Biological treatment; 120,000 ft<sup>3</sup>, 5 ft depth. Effluent Holding Basin - Settling of aeration basin solids, pH adjustment as required; 50,000 ft<sup>3</sup>, 4 ft depth.

- 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:** Attachment 3 – Flow Diagram, Attachment 5 – Water Balance

## 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	Pond # 2	Pond # 3	Pond # 4
Use Designation: (T) (D) (C) or (E)	T	T	T	T, C
Associated Outfall Number	101	101	101	201
Liner Type (C) (I) (S) or (A)	I	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Unknown	Unknown	Unknown	Unknown
Length (ft)	163*	229*	163*	650*
Width (ft)	137*	110*	74*	180*
Max Depth From Water Surface (ft), Not Including Freeboard	5*	5*	4.75*	18*
Freeboard (ft)	2*	2*	2*	10*
Surface Area (acres)	0.51*	0.58*	0.28*	2.7*
Storage Capacity (gallons)	900,000*	900,000*	380,000*	5,900,000*
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1977	1977	1977	2018

#### Impoundment Information

Parameter	Pond # 5	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	C, E			
Associated Outfall Number	N/A			
Liner Type (C) (I) (S) or (A)	I			
Alt. Liner Attachment Reference	N/A			
Leak Detection System, Y/N	N			

Groundwater Monitoring Wells, Y/N	N			
Groundwater Monitoring Data Attachment	N/A			
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Unknown			
Length (ft)	210*			
Width (ft)	145*			
Max Depth From Water Surface (ft), Not Including Freeboard	5*			
Freeboard (ft)	1*			
Surface Area (acres)	0.72*			
Storage Capacity (gallons)	1,140,000*			
40 CFR Part 257, Subpart D, Y/N	N			
Date of Construction	2018			

\*Dimensions and Storage Capacities are estimated values

**Attachment:** N/A

The following information (**Items 3.b – 3.e**) is required only for **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:** [Click to enter text.](#)

**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:** [Click to enter text.](#)

- 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:** [Click to enter text.](#)

- 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:** [Click to enter text.](#)

## 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	30.070193	-94.225150
002	30.071093	-94.220956
101	30.068565	-94.231147
201	30.068174	-94.225527

### Outfall Location Description

Outfall No.	Location Description
001	On the eastern side of the property as the water conveyance exits the fence line.
002	On the eastern side of the property about 500 feet from the northeast corner of the property.
101	At the effluent measuring and sampling station at the exit from the Stormwater Pond and prior to commingling with other wastewaters.
201	At the effluent measuring and sampling station at the exit from the Stormwater Pond and prior to commingling with other wastewaters.

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

Outfall No.	Description of sampling point
N/A	For all outfalls, same as outfall location.

Outfall No.	Description of sampling point

#### 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	Flow Variable (Report)	Flow Variable (Report)	No Change	No Change	Currently Discharging
002	Intermittent and Flow Variable (Report)	Intermittent and Flow Variable (Report)	No Change	No Change	Currently Discharging
101	1.0	1.5	No Change	No Change	Currently Discharging
201	0.9	1.6	No Change	No Change	Currently Discharging
301	Reporting outfall for combined BOD <sub>5</sub> from Outfalls 101 and 201.				

#### Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N	Y	Flow meter
002	N	Y	Estimated
101	N	Y	Flow meter
201	N	Y	Flow meter
301	N/A	N/A	N/A

#### 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	N/A	N/A	N/A
101	N	Y	N	24	31	12
201	N	Y	N	24	31	12

## Outfall Wastestream Contributions

### Outfall No. **001**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Storm water	Intermittent and Variable	Variable
Previously monitored effluent (Outfall 101)	See Outfall 101 flows below	See Outfall 101 below
Steam and air conditioner condensates	Incidental	Negligible
Hydrostatic test water	Intermittent and Variable	Variable

### Outfall No. **002**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Intermittent and Variable	100%

### Outfall No. **101**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Treated Process Wastewater	0.475	47%
Treated Utility Wastewater	0.508	51%
Treated Domestic Wastewater	0.017	2%
Stormwater	Included with process wastewater	

### Outfall No. **201**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Treated Process Wastewater (pellet water)	0.072	8 %
Process Wastewater (hopper car wash)	0.130	14 %
Storm water	0.134	15 %
Cooling tower blowdown	0.562	62 %
Boiler blowdown	0.001	<1%
Water treatment wastewaters (intermittent)	0.001	<1%

**Attachment:** Attachment 5 – Water Balance

## 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:** [Click to enter text.](#)

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	3	856,000	1,318,000
Boilers	12	28,000	54,000

## 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: Stormwater from production and process areas is collected in the process sewer and transferred to the wastewater treatment system and discharged through Outfalls 101 and 201. Other stormwater may commingle with Outfall 101 and be discharged through Outfall 001.



## 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: Domestic wastewater is treated biologically in a package plant and disinfected prior to transfer to the aeration basin where it commingles with process wastewater and receives additional biological treatment. See worksheet 5.0 for info on domestic sludge management.
- 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: [Click to enter text.](#)

## 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: Routine biomonitoring of the Outfall 001 discharge is required in the current TPDES permit. Test results have been reported 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:** Routine biomonitoring of the Outfall 001 discharge is required in the current TPDES permit. Test results have been reported to the TCEQ as required by the permit.

## 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:** [Click to enter text.](#)

- 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:** [Click to enter text.](#)

- 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)
There are sealed sources of radioactive materials in instrumentation that have no contact with wastewater.	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)

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

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

☒ Yes

☐ No

☐ Decommissioned: [Click to enter text.](#)

☐ To Be Decommissioned: [Click to enter text.](#)

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

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

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

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

☐ Yes ☒ No

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

c. Cooling Water Supplier

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

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

<b>CWIS ID</b>	S0360112A (Neches River)			
<b>Owner</b>				
<b>Operator</b>	Lower Neches Valley Authority			

Information for LNVA was obtained from TCEQ's Public Water Supply (PWS) database. LNVA delivers untreated raw river/canal water from the Neches River to BPEP's water treatment and distribution system. Pipelines are used to direct the water to individual cooling towers, power plant, water treatment plants, and the firewater system. With respect to regulations for cooling water intake structures (CWIS), because the LNVA is also a Public Water System (PWS TX0360112), BPEP is not subject to the CWIS requirements (40CFR125.81(b)).

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

☐ No ☒ Yes; PWS No.: TX0360112

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.: Click to enter text.

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: Click to enter text.

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: Click to enter text.

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:** [Click to enter text.](#)

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: [Click to enter text.](#)

## 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.

Click to enter text.

## 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: Samantha Roberts

Title: Plant Manager

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Samantha Roberts*  
8-4-2025

# 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
Note: The catalyst production with SIC 2819 is not covered by any effluent guideline.	

### 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			



Subcategory	Actual Quantity/Day	Design Quantity/Day	Units

**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

**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 5 – Water Balance

#### 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	1978/2018

# 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)

- 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): 04/15/2025-05-/06/2025
- ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- 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:** Attachment 7 – Contract Analytical Labs

### 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)
BOD (5-day)	2.2	2.4	3.6	2.3
CBOD (5-day)	2.2	1.8	1.3	3.2
Chemical oxygen demand	269	53	50	42
Total organic carbon	21.6	19.5	16.5	13.2
Dissolved oxygen	6.6	4.4	5.0	3.4
Ammonia nitrogen	.26	.26	<.20	<.20
Total suspended solids	24	30	21	20
Nitrate nitrogen	.29	.31	.22	<.20
Total organic nitrogen	<1.0	1.12	2.12	1.47
Total phosphorus	1.64	1.58	1.52	1.08
Oil and grease	10.5	<2.3	<2.2	<2.2
Total residual chlorine	<.02	.05	.03	.02

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total dissolved solids	400	396	412	200
Sulfate	52	49	52	30.3
Chloride	116	178	107	66
Fluoride	.17	.16	.18	.18
Total alkalinity (mg/L as CaCO3)	45	48	50	52
Temperature (°F)	77.2	82.2	80.4	79.0
pH (standard units)	7.1	6.9	7.3	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)
Aluminum, total	245	280	355	279	2.5
Antimony, total	<5.0	<5.0	<5.0	<5.0	5
Arsenic, total	2.27	2.21	2.52	1.85	0.5
Barium, total	85.6	91.7	102	67	3
Beryllium, total	<.5	<.5	<.5	<.5	0.5
Cadmium, total	<1.0	<1.0	<1.0	<1.0	1
Chromium, total	<3.0	<3.0	<3.0	<3.0	3
Chromium, hexavalent	<3.0	<3.0	<3.0	<3.0	3
Chromium, trivalent	<3.0	<3.0	<3.0	<3.0	N/A
Copper, total	6.61	5.11	4.48	<3.0	2
Cyanide, available	3.6	3.4	1.8	2.8	2/10
Lead, total	.56	.60	.56	<.5	0.5
Mercury, total	.00457	.00669	.00434	.00401	0.005/0.0005
Nickel, total	3.87	3.45	3.09	2.49	2
Selenium, total	<5.0	<5.0	<5.0	<5.0	5
Silver, total	<.5	<.5	<.5	<.5	0.5
Thallium, total	<.5	<.5	<.5	<.5	0.5
Zinc, total	41.9	44.4	38.4	36.2	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)*
Acrylonitrile	<20	<20	<20	<20	50
Anthracene	<5	<5	<5	<5	10
Benzene	<5	<5	<5	<5	10
Benidine	<5	<5	<5	<5	50
Benzo(a)anthracene	<5	<5	<5	<5	5
Benzo(a)pyrene	<5	<5	<5	<5	5
Bis(2-chloroethyl)ether	<5	<5	<5	<5	10
Bis(2-ethylhexyl)phthalate	<5	<5	<5	<5	10
Bromodichloromethane [Dichlorobromomethane]	<5	<5	<5	<5	10
Bromoform	<5	<5	<5	<5	10
Carbon tetrachloride	<2	<2	<2	<2	2
Chlorobenzene	<5	<5	<5	<5	10
Chlorodibromomethane [Dibromochloromethane]	<5	<5	<5	<5	10
Chloroform	29	47	<10	33	10
Chrysene	<5	<5	<5	<5	5
m-Cresol [3-Methylphenol]	<5	<5	<5	<5	10
o-Cresol [2-Methylphenol]	<5	<5	<5	<5	10
p-Cresol [4-Methylphenol]	<5	<5	<5	<5	10
1,2-Dibromoethane	<5	<5	<5	<5	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<5	<5	<5	<5	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<5	<5	<5	<5	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<5	<5	<5	<5	10
3,3'-Dichlorobenzidine	<5	<5	<5	<5	5
1,2-Dichloroethane	<5	<5	<5	<5	10

<b>Pollutant</b>	<b>Sample 1 (µg/L)*</b>	<b>Sample 2 (µg/L)*</b>	<b>Sample 3 (µg/L)*</b>	<b>Sample 4 (µg/L)*</b>	<b>MAL (µg/L)*</b>
1,1-Dichloroethene [1,1-Dichloroethylene]	<5	<5	<5	<5	10
Dichloromethane [Methylene chloride]	<5	<5	<5	<5	20
1,2-Dichloropropane	<5	<5	<5	<5	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<5	<5	<5	<5	10
2,4-Dimethylphenol	<5	<5	<5	<5	10
Di-n-Butyl phthalate	<5	<5	<5	<5	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	<100	<100	<100	<100	---
Ethylbenzene	<5	<5	<5	<5	10
Ethylene Glycol	<2000	<2000	<2000	<2000	---
Fluoride	<500	<500	<500	<500	500
Hexachlorobenzene	<5	<5	<5	<5	5
Hexachlorobutadiene	<2	<2	<2	<2	10
Hexachlorocyclopentadiene	<5	<5	<5	<5	10
Hexachloroethane	<2	<2	<2	<2	20
4,4'-Isopropylidenediphenol (bisphenol A)	<5	<5	<5	<5	1
Methyl ethyl ketone	<5	<5	<5	<5	50
Methyl tert-butyl ether (MTBE)	<5	<5	<5	<5	---
Nitrobenzene	<5	<5	<5	<5	10
N-Nitrosodiethylamine	<5	<5	<5	<5	20
N-Nitroso-di-n-butylamine	<5	<5	<5	<5	20
Nonylphenol	<333	<333	<333	<333	333
Pentachlorobenzene	<5	<5	<5	<5	20
Pentachlorophenol	<5	<5	<5	<5	5
Phenanthrene	<5	<5	<5	<5	10
Polychlorinated biphenyls (PCBs) (**)	<.1	<.1	<.1	<.1	0.2
Pyridine	<5	<5	<5	<5	20
1,2,4,5-Tetrachlorobenzene	<5	<5	<5	<5	20
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	10
Tetrachloroethene [Tetrachloroethylene]	<5	<5	<5	<5	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Toluene	<5	<5	<5	<5	10
1,1,1-Trichloroethane	<5	<5	<5	<5	10
1,1,2-Trichloroethane	<5	<5	<5	<5	10
Trichloroethene [Trichloroethylene]	<5	<5	<5	<5	10
2,4,5-Trichlorophenol	<5	<5	<5	<5	50
TTHM (Total trihalomethanes)	29	47	<10	33	10
Vinyl chloride	<5	<5	<5	<5	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 "<".

#### 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)

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.: N/A

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)	<i>E. coli</i> is monitored at internal Outfall 101 and results are submitted monthly to TCEQ.				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.: [Click to enter text.](#)

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



Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
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)*
Bromide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.3	2.79			400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	60 PCU				—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<.4				—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<.01				—
Sulfite (as SO <sub>3</sub> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<2				—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	.05				—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<20				20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<.0003				0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	.428				7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.23				20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	.0555				0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	.199				1
Tin, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<.005				5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<.03				30

**TABLE 7 (Instructions, Page 60)**

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

☐ N/A

**Table 7 for Applicable Industrial Categories**

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input checked="" type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<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)
Acrolein	<20	<20	<20	<20	50
Acrylonitrile	<20	<20	<20	<20	50
Benzene	<5	<5	<5	<5	10
Bromoform	<5	<5	<5	<5	10
Carbon tetrachloride	<2	<2	<2	<2	2
Chlorobenzene	<5	<5	<5	<5	10
Chlorodibromomethane	<5	<5	<5	<5	10
Chloroethane	<5	<5	<5	<5	50
2-Chloroethylvinyl ether	<5	<5	<5	<5	10
Chloroform	29	47	<10	33	10
Dichlorobromomethane [Bromodichloromethane]	<5	<5	<5	<5	10
1,1-Dichloroethane	<5	<5	<5	<5	10
1,2-Dichloroethane	<5	<5	<5	<5	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<5	<5	<5	<5	10
1,2-Dichloropropane	<5	<5	<5	<5	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<5	<5	<5	<5	10
Ethylbenzene	<5	<5	<5	<5	10
Methyl bromide [Bromomethane]	<5	<5	<5	<5	50
Methyl chloride [Chloromethane]	<5	<5	<5	<5	50
Methylene chloride [Dichloromethane]	<5	<5	<5	<5	20
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	10
Tetrachloroethylene [Tetrachloroethene]	<5	<5	<5	<5	10
Toluene	<5	<5	<5	<5	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<4	<4	<4	<4	10
1,1,1-Trichloroethane	<5	<5	<5	<5	10
1,1,2-Trichloroethane	<5	<5	<5	<5	10
Trichloroethylene [Trichloroethene]	<5	<5	<5	<5	10
Vinyl chloride	<5	<5	<5	<5	10

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: **001**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol	<5	<5	<5	<5	10
2,4-Dichlorophenol	<5	<5	<5	<5	10
2,4-Dimethylphenol	<5	<5	<5	<5	10
4,6-Dinitro-o-cresol	<10	<10	<10	<10	50
2,4-Dinitrophenol	<10	<10	<10	<10	50
2-Nitrophenol	<5	<5	<5	<5	20
4-Nitrophenol	<10	<10	<10	<10	50
p-Chloro-m-cresol	<5	<5	<5	<5	10
Pentachlorophenol	<5	<5	<5	<5	5
Phenol	<2	<2	<2	<2	10
2,4,6-Trichlorophenol	<5	<5	<5	<5	10

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: **001**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene	<5	<5	<5	<5	10
Acenaphthylene	<5	<5	<5	<5	10
Anthracene	<5	<5	<5	<5	10
Benzidine	<5	<5	<5	<5	50
Benzo(a)anthracene	<5	<5	<5	<5	5
Benzo(a)pyrene	<5	<5	<5	<5	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<5	<5	<5	<5	10
Benzo(ghi)perylene	<5	<5	<5	<5	20

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Benzo(k)fluoranthene	<5	<5	<5	<5	5
Bis(2-chloroethoxy)methane	<5	<5	<5	<5	10
Bis(2-chloroethyl)ether	<5	<5	<5	<5	10
Bis(2-chloroisopropyl)ether	<5	<5	<5	<5	10
Bis(2-ethylhexyl)phthalate	<5	<5	<5	<5	10
4-Bromophenyl phenyl ether	<5	<5	<5	<5	10
Butylbenzyl phthalate	<5	<5	<5	<5	10
2-Chloronaphthalene	<5	<5	<5	<5	10
4-Chlorophenyl phenyl ether	<5	<5	<5	<5	10
Chrysene	<5	<5	<5	<5	5
Dibenzo(a,h)anthracene	<5	<5	<5	<5	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<10	<10	<10	<10	10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<10	<10	<10	<10	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<10	<10	<10	<10	10
3,3'-Dichlorobenzidine	<5	<5	<5	<5	5
Diethyl phthalate	<5	<5	<5	<5	10
Dimethyl phthalate	<2	<2	<2	<2	10
Di-n-butyl phthalate	<5	<5	<5	<5	10
2,4-Dinitrotoluene	<5	<5	<5	<5	10
2,6-Dinitrotoluene	<5	<5	<5	<5	10
Di-n-octyl phthalate	<5	<5	<5	<5	10
1,2-Diphenylhydrazine (as Azobenzene)	<5	<5	<5	<5	20
Fluoranthene	<5	<5	<5	<5	10
Fluorene	<5	<5	<5	<5	10
Hexachlorobenzene	<5	<5	<5	<5	5
Hexachlorobutadiene	<2	<2	<2	<2	10
Hexachlorocyclopentadiene	<5	<5	<5	<5	10
Hexachloroethane	<2	<2	<2	<2	20
Indeno(1,2,3-cd)pyrene	<5	<5	<5	<5	5
Isophorone	<5	<5	<5	<5	10
Naphthalene	<2	<2	<2	<2	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Nitrobenzene	<5	<5	<5	<5	10
N-Nitrosodimethylamine	<5	<5	<5	<5	50
N-Nitrosodi-n-propylamine	<5	<5	<5	<5	20
N-Nitrosodiphenylamine	<5	<5	<5	<5	20
Phenanthrene	<5	<5	<5	<5	10
Pyrene	<5	<5	<5	<5	10
1,2,4-Trichlorobenzene	<5	<5	<5	<5	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)*	MAL (µg/L)
Aldrin	<.005				0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<.005				0.05
beta-BHC [beta-Hexachlorocyclohexane]	<.01				0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<.005				0.05
delta-BHC [delta-Hexachlorocyclohexane]	<.01				0.05
Chlordane	<.02				0.2
4,4'-DDT	<.02				0.02
4,4'-DDE	<.005				0.1
4,4'-DDD	<.02				0.1
Dieldrin	<.005				0.02
Endosulfan I (alpha)	<.01				0.01
Endosulfan II (beta)	<.005				0.02
Endosulfan sulfate	<.1				0.1
Endrin	<.01				0.02
Endrin aldehyde	<.05				0.1
Heptachlor	<.005				0.01
Heptachlor epoxide	<.083				0.01
PCB 1242	<.1	<.1	<.1	<.1	0.2
PCB 1254	<.1	<.1	<.1	<.1	0.2
PCB 1221	<.1	<.1	<.1	<.1	0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1232	<.1	<.1	<.1	<.1	0.2
PCB 1248	<.1	<.1	<.1	<.1	0.2
PCB 1260	<.1	<.1	<.1	<.1	0.2
PCB 1016	<.1	<.1	<.1	<.1	0.2
Toxaphene	<.24				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 (Ronnell) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: [Click to enter text.](#)

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: [Click to enter text.](#)

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

Table 12 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50



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

**TABLE 13 (HAZARDOUS SUBSTANCES)**

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

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

☐ Yes ☒ No

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

☒ Yes ☐ No

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

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

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
Vanadium (total)	7440-62-2	<5.0				EPA 200.8 5.4

<b>Pollutant</b>	<b>CASRN</b>	<b>Sample 1 (µg/L)</b>	<b>Sample 2 (µg/L)</b>	<b>Sample 3 (µg/L)</b>	<b>Sample 4 (µg/L)</b>	<b>Analytical Method</b>

# 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: [Click to enter text.](#)
2. The distance and direction from the outfall to the drinking water supply intake: [Click to enter text.](#)

- 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: [Click to enter text.](#) feet

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: [Click to enter text.](#)

- 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: [Click to enter text.](#)

### 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: Unnamed Ditch
- b. Check the appropriate description of the immediate receiving waters:
- ☐ Lake or Pond
    - Surface area (acres): Click to enter text.
    - Average depth of the entire water body (feet): Click to enter text.
    - Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.
  - ☒ Man-Made Channel or Ditch
  - ☐ Stream or Creek
  - ☐ Freshwater Swamp or Marsh
  - ☐ Tidal Stream, Bayou, or Marsh
  - ☐ Open Bay
  - ☐ Other, specify:

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: Click to enter text.

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Willow Marsh Bayou (flow is dependent on the irrigation of the adjacent rice fields)

- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

☒ Yes ☐ No

If **yes**, describe how: The volume of flow increases significantly at Willow Marsh Bayou.

- f. General observations of the water body during normal dry weather conditions: The primary flow in the unnamed ditch is from Outfall 001. During normal dry weather, the flow is at the bottom of the ditch.

Date and time of observation: 06/17/2025

- g. The water body was influenced by stormwater runoff during observations.

☐ Yes ☒ No

If **yes**, describe how: Click to enter text.

## 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):

☐ oil field activities  
☐ agricultural runoff  
☐ upstream discharges

☐ urban runoff  
☐ septic tanks  
☒ other, specify: There is no receiving water upstream of Outfall 001. Upstream of the outfall is a man-made ditch on facility property that receives wastewaters discharged through Outfall 001.

- b. Uses of water body observed or evidence of such uses (check all that apply):

☐ livestock watering  
☐ non-contact recreation  
☐ domestic water supply  
☐ contact recreation  
☐ fishing

☐ industrial water supply  
☐ irrigation withdrawal  
☐ navigation  
☐ picnic/park activities  
☒ other, specify: Occasional fishing 2 miles downstream in Willow Marsh Bayou when flow conditions permit.

- 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:** See Item 2 below.

### 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: City of Port Arthur Port Access WWTP

TCEQ Permit/Registration Number: WQ0010364002

County where disposal site is located: Jefferson

c. Method of sewage sludge transportation:

☒ truck    ☐ train    ☐ pipe    ☐ other: [Click to enter text.](#)

TCEQ Hauler Registration Number: 23833

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:** Attachment 8 – General Waste Discharge Permit GFL

### 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
002	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input 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:** Attachment 6 – Outfall 002 Site Map

### **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**

<b>Outfall</b>	<b>Area of Impervious Surface (include units)</b>	<b>Total Area Drained (include units)</b>
002	3 Acres	50 Acres

- b. Provide the following local area rainfall information and the source of the information.  
Wettest month: June  
Average rainfall for wettest month (total inches): 7.2  
25-year, 24-hour rainfall (inches): 10.2  
Source: National Weather Service; Flood Protection Study City of Beaumont, TX
- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** N/A
- 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:** The Outfall 002 Drainage Area contains railcar spurs for staging railcars.
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: Railcars are managed to be closed and cleaned prior to staging in this area.

## 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): 04/10/2025
- 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 14 for Outfall No.: 002**

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)	7.59(max)	—	7.59(min)	—		—
Total suspended solids	21		21			—
Chemical oxygen demand	25		25			—
Total organic carbon	5.6		5.6			—
Oil and grease	<2.2		<2.2			—
Arsenic, total	.00114		.00114			0.0005
Barium, total	.0564		.0564			0.003
Cadmium, total	<.001		<.001			0.001
Chromium, total	<.003		<.003			0.003
Chromium, trivalent	<.003		<.003			—
Chromium, hexavalent	<.003		<.003			0.003

<b>Pollutant</b>	<b>Grab Sample* Maximum (mg/L)</b>	<b>Composite Sample** Maximum (mg/L)</b>	<b>Grab Sample* Average (mg/L)</b>	<b>Composite Sample** Average (mg/L)</b>	<b>Number of Storm Events Sampled</b>	<b>MAL (mg/L)</b>
Copper, total	<.002		<.002			0.002
Lead, total	<.0005		<.0005			0.0005
Mercury, total	<.000005		<.000005			0.000005
Nickel, total	.00314		.00314			0.002
Selenium, total	<.005		<.005			0.005
Silver, total	<.0005		<.0005			0.0005
Zinc, total	.00513		.00513			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 15 for Outfall No.: 002**

<b>Pollutant</b>	<b>Grab Sample* Maximum (mg/L)</b>	<b>Composite Sample** Maximum (mg/L)</b>	<b>Grab Sample* Average (mg/L)</b>	<b>Composite Sample** Average (mg/L)</b>	<b>Number of Storm Events Sampled</b>
Chlorine, Total Residual	<.02		<.02		
Ammonia-Nitrogen	<.20		<.20		
BOD, 5-Day	<1.0		<1.0		
Phosphorus, Total	.22		.22		
Nitrate+Nitrite-Nitrogen	.72		.72		
Nitrate-Nitrogen	.72		.72		
Sulfate	13.3		13.3		
Iron, Total	.0411		.0411		
Magnesium, Total	3.28		3.28		
Titanium, Total	<.005		<.005		
Color	40 PCU		40 PCU		
Surfactants	.05		.05		
Molybdenum, Total	.00674		.00674		
Tin, Total	<.005		<.005		
Bromide	<.20		<.20		
Boron	.0437		.0437		
Aluminum, Total	.130		.130		
Antimony, Total	<.005		<.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
Beryllium, Total	<.005		<.005		
Cobalt, Total	<.003		<.003		
Manganese, Total	.00661		.00661		
Thallium, Total	<.005		<.005		

\* Taken during first 30 minutes of storm event

\*\* Flow-weighted composite sample

**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: The Outfall has a gate that holds the drainage area water until the gate is opened. At the time of testing the Outfall was holding water that had fallen since 02/28/2025, which is the last time the gate was operated. The gate was open long enough to get a sample for this test.

Duration of storm event (minutes): N/A

Total rainfall during storm event (inches): During the period from 02/28/2025 to 04/10/2025 3.22 inches of rain fell at the site

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

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

Total stormwater flow from rain event (gallons): It is estimated that there were 1.12 Million Gallons being held when the samples were taken

Provide a description of the method of flow measurement or estimate: The flow is estimated by the rainfall amount and the area of the drainage

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

**TCEQ USE ONLY:**

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

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

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

Agency Receiving SPIF:

\_\_\_\_ Texas Historical Commission

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

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

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

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

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

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

The following applies to all applications:

1. Permittee: ExxonMobil Oil Corporation

Permit No. WQ00 02029000EPA ID No. TX 0068934

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

11440 U.S. Highway 90, on the north side of U.S. Highway 90, and approximately 2.5 miles west of the intersection of U.S. Highway 90 and Major Drive, west of the City of Beaumont, Jefferson County, TX 77713.

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): Mr.

First and Last Name: Taylor Clift

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

Title: Environmental Advisor

Mailing Address: P.O. Box 2295

City, State, Zip Code: Beaumont, TX 77704-2295

Phone No.: (409) 269-9875 Ext.:

Fax No.:

E-mail Address: taylor.m.clift@exxonmobil.com

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

N/A

4. 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 Outfall 001 to an unnamed ditch; thence to Willow Marsh Bayou; thence to Hillebrandt Bayou in Segment No. 0704 of the Neches-Trinity River Basin; and via Outfall 002 to Willow Marsh Bayou; thence to Hillebrandt Bayou in Segment No. 0704 of the Neches Trinity River Basin.

5. 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).

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

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

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

☐ Disturbance of vegetation or wetlands

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

Not applicable.

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

The property has native vegetation in non-developed areas. Developed areas within the property has process units, administrative buildings, piping, roadways, and other infrastructure related to polyethylene production.

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

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

See Item 4 below.

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

Prior to the construction of the Polyethylene Plant, the property was used for agricultural purposes (i.e., rice farming). Construction began in 1973; production began in 1977. The architect and main initial contractor was Stearns & Rogers. The plant has gone through a number of construction phases and currently operates seven (7) reactors.



## TCEQ ePay Voucher Receipt

### Transaction Information

**Voucher Number:** 774853  
**Trace Number:** 582EA000676331  
**Date:** 07/15/2025 08:53 AM  
**Payment Method:** CC - Authorization 0000035795  
**Voucher Amount:** \$2,000.00  
**Fee Type:** WW PERMIT - MAJOR INDUSTRIAL FACILITY - MAJOR AMENDMENT  
**ePay Actor:** LAUREN WHITE

### Payment Contact Information

**Name:** LAUREN WHITE  
**Company:** EXXONMOBIL  
**Address:** 1795 BURT, BEAUMONT, TX 77701  
**Phone:** 409-269-9696

### Site Information

**Site Name:** EXXONMOBIL POLYETHYLENE PLANT  
**Site Address:** 11440 HIGHWAY 90, BEAUMONT, TX 77713  
**Site Location:** BPEP

### Customer Information

**Customer Name:** EXXONMOBIL POLYETHYLENE PLANT  
**Customer Address:** 11440 HIGHWAY 90, BEAUMONT, TX 77713

### Other Information

**Program Area ID:** 000202900

## TCEQ ePay Voucher Receipt

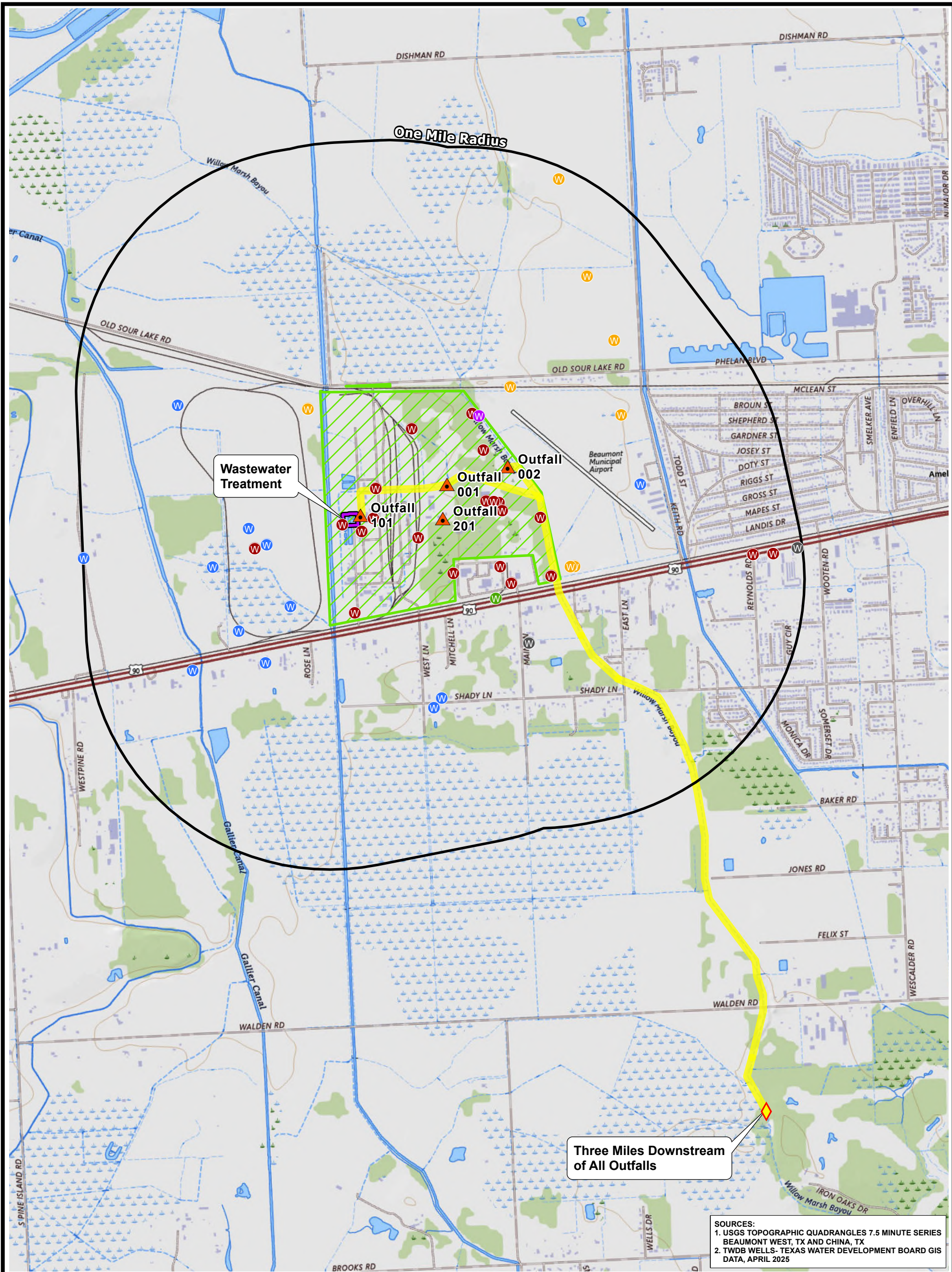
### Transaction Information

<b>Voucher Number:</b>	774854
<b>Trace Number:</b>	582EA000676331
<b>Date:</b>	07/15/2025 08:53 AM
<b>Payment Method:</b>	CC - Authorization 0000035795
<b>Voucher Amount:</b>	\$50.00
<b>Fee Type:</b>	30 TAC 305.53B WQ NOTIFICATION FEE
<b>ePay Actor:</b>	LAUREN WHITE

### Payment Contact Information

<b>Name:</b>	LAUREN WHITE
<b>Company:</b>	EXXONMOBIL
<b>Address:</b>	1795 BURT, BEAUMONT, TX 77701
<b>Phone:</b>	409-269-9696





SOURCES:  
1. USGS TOPOGRAPHIC QUADRANGLES 7.5 MINUTE SERIES  
BEAUMONT WEST, TX AND CHINA, TX  
2. TWDB WELLS- TEXAS WATER DEVELOPMENT BOARD GIS  
DATA, APRIL 2025

Beaumont Polyethylene Plant

Wastewater Treatment Plant

One Mile Radius

Outfall Location

Discharge Route

Downstream Markers

TWDB Wells

Domestic / Public Supply

Environmental Soil Boring

Industrial / Monitor

Irrigation

Plugged or Destroyed / Unused

Rig Supply

0

1,000

2,000

FEET

1" = 2,000 FEET

1:24,000

EXXONMOBIL OIL CORPORATION

BEAUMONT POLYETHYLENE PLANT

USGS MAP

DRAWN BY: L WILSON

CHECKED BY: T CLIFT

APPROVED BY: T CLIFT

DATE: April 2025

SCALE: AS NOTED

DATE PRINTED: 4/1/2025

PROJ. NO. TPDES 2025

FILE NO. USGS

sitemap

your mapping professional

J:\PJ\ExxonMobil BPE\TPDES 2025\BPEP GIS.aprx





# TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
<b>2. Customer Reference Number</b> (if issued)	<a href="#">Follow this link to search for CN or RN numbers in Central Registry**</a>	<b>3. Regulated Entity Reference Number</b> (if issued)
CN 600920748		RN 100211903

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
ExxonMobil Oil Corporation					
<b>7. TX SOS/CPA Filing Number</b>		<b>8. TX State Tax ID</b> (11 digits)		<b>9. Federal Tax ID</b> (9 digits)	
0001978906		11354015700		13-5409005	
<b>10. DUNS Number</b> (if applicable)					
001213214					
<b>11. Type of Customer:</b>		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
<b>12. Number of Employees</b>		<b>13. Independently Owned and Operated?</b>			
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input checked="" type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
<b>15. Mailing Address:</b>		P.O. Box 2295			
City		Beaumont		State TX	
ZIP		77704		ZIP + 4 2295	
<b>16. Country Mailing Information</b> (if outside USA)				<b>17. E-Mail Address</b> (if applicable)	
				Beaumont.Env.Admin@exxonmobil.com	

<b>18. Telephone Number</b>	<b>19. Extension or Code</b>	<b>20. Fax Number (if applicable)</b>
( 409 ) 240-3534		(   ) -

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected, a new permit application is also required.)								
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)								
ExxonMobil Beaumont Polyethylene Plant								
<b>23. Street Address of the Regulated Entity:</b>  (No PO Boxes)	11440 Highway 90							
	<b>City</b>	Beaumont	<b>State</b>	TX	<b>ZIP</b>	77713	<b>ZIP + 4</b>	3486
<b>24. County</b>	Jefferson							

If no Street Address is provided, fields 25-28 are required.

<b>25. Description to Physical Location:</b>								
<b>26. Nearest City</b>						<b>State</b>	<b>Nearest ZIP Code</b>	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
<b>27. Latitude (N) In Decimal:</b>						<b>28. Longitude (W) In Decimal:</b>		
Degrees	Minutes		Seconds		Degrees	Minutes		Seconds
<b>29. Primary SIC Code</b> (4 digits)	<b>30. Secondary SIC Code</b> (4 digits)		<b>31. Primary NAICS Code</b> (5 or 6 digits)			<b>32. Secondary NAICS Code</b> (5 or 6 digits)		
2821	2819		325211					
<b>33. What is the Primary Business of this entity?</b> (Do not repeat the SIC or NAICS description.)								
Polyethylene Production								
<b>34. Mailing Address:</b>	P.O. Box 2295							
	<b>City</b>	Beaumont	<b>State</b>	TX	<b>ZIP</b>	77704	<b>ZIP + 4</b>	2295
<b>35. E-Mail Address:</b>	Beaumont.Env.Admin@exxonmobil.com							
<b>36. Telephone Number</b>	<b>37. Extension or Code</b>		<b>38. Fax Number (if applicable)</b>					
( 409 ) 240-3435			(   ) -					

**39. TCEQ Programs and ID Numbers** Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ000202900			

## SECTION IV: Preparer Information

<b>40. Name:</b>	Taylor Clift	<b>41. Title:</b>	Environmental Advisor
<b>42. Telephone Number</b>	<b>43. Ext./Code</b>	<b>44. Fax Number</b>	<b>45. E-Mail Address</b>
( 409 ) 269-9875		( ) -	taylor.m.clift@exxonmobil.com

## SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

<b>Company:</b>	ExxonMobil Oil Corporation	<b>Job Title:</b>	Plant Manager
<b>Name (In Print):</b>	Samantha Roberts	<b>Phone:</b>	( 832 ) 625- 4133
<b>Signature:</b>		<b>Date:</b>	8/4/2025



## 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.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements. After filling in the information for your facility delete these instructions.

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.*

Exxonmobil Oil Corporation (CN600920748) operates the Beaumont Polyethylene Plant (RN102450756), a HDPE and LDPE pellets and resins manufacturing site. The facility is located at 11440 U.S. Highway 90, in Beaumont, Jefferson County, Texas 77713. ExxonMobil Oil Corporation is submitting an application for permit renewal without changes.

Discharges from the facility are expected to contain biological oxygen demand (5-day), total suspended solids, chemical oxygen demand, total organic carbon, oil and grease, sulfate, residual chlorine, and zinc. Process wastewater, sanitary sewage, process stormwater and certain utility wastewater is treated by neutralization, oil removal, equalization, activated sludge biodegradation (aeration), and sedimentation. Other wastewaters authorized for discharge including certain utility waters and certain stormwater do not receive treatment prior to discharge.

## PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

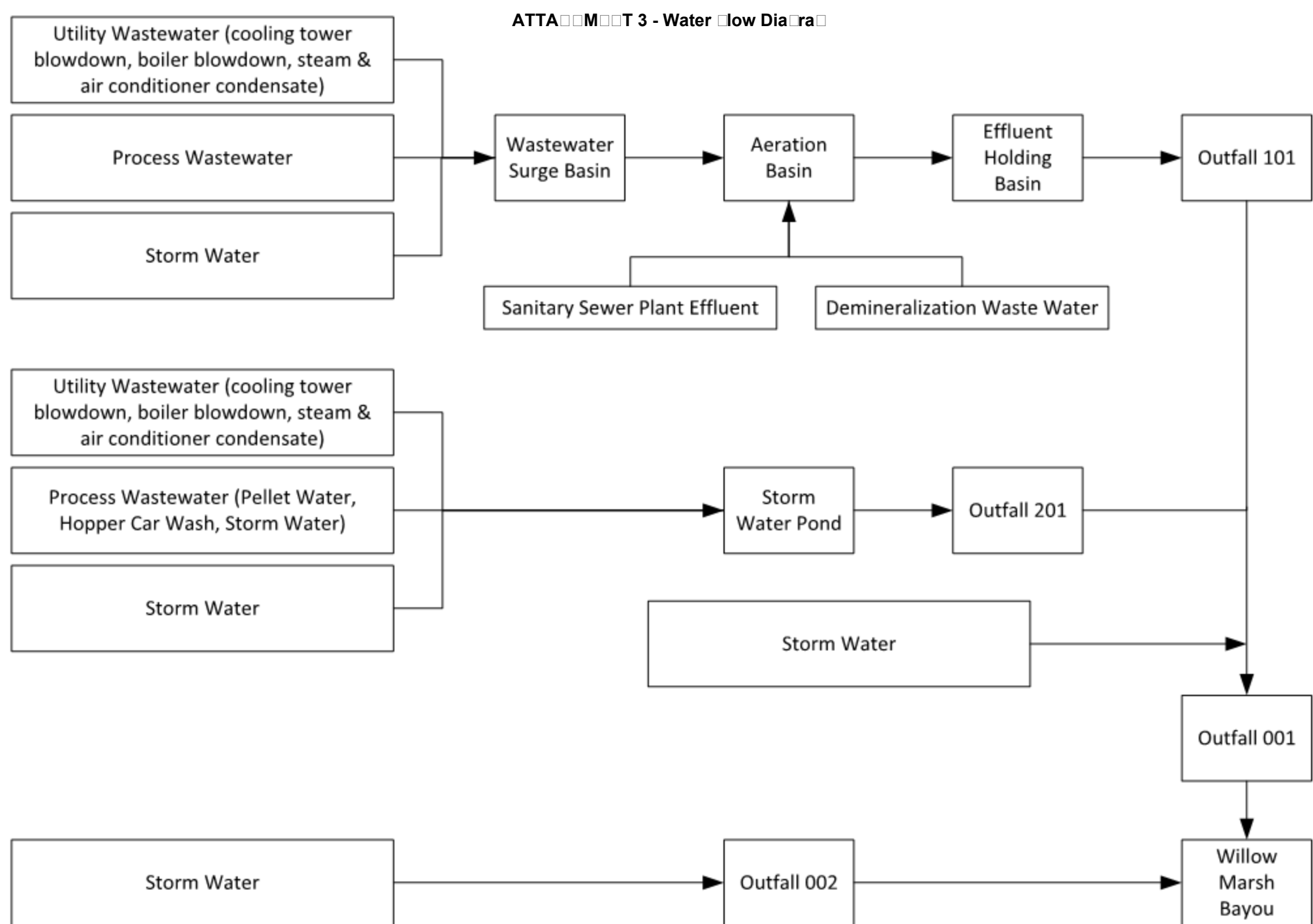
### AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

*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.*

ExxonMobil Oil Corporation (CN600920748) opera la Planta de Polietileno de Beaumont (RN102450756), un sitio de fabricación de gránulos y resinas de HDPE y LDPE. La instalación está ubicada en 11440 U.S. Highway 90, en Beaumont, Condado de Jefferson, Texas 77713. ExxonMobil Oil Corporation está presentando una solicitud de renovación de permiso sin cambios.

Se espera que las descargas de la instalación contengan demanda biológica de oxígeno (5 días), sólidos suspendidos totales, demanda química de oxígeno, carbono orgánico total, aceites y grasas, sulfato, cloro residual y zinc. Las aguas residuales del proceso, aguas negras sanitarias, aguas pluviales del proceso y ciertas aguas residuales de servicios públicos se tratan mediante neutralización, eliminación de aceites, ecualización, biodegradación por lodos activados (aireación) y sedimentación. Otras aguas residuales autorizadas para descarga, incluidas ciertas aguas de servicios públicos y algunas aguas pluviales, no reciben tratamiento antes de su descarga.





This is a detailed site plan of the Elk River Water Treatment Plant. The plan shows various buildings including the Main Control Room, Maintenance Shop, and various storage areas. It also depicts infrastructure like Outfalls 001, 002, and 003, a Detention Pond Area, and a Sludge Dewatering Basin. The site is bordered by Willow Marsh Bay to the west and a road to the east. A north arrow is located in the upper left corner.

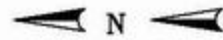
A	ISSUED FOR APPROVAL		-	-	
NO.	REVISIONS		DATE	BY	CH'D APP

MANAGER OF TECHNICAL DEPARTMENT
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GENERAL	<h1 style="margin: 0;">ENVIRONMENTAL OUTFALL LOCATION WATER SOURCE</h1>	CIVIL
PROJ. ENG. _____ DESIGN CHECK _____ ENG. APPROVAL _____ SCALE 1" = 200'	DESIGNER <u>RCB</u> _____ DIM. CHECK _____ DRAFT, APPROVAL _____ DATE 12-3-19	
DWG. NO.	ENVIRONMENTAL	REV. <u>A</u> FILE:

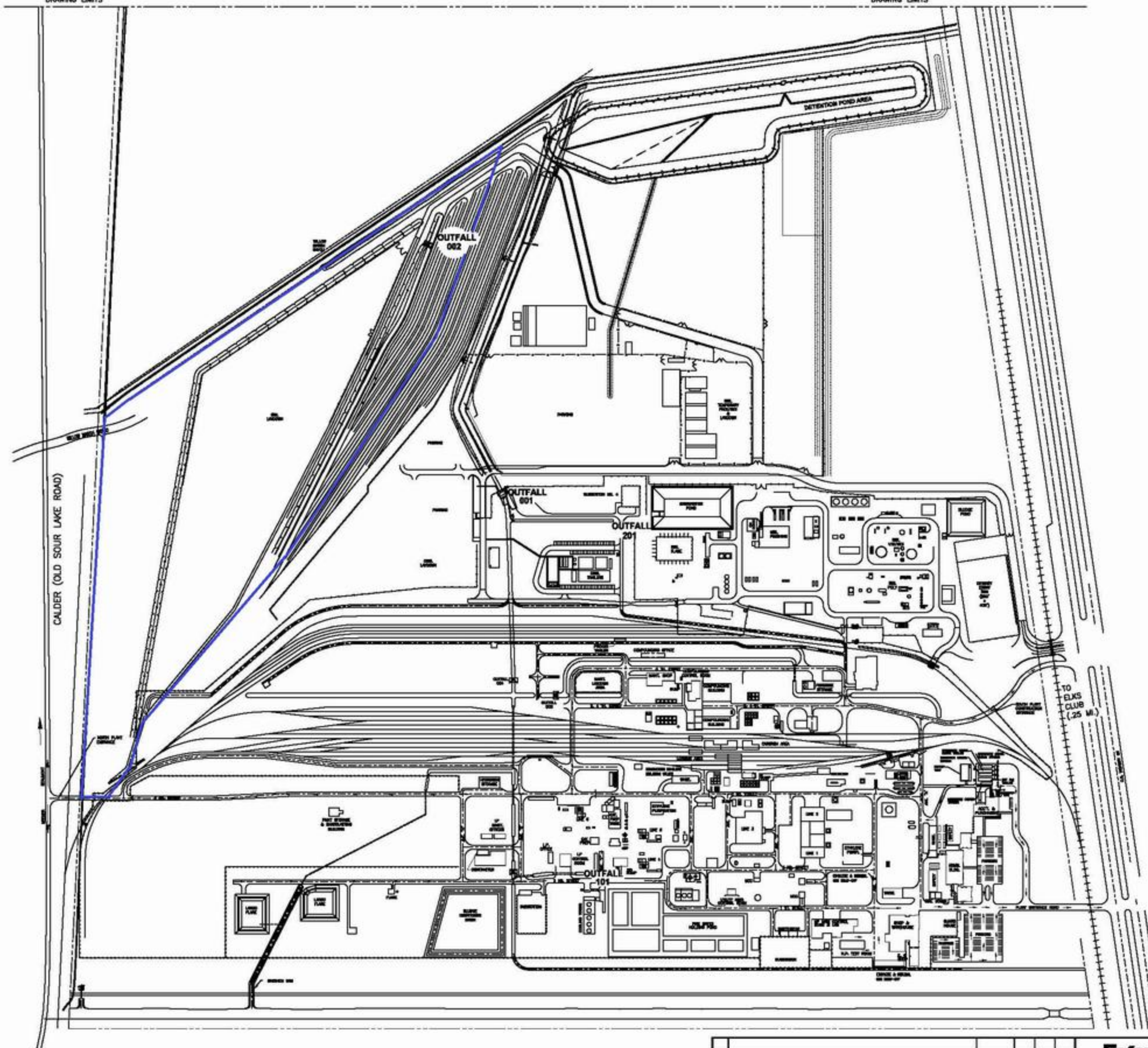
### Wastewater Flows by Outfall

Outfall		Wastewater Sources	Monthly Average (MGD)	Flow % by Wastewater Source	Applicable Effluent Guideline (EGL)[1]	
001	101	Process wastewater and storm water	0.475	47%	40 CFR 414, Subpart D	
		Utility wastewater	0.508	51%	N/A	
		Domestic wastewater	0.017	2%		
		Outfall 101 total [2]		1.000		100%
	201	Process wastewater and storm water (total)	0.336	37%	40 CFR 414, Subpart D	N/A
		Pellet water	0.072			
		Hopper car wash	0.130			
		Storm water	0.134	63%		
		Utility wastewater (total)	0.564			
		Cooling tower blowdown	0.562			
		Boiler blowdown	0.001			
		Water treatment wastewaters	0.001			
		Outfall 201 total [2]			0.900	
	301	Reporting outfall for comibined 101/201 discharge	N/A			
	Other 001 flows	Steam condensate	Variable			
		Air conditioning condensate	Variable			
		Hydrostatic test water	Variable			
		Storm water	Variable			
002		Storm water	Intermittent and variable			
Notes						
[1]	40 CFR 414, Subpart D - Organic Chemicals, Plastics, and Synthetic Fibers, Thermoplastic Resins					
[2]	Based on permitted daily average flow					
N/A	Not applicable					



### DRAWING LIMITS

**DRAWING LIMITS**



Outfall 002  
Drainage Area

A	ISSUED FOR APPROVAL		DATE	BY	CYD A
NO.	REVISIONS		DATE	BY	CYD A

**ExxonMobil**  
*Chemical*  
ExxonMobil Chemical Company  
POLYMER GROUP  
IMMEDIATE POLYETHYLENE PLANT

MANAGER OF TECHNICAL DEPARTMENT
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PROJ. NO.

GENERAL	ENVIRONMENTAL OUTFALL LOCATION WATER SOURCE		CIVIL
PROJ. ENG. _____	DESIGNER _____	RCB _____	
DESIGN CHECK _____	QSA CHECK _____		
ENG. APPROVAL _____	DRAFT APPROVAL _____		
SCALE 1" = 200'	DATE 12-3-19		
DWG. NO. ENVIRONMENTAL			REV. A

Earth Analytical Services  
4825 Ward Drive  
Beaumont, TX 77705  
(409) 842-9793

**Compounds Analyzed**

BOD (5-day)	Anthracene	Ethylbenzene
CBOD (5-day)	Benzene	Hexachlorobenzene
Chemical oxygen demand	Benzidine	Hexachlorobutadiene
Total organic carbon	Benzo(a)anthracene	Hexachlorocyclopentadiene
Dissolved oxygen	Benzo(a)pyrene	Hexachloroethane
Ammonia nitrogen	Bis(2-chloroethyl)ether	Methyl ethyl ketone
Total suspended solids	Bis(2-ethylhexyl)phthalate	Nitrobenzene
Nitrate nitrogen	Bromodichloromethane	N-Nitrosodiethylamine
Total organic nitrogen	[Dichlorobromomethane]	N-Nitroso-di-n-butylamine
Total phosphorus	Bromoform	Pentachlorobenzene
Oil and grease	Carbon tetrachloride	Pentachlorophenol
Total residual chlorine	Chlorobenzene	Phenanthrene
Total dissolved solids	Chlorodibromomethane	Polychlorinated biphenyls (PCBs) (**)
Sulfate	[Dibromochloromethane]	Pyridine
Chloride	Chloroform	1,2,4,5-Tetrachlorobenzene
Fluoride	Chrysene	1,1,2,2-Tetrachloroethane
Total alkalinity (mg/L as CaCO <sub>3</sub> )	m-Cresol [3-Methylphenol]	Tetrachloroethene
Temperature (°F)	o-Cresol [2-Methylphenol]	[Tetrachloroethylene]
pH (standard units)	p-Cresol [4-Methylphenol]	Toluene
Aluminum, total	1,2-Dibromoethane	1,1,1-Trichloroethane
Antimony, total	m-Dichlorobenzene	1,1,2-Trichloroethane
Arsenic, total	[1,3-Dichlorobenzene]	Trichloroethene
Barium, total	o-Dichlorobenzene	[Trichloroethylene]
Beryllium, total	[1,2-Dichlorobenzene]	2,4,5-Trichlorophenol
Cadmium, total	p-Dichlorobenzene	TTHM (Total trihalomethanes)
Chromium, total	[1,4-Dichlorobenzene]	Vinyl chloride
Chromium, hexavalent	3,3'-Dichlorobenzidine	Bromide
Chromium, trivalent	1,2-Dichloroethane	Nitrate-Nitrite (as N)
Copper, total	1,1-Dichloroethene	Sulfide (as S)
Lead, total	[1,1-Dichloroethylene]	Sulfite (as SO <sub>3</sub> )
Mercury, total	Dichloromethane	Boron, total
Nickel, total	[Methylene chloride]	Cobalt, total
Selenium, total	1,2-Dichloropropane	Iron, total
Silver, total	1,3-Dichloropropene	Magnesium, total
Thallium, total	[1,3-Dichloropropylene]	Manganese, total
Zinc, total	2,4-Dimethylphenol	Molybdenum, total
Acrylonitrile	Di-n-Butyl phthalate	Tin, total

Titanium, total	2-Chloronaphthalene	4,4'-DDD
Vanadium, total	4-Chlorophenyl phenyl ether	Dieldrin
Acrolein	Dibenzo(a,h)anthracene	Endosulfan I (alpha)
Chloroethane	1,2-Dichlorobenzene	Endosulfan II (beta)
2-Chloroethylvinyl ether	[o-Dichlorobenzene]	Endosulfan sulfate
Dichlorobromomethane [Bromodichloromethane]	1,3-Dichlorobenzene	Endrin
1,1-Dichloroethane	[m-Dichlorobenzene]	Endrin aldehyde
1,1-Dichloroethylene	1,4-Dichlorobenzene	Heptachlor
[1,1-Dichloroethene]	[p-Dichlorobenzene]	Heptachlor epoxide
1,3-Dichloropropylene	Diethyl phthalate	PCB 1242
[1,3-Dichloropropene]	Dimethyl phthalate	PCB 1254
Methyl bromide [Bromomethane]	2,4-Dinitrotoluene	PCB 1221
Methyl chloride [Chloromethane]	2,6-Dinitrotoluene	PCB 1232
Methylene chloride [Dichloromethane]	Di-n-octyl phthalate	PCB 1248
1,1,2,2-Tetrachloroethane	1,2-Diphenylhydrazine (as Azobenzene)	PCB 1260
Tetrachloroethylene [Tetrachloroethene]	Fluoranthene	PCB 1016
1,2-Trans-dichloroethylene	Fluorene	Toxaphene
[1,2-Trans-dichloroethene]	Indeno(1,2,3-cd)pyrene	
Trichloroethylene [Trichloroethene]	Isophorone	
2-Chlorophenol	Naphthalene	
2,4-Dichlorophenol	N-Nitrosodimethylamine	
4,6-Dinitro-o-cresol	N-Nitrosodi-n-propylamine	
2,4-Dinitrophenol	N-Nitrosodiphenylamine	
2-Nitrophenol	Pyrene	
4-Nitrophenol	1,2,4-Trichlorobenzene	
p-Chloro-m-cresol	Aldrin	
Phenol	alpha-BHC	
2,4,6-Trichlorophenol	[alpha- Hexachlorocyclohexane]	
Acenaphthene	beta-BHC	
Acenaphthylene	[beta- Hexachlorocyclohexane]	
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	gamma-BHC	
Benzo(ghi)perylene	[gamma- Hexachlorocyclohexane]	
Benzo(k)fluoranthene	delta-BHC	
Bis(2-chloroethoxy)methane	[delta- Hexachlorocyclohexane]	
Bis(2-chloroisopropyl)ether	Chlordane	
4-Bromophenyl phenyl ether	4,4'-DDT	
Butylbenzyl phthalate	4,4'-DDE	

**Eurofins Pittsburgh**  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
(412) 963-7058

## Compounds Analyzed

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Alliance Technical Group – Akron  
3310 Win St.  
Cuyahoga Falls, OH 44223  
(330) 253-8211

## Compounds Analyzed

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## GENERALWASTE DISCHARGE PERMIT COPA No. 42024-GFL-PA

### GFL ENVIRONMENTAL

GFL Environmental, Hereinafter referred as the PERMITEE, by the City of Port Arthur (COPA), hereinafter referred to as COPA. The COPA agrees to provide treatment facilities at the City of Port Arthur Wastewater Treatment Facility, hereinafter referred to as the COPA WWTP, for processing sanitary waste consisting of portable toilet, septic tank and small<sup>1</sup> TCEQ permitted municipal wastewater treatment plant digester sludge.

### TERMS OF PERMIT

The COPA's Director of Utilities, or his/her duly authorized representative, and this permit will ensure all activities related to discharge of wastewater to the COPA's WWTP are in compliance with federal, state and local regulations. The COPA's representative for this permit and renewal purposes shall be the Pretreatment Coordinator.

#### A. Permit Expiration

This permit is effective for five years and shall become effective **April 4, 2024**. This permit will expire **April 4, 2029**, unless revoked by the COPA Director of Utilities or the director authorized representative.

#### B. Permit Application.

The Permittee is responsible for permit application and renewal. To ensure continuous services, the Permittee should apply for permit renewal at least 90-days prior to the expiration date. Permit application

<sup>1</sup> Permittee shall not accept digester sludge from municipal facilities with daily average discharges greater than 0.003 mgd.

*Pretreatment Year* as per following schedule. The report should indicate the nature and concentration of all pollutants in the effluent which are regulated by the limits set forth in Part 1.B of this permit. The

report shall also include the average and maximum daily flow rate for the reporting period. If no discharge of effluent occurred during the following months, a statement of reason is required to submit with the certification statement to comply with monitoring requirements.

b. All sampling analysis performed shall be in accordance with the methods specified in 40 CFR §136.3 by a qualified accredited laboratory (NELAC), independent laboratory. All analytical reports shall identify the methods used for analysis; contain a copy of the Chain of Custody, and a copy of the laboratory's Quality Assurance Control (QA/QC) report.

c. All samples for analysis shall be collected by a representative of the laboratory performing the analysis.

d. Continuous Dischargers- the wastewater discharge sample collected shall be collected from outfall 001. Samples collected for oil & grease, cyanide, total phenols, pH and volatile organic compounds (VOC's) must be grab samples.

**Schedules for Outfall # 001 Effluent discharge**

Frequency	Date Due	Report Due	Parameter	Type
Bi-annually	July 1 <sup>st</sup> December 1 <sup>st</sup>	August 15 <sup>th</sup> January 15 <sup>th</sup>	City of Port Arthur Technically Based Local Limits	Grab

**e. Additional Monitoring**

If the PERMITTEE monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be reported to the City in the quarterly reports.

f. The permittee must submit a written monthly flow report listing the volume discharge to the COPA.

The report or statement must be signed and declare the waste meet permit conditions and discharge limits established in the COPA Sewer Use Ordinance (SUO) Sec. 110-215(d) Local Limits.

The report must include the following statement;

The discharge volume is in compliance with the permit conditions and the COPA SUO.

"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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G. **PROHIBITED DISCHARGES**

The PERMITTEE shall not discharge wastewater containing substances prohibited in C.O. Sec. 110-215 of the general sewer use requirements which include but are not limited to the following:

- (1). **General Prohibitions.** No user shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other National, State, or local pretreatment standards or requirements.
- (2). **Specific Prohibitions.** No user shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:
  - (a) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed-cup flashpoint of less than 140°F (60NC) using the test methods specified in 40 CFR 261.21;
  - (b) Wastewater having a pH less than 5.0 or more than 10.0, or otherwise causing corrosive structural damage to the POTW or equipment;
  - (c) Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference.
  - (d) Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with the POTW;
  - (e) Wastewater having a temperature which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the Introduction into the treatment plant to exceed 104°F (40°C);
  - (f) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;
  - (g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
  - (h) Trucked or hauled pollutants, except at discharge points designated by this permit or the Director of Water Utilities in accordance with Section 110-215;
  - (j) Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair;
  - (k) Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes, and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating the City's TPDES permit;

- (l) Wastewater containing any radioactive wastes or isotopes except in compliance with applicable State or Federal regulations;
- (m) Sludge, screening, or other residues from the pretreatment of industrial wastes;
- (n) Medical wastes, except as specifically authorized by the Director of Water Utilities in a wastewater discharge permit;
- (o) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test;
- (p) Detergents, surface-active agents, or other substances, which may cause foaming in the POTW;
- (q) Any substance that would be a hazardous waste under 40 CFR Part 261. Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW. Fats, wax, grease, or oils of petroleum origin, whether emulsified or not, in excess of the values identified in (17) above or containing substances which may solidify or become viscous at degrees C) temperatures between 32 degrees F (0 degrees C) and 140 degrees F (60 degrees C);
- (r) All handling and preservation of collected samples-and laboratory analysis of samples shall be performed in accordance with 40 CFR Part 136.3 Appendix

#### **H. NOTIFICATION OF CHANGED DISCHARGE**

All Industrial Users shall promptly notify the POTW in advance of any substantial change in volume or character of the pollutants in their discharge, including the listed or characteristic hazardous waste for which the Industrial User has submitted initial notification under 40 CFR 403.12(b).

#### **I. SUBMISSION OF REPORTS**

All written reports along with certification statement required by this permit shall be submitted to the City of Port Arthur at the following address:

City of Port Arthur  
Attn: Utility Compliance Manager  
C/O Utility Pretreatment Coordinator  
P.O. Box 1089  
Port Arthur, TX 77641

#### **J. POLLUTION PREVENTION PRACTICES/ PLANS**

When possible, PERMITTEE should seek pollution prevention opportunities such as source reduction, and recycle reuse. Facility will utilize any and all Best Management Practices when applicable.

PERMITTEE shall have written Spill or Slug Control Plan for all stored or used chemicals, products, and/or wastes onsite. The plan should be posted for employees' information. The plan should include, but not be limited, to the following information:

1. Description of stored chemicals;
2. Location of stored chemicals, drains, manholes and storm drains;
3. Procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents) and/or measures and equipment for emergency response;
4. Emergency numbers and notification procedures.

#### **K. PART 4 - GENERAL CONDITIONS**

##### **1. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

##### **2. Duty to Comply**

The PERMITTEE must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

##### **3. Duty to Litigate**

The PERMITTEE shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from a noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

##### **4. Permit Action**

This permit may be modified, revoked and reissued, or terminated for good causes including, but not limited to, the following:

- (a) To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;
- (b) Material or substantial alterations or additions to the discharger's operation which were not covered in the effective permit;

- (c) A change in any condition that requires either a temporary or permanent reduction of elimination of the authorized discharge;
- (d) Information indicating that the permitted discharge poses a threat to the Control Authority's collection and treatment systems, City personnel or the receiving waters;
- (e) Violation of any terms or conditions of this permit;
- (f) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- (g) Upon request of the PERMITTEE, provided such request does not create a violation of any existing applicable requirements, standards, laws, or rules and regulations.
- (h) Upon changes to the City Ordinance governing industrial waste discharges.

The filing of a request by the PERMITTEE for a permit modification, revocation and reissuance, or termination, or a notification or planned charges or anticipated noncompliance, does not stay any permit condition.

#### **L. LIMITATION OF PERMIT TRANSFER**

Industrial user permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without the prior written approval of the City of Port Arthur. In the event of sale, the PERMITTEE must inform the purchaser of all responsibilities and obligations under this permit. There will be 90 days' advance notice requirement for the IU to notify the CA prior to the permit being transferred to the new owner or operator.

#### **M. DUTY OF REAPPLY**

If the PERMITTEE wishes to continue an activity regulated by this permit after the expiration date of this permit, the PERMITTEE must apply for and obtain a new permit. The application must be submitted at least ninety (90) days before the expiration date of this permit. Provided that such application has been filed in a timely manner the terms and conditions of this permit shall continue in full force and effect until a new permit has been issued or denied.

#### **N. DILUTION**

The PERMITTEE shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

## **O. NOTIFICATION OF THE DISCHARGE OF HAZARDOUS WASTE**

- a) Any user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities, in writing, of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the user discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification also shall contain the following information to the extent such information is known and readily available to the user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month, and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve (12) months. All notifications must take place no later than one hundred and eighty (180) days after the discharge commences. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed conditions must be submitted under Section 110-219(e) of City Ordinance. The notification requirement in this section does not apply to pollutants already reported by users subject to categorical pretreatment standards under the self-monitoring requirements of Sections 110-219(d) 1-4 of the City ordinance.
- b) Discharges are exempt from the requirements of paragraph A, above, during calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 26.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40CFR 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the user discharges more than such quantities of any hazardous waste do not require additional notification.
- c) In the case of any new regulations under Section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substances a hazardous waste, the user must notify the Director of Water Utilities, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.
- d) In the case of any notification made under this section, the user shall certify that it has a program in place to reduce the column and toxicity of hazardous wastes generated to the degree it has determined to be economically practical

## **P. ADVERSE IMPACT**

The PERMITTEE shall take all reasonable steps to minimize any adverse impact to the public treatment facilities resulting from a noncompliance with any effluent limitation specified in the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. The PERMITTEE shall immediately notify the City

of Port Arthur of slug discharges or spills that may enter the public sewer, or any other significant changes in operations, wastewater characteristics and constituents.

#### **BYPASS OF TREATMENT FACILITIES**

- (i) Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury or severe property damage or no feasible alternatives exist.
- (j) Notification of the bypass:
  - a) Anticipated bypasses. If the PERMITTEE knows in advance of the need for a bypass, it shall submit prior written notice, at least ten (10) days before the date of the bypass, to the City of Port Arthur, P.O. Box 1089, Texas 77641 Attn.: Treatment Plant Superintendent.
  - b) Unanticipated bypasses. The PERMITTEE shall immediately notify the City of Port Arthur and submit a written notice to the City within twenty-four (24) hours of becoming aware of the bypass.

#### **R. REMOVED SUBSTANCES**

Solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

#### **S. REPRESENTATIVE SAMPLING**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Monitoring points shall not be changed without notification to and the approval of the City of Port Arthur.

#### **T. INSPECTION AND ENTRY**

The PERMITTEE shall allow the Federal, State and City of Port Arthur, or an authorized representative, upon the presentation of credentials to:

- (k) Enter upon the PERMITTEE's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (l) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (m) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
- (n) Sample or monitor, for the purposes of assuring permit compliance, any substances or parameters at any location; and,



- (o) Inspect any production, manufacturing, fabricating or storage area where pollutants, regulated under the permit, could originate.

## **N. RETENTION OF RECORDS**

- (p) The PERMITTEE shall retain records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the City of Port Arthur at any time.
- (q) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the City of Port Arthur shall be retained and preserved by the PERMITTEE until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

## **U. RECORD CONTENTS**

Records of sampling information shall include:

- (r) The date, exact place, time and methods of sampling or measurements, and sample preservation technique or procedures;
- (s) Who performed the sampling or measurements?
- (t) The date(s) analyses were performed;
- (u) Who performed the analysis?
- (v) The analytical techniques or methods used; and,
- (w) The results of such analysis.

## **V. FALSIFYING INFORMATION**

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under criminal law proceedings as well as being subjected to civil penalties and injunctive relief.

## W. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the PERMITTEE from civil and/or criminal penalties for the noncompliance under C.O. 110-223 or State or Federal laws or regulations.

### *Penalties for Violations of Permit Conditions*

## C.O. 110-223 ENFORCEMENT

1. All enforcement related to the permit will be in accordance with the COPA sewer use ordinance and the COPA approved pretreatment program.
2. Anticipated Noncompliance; The PERMITTEE shall give advance notice to the City of Port Arthur of any planned changes in the permitted facility or activity within may result in the noncompliance with permit requirements.
3. **Duty to Provide Information;** The PERMITTEE shall furnish to the City of Port Arthur within a reasonable time, any information which the City of Port Arthur may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The PERMITTEE shall also furnish to the City of Port Arthur, upon request, copies of records required to be kept by this permit.

GFL Environmental

Ricard Hernandez ESH

Title and Signature

Date: 4-4-2024

COPA, Director, Regulatory Service Division

Floyd P. [Signature], Director, RSD

Title and Signature

Date: 4/4/2024

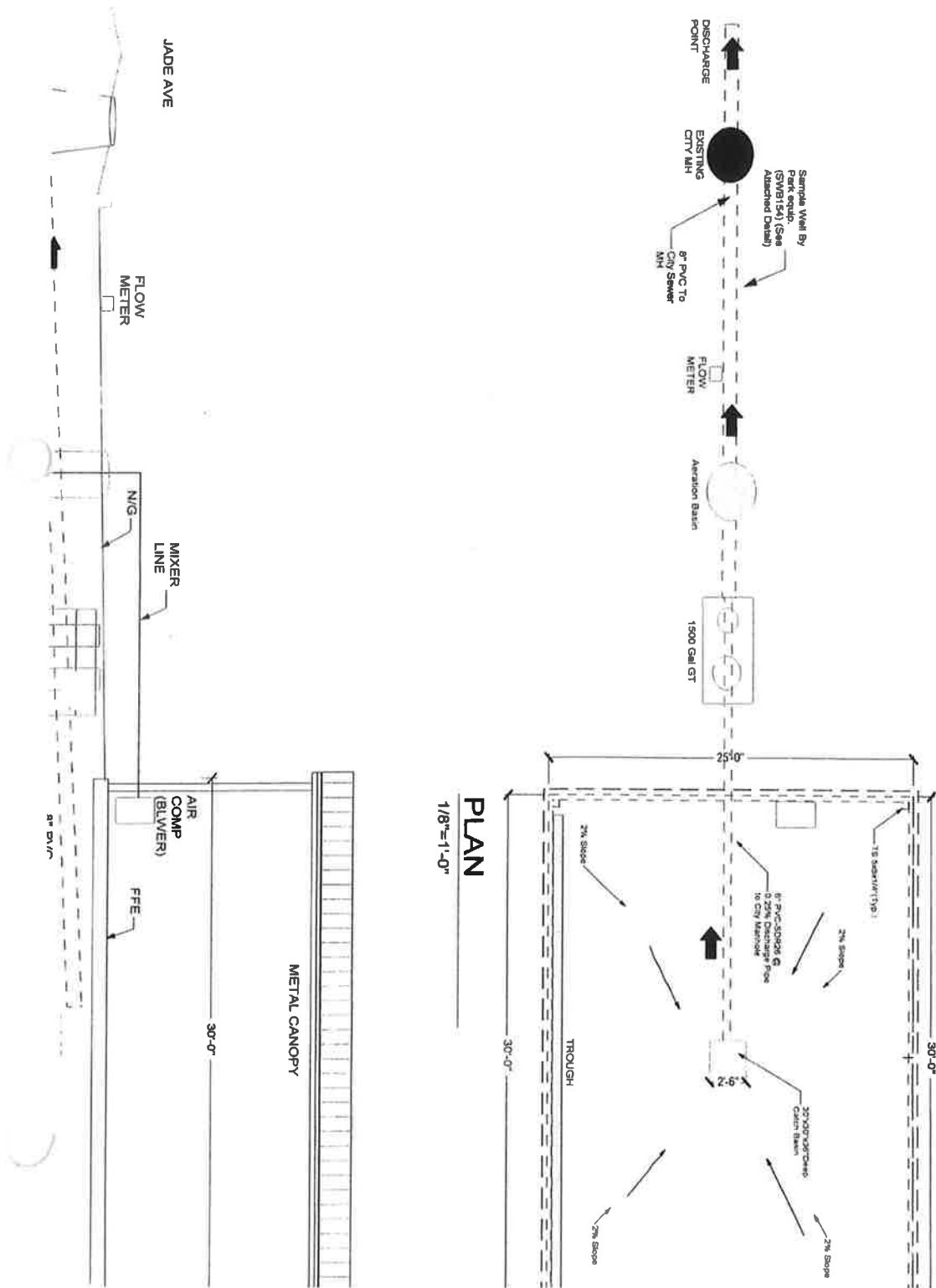




Dump Station

Outfall #002

# Process Schematic Layout Outfall #001







Sample Point Outfall# 001



Sample Point Outfall# 002

## Treatment Chemicals Safety Data Sheet Summary

Product	Type of Use	Components Listed in SDS	Outfall
Sodium Hypochlorite	disinfectant	Sodium hypochlorite [7681-52-9]	001
Caustic Soda	pH adjustment	Sodium Hydroxide [1310-73-2] Sodium Chloride [7647-14-5]	001
Nalco BT-3811	Boiler Water Treatment	Sodium hydroxide [1310-73-2]	001
3D Trasar 3DT184	Corrosion Inhibitor	Phosphoric Acid [7664-38-2}	001
3D Trasar 3DT192	Cooling Tower Water Treatment	Sulfuric Acid [7664-93-9]	001
3D Trasar 3DT265	Corrosion/Scale Inhibitor	2-Phosphono- Butanetricarboxylic Acid [37971-36-1]	001
3D Trasar 3DT392	Cooling Water Treatment	Benzotriazolium Hydrogen Sulfate	001
Nalco 3DT396	Corrosion Control	Mixture	001
3D TRASAR 3DT397	Cooling Water Corrosion Inhibitor	Modified Benimidazole Salt Organic Sulfonic Acid Acetic Acid [64-19-7]	001
Trasar 22130	Oxygen Scavenger	Carbohydrazide [497-18-7] Morpholine [110-91-8]	001
Trasar Trac 101	Closed Loop Treatment	Sodium Nitrite [7632-00-0] Sodium Molybdate [7631-95-0] Substituted Triazole	001

Product	Type of Use	Components Listed in SDS	Outfall
H-550	Biocide	Glutaraldehyde [111-30-8]	001
NALSPERSE 73551	Dispersant and Detergent	Mixture	001
TOWERBROM 960	Biocide	Sodium Dichloroisocyanurate [2893-78-9] Sodium Bromide [7647-15-6]	001
Sulfuric Acid 93%	pH Control	Sulfuric Acid [7664-93-9]	001
NALCO 7469	Antifoam	Mixture	001
Permatreat PC-39IT	Antiscalant	Mixture	001
CAT-FLOC 8103 Plus	Clarification Aid	Mixture	001
NALCO 7408	Chlorine Scavenger	Sodium Bisulfite [7631-90-5]	001
NALCO BT-3411	Boiler Water Treatment	Sodium Hydroxide [1310-73-2]	001
Tri-ACT 1825	Corrosion Inhibitor	Cyclohexylamine [108-91-8] Morpholine [110-91-8] Dethylaniline [100-37-8]	001





Univar  
3075 Highland Pkwy STE 200  
Downers Grove, IL 60515  
425-889-3400

## SAFETY DATA SHEET

### 1. Identification

**Product identifier:** SODIUM HYPOCHLORITE 10-16%

**Other means of identification**

**Synonyms:** Liquichlor, Bleach  
**CAS NUMBERS:** 7681-52-9  
**SDS number:** 000100001054

**Recommended use and restriction on use**

**Recommended use:** Reserved for industrial and professional use.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Univar

3075 Highland Pkwy STE 200

Downers Grove, IL 60515

425-889-3400

**Emergency telephone number:** For emergency assistance Involving chemicals

call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887

### 2. Hazard(s) identification

**Hazard Classification**

**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

**Environmental Hazards** Acute hazards to the aquatic environment Category 1

## Label Elements

### Hazard Symbol



### Signal Word

**Danger**

### Hazard Statement

May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Very toxic to aquatic life.

### Precautionary Statements

#### Prevention

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mists. Wear protective gloves/protective clothing/eye protection/face protection.

#### Response

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. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

**Storage** Store locked up.

**Disposal** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification** None.

### 3. Composition/information on ingredients

#### Substances

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium hypochlorite		7681-52-9	10 - 16%
Sodium hydroxide		1310-73-2	0.3 - 5%
Water		7732-18-5	80 - 89.7%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**General information:** Get medical advice/attention.

**Ingestion:** Do NOT induce vomiting. Never give liquid to an unconscious person. Get medical attention immediately.

**Inhalation:** Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

**Skin Contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye contact:** If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

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**Indication of immediate medical attention and special treatment needed**

**Treatment:** Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use: Foam. Carbon dioxide or dry powder.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:** Absorb spillage with non-combustible, absorbent material.

**Notification Procedures:** Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Do not contaminate water sources or sewer. Avoid release to the environment.

**7. Handling and storage**

**Precautions for safe handling:** Do not taste or swallow. Wash hands thoroughly after handling. Do not get in eyes. Do not get in eyes, on skin, on clothing.

**Conditions for safe storage, including any incompatibilities:** Store locked up.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Sodium hydroxide	Ceiling	2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Sodium hydroxide - Particulate.	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
Sodium hydroxide	Ceiling	2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (03 2016)
	Ceil_Tim e	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

#### Appropriate Engineering Controls

Adequate ventilation should be provided so that exposure limits are not exceeded.

#### Individual protection measures, such as personal protective equipment

##### General information:

Provide easy access to water supply and eye wash facilities. Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

##### Eye/face protection:

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

##### Skin Protection

###### Hand Protection:

Chemical resistant gloves

###### Other:

Chemical resistant clothing

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator.  
**Hygiene measures:** Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

**Physical state:** liquid  
**Form:** liquid  
**Color:** Pale yellow-green, Clear  
**Odor:** Odor of chlorine  
**Odor threshold:** No data available.  
**pH:** 10 - 12  
**Melting point/freezing point:** -20 °C  
**Initial boiling point and boiling range:** > 40 °C  
**Flash Point:** No data available.  
**Evaporation rate:** No data available.  
**Flammability (solid, gas):** No data available.  
**Upper/lower limit on flammability or explosive limits**  
**Flammability limit - upper (%):** No data available.  
**Flammability limit - lower (%):** No data available.  
**Explosive limit - upper (%):** No data available.  
**Explosive limit - lower (%):** No data available.  
**Vapor pressure:** No data available.  
**Vapor density:** No data available.  
**Relative density:** 1.224  
**Solubility(ies)**  
**Solubility in water:** Soluble  
**Solubility (other):** No data available.  
**Partition coefficient (n-octanol/water):** No data available.  
**Auto-ignition temperature:** No data available.  
**Decomposition temperature:** No data available.

Viscosity: No data available.

## 10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Stable
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Oxidizers, acids Ammonia. Amines.
Hazardous Decomposition Products:	By heating and fire, toxic vapors/gases may be formed.

## 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

Product:	LD50 (Rat): 3 - 5 g/kg
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##### Dermal

Product:	LD50 (Rabbit): > 2 g/kg
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##### Inhalation

Product:	May be harmful if inhaled.
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##### Repeated dose toxicity

Product:	No data available.
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##### Skin Corrosion/Irritation

Product:	Causes severe skin burns.
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##### Serious Eye Damage/Eye Irritation

Product:	Causes serious eye damage.
----------	----------------------------

##### Respiratory or Skin Sensitization

Product:	Not a skin sensitizer.
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##### Carcinogenicity

Product:	No data available.
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**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC50 (Shiner perch (*Cymatogaster aggregata*), 96 h): 0.033 - 0.097 mg/l  
LC50 (Bluegill (*Lepomis macrochirus*), 48 h): 0.6 mg/l

**Aquatic Invertebrates**

**Product:** LC50 (Aquatic crustacea): 1 mg/l LC50 (*Daphnia magna*, 96 h): 2.1 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** EC50 (Green algae (*Dunaliella bioculata*), 24 h): 0.6 mg/l

**Persistence and Degradability**

**Biodegradation**



<b>Product:</b>	The product solely consists of inorganic compounds which are not biodegradable.
<b>BOD/COD Ratio</b>	
<b>Product:</b>	No data available.
<b>Bioaccumulative Potential</b>	
<b>Bioconcentration Factor (BCF)</b>	
<b>Product:</b>	The product is not bioaccumulating.
<b>Partition Coefficient n-octanol / water (log Kow)</b>	
<b>Product:</b>	No data available.
<b>Mobility in Soil:</b>	No data available.
<b>Known or predicted distribution to environmental compartments</b>	
Sodium hypochlorite	No data available.
Sodium hydroxide	No data available.
Water	No data available.
<b>Known or predicted distribution to environmental compartments</b>	
Water	No data available.

### 13. Disposal considerations

<b>Disposal instructions:</b>	Discharge, treatment, or disposal may be subject to national, state, or local laws.
<b>Contaminated Packaging:</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

<b>DOT</b>	
UN Number:	UN 1791
UN Proper Shipping Name:	Hypochlorite solutions
Transport Hazard Class(es)	
Class:	8
Label(s):	8
Packing Group:	III
Marine Pollutant:	Marine Pollutant

Special precautions for user: -

**IMDG**

UN Number: UN 1791  
UN Proper Shipping Name: HYPOCHLORITE SOLUTION  
Transport Hazard Class(es)  
Class: 8  
Label(s): 8  
EmS No.: F-A, S-B  
Packing Group: III  
Marine Pollutant: Not regulated.  
Special precautions for user: -

**15. Regulatory information**

**US Federal RegulationsUS. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Sodium hypochlorite Reportable quantity: 100 lbs.

Sodium hydroxide Reportable quantity: 1000 lbs.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

☒ Acute (Immediate) ☐ Chronic (Delayed) ☐ Fire ☐ Reactive ☐ Pressure Generating

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

Chemical Identity	RQ
Sodium hypochlorite	100 lbs.
Sodium hydroxide	1000 lbs.

**SARA 311/312 Hazardous Chemical**

Chemical Identity	Threshold Planning Quantity
Sodium hypochlorite	10,000 lbs
Sodium hydroxide	10,000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

Sodium hypochlorite Reportable quantity: 100 lbs.

Sodium hydroxide Reportable quantity: 1000 lbs.

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

None present or none present in regulated quantities.

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#### US State Regulations

##### US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

##### US. New Jersey Worker and Community Right-to-Know Act

Sodium hypochlorite      Listed

Sodium hydroxide      Listed

##### US. Massachusetts RTK - Substance List

Sodium hypochlorite      Listed

Sodium hydroxide      Listed

##### US. Pennsylvania RTK - Hazardous Substances

Sodium hypochlorite      Listed

Sodium hydroxide      Listed

##### US. Rhode Island RTK

Sodium hypochlorite      Listed

Sodium hydroxide      Listed

Inventory Status:	Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory	
EU EINECS List:	On or in compliance with the inventory	
EU ELINCS List:	On or in compliance with the inventory	
Japan (ENCS) List:	On or in compliance with the inventory	
EU No Longer Polymers List:	Not in compliance with the inventory.	
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	
Canada NDSL Inventory:	Not in compliance with the inventory.	
Philippines PICCS:	On or in compliance with the inventory	
New Zealand Inventory of Chemicals:	On or in compliance with the inventory	
Japan ISHL Listing:	Not in compliance with the inventory.	
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.	
US TSCA Inventory:	On or in compliance with the inventory	

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

Health	3
Flammability	0
Physical Hazards	1
<b>PERSONAL PROTECTION</b>	<b>B</b>

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 03/15/2017  
Revision Date: No data available.  
Version #: 1.0  
Further Information: No data available.



## Univar USA Inc Safety Data Sheet

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For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

### Notice

Univar USA Inc. ("Univar") expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Univar sales office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process



## Univar USA Inc Safety Data Sheet

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3075 Highland Pkwy, Ste 200, Downers Grove, IL 60515  
(425) 889 3400

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### Emergency Assistance

For emergency assistance involving chemicals call  
Chemtrec - (800) 424-9300



Univar  
3075 Highland Pkwy STE 200  
Downers Grove, IL 60515  
425-889-3400

## SAFETY DATA SHEET

### 1. Identification

**Product identifier:** - CAUSTIC SODA 50%

**Other means of identification**

<b>Synonyms:</b>	Sodium Hydroxide
<b>CAS NUMBERS:</b>	1310-73-2
<b>SDS number:</b>	000100000088

**Recommended use and restriction on use**

**Recommended use:** Reserved for industrial and professional use.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Univar

3075 Highland Pkwy STE 200

Downers Grove, IL 60515

425-889-3400

**Emergency telephone number:** For emergency assistance involving chemicals

call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887

### 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Acute toxicity (Oral)	Category 4
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Skin Corrosion/Irritation	Category 1A
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Serious Eye Damage/Eye Irritation	Category 1
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Environmental Hazards Acute hazards to the aquatic environment	Category 3
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**Label Elements**

**Hazard Symbol**





**Signal Word**

Danger

**Hazard Statement**

Corrosive.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.

**Precautionary Statements**

**Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product.

**Response**

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. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

**Storage**

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

**Disposal**

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification**

None.

**3. Composition/information on ingredients****Substances**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium hydroxide		1310-73-2	>=48 - <=52%
Water		7732-18-5	>=48 - <=52%
Sodium Chloride		7647-14-5	>=0 - <=5%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition Comments:**

The components are not hazardous or are below required disclosure limits.

**4. First-aid measures****General information:**

CAUTION! First aid personnel must be aware of own risk during rescue!

**Ingestion:**

Do NOT induce vomiting. Never give liquid to an unconscious person. Get medical attention immediately.

**Inhalation:**

Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. Get medical attention immediately.

**Skin Contact:**

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye contact:**

If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**Most important symptoms/effects, acute and delayed****Symptoms:**

No data available.

**Indication of immediate medical attention and special treatment needed****Treatment:**

No data available.

## 5. Fire-fighting measures

**General Fire Hazards:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use: Powder. In case of fire in the surroundings: all extinguishing agents allowed.

**Unsuitable extinguishing media:** Avoid water in straight hose stream; will scatter and spread fire.

**Specific hazards arising from the chemical:** Fire or excessive heat may produce hazardous decomposition products. Heat may cause the containers to explode.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Avoid breathing fire vapors. Avoid water in straight hose stream; will scatter and spread fire. Move container from fire area if it can be done without risk.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:** Do not touch or walk through spilled material. Absorb spillage with non-combustible, absorbent material. Dike for later disposal.

## 7. Handling and storage

**Precautions for safe handling:** Use personal protective equipment as required. Use only with adequate ventilation. Container must be kept tightly closed.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in appropriate chemical storage area. Keep in a cool, well-ventilated place. Store in corrosive resistant container with a resistant inner liner.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Sodium hydroxide	Ceiling	2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Sodium hydroxide - Particulate.	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
Sodium hydroxide	Ceiling	2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (03 2016)
	Ceil_Time	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

#### Appropriate Engineering Controls

Adequate ventilation should be provided so that exposure limits are not exceeded. Eye washes and showers for emergency use.

#### Individual protection measures, such as personal protective equipment

##### General information:

Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Practice good housekeeping.

##### Eye/face protection:

Use personal protective equipment as required. Wear goggles/face shield.

##### Skin Protection

##### Hand Protection:

Chemical resistant gloves.

##### Other:

Chemical resistant clothing

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator.  
**Hygiene measures:** When using do not eat, drink or smoke. Wash thoroughly after handling. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## 9. Physical and chemical properties

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	14
<b>Melting point/freezing point:</b>	12 °C 54 °F
<b>Initial boiling point and boiling range:</b>	105 - 140 °C
<b>Flash Point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	1.333 hPa
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	1.5258
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.

**Viscosity:** No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	This product may generate hydrogen gas. Keep away from ignition source. Empty container after use should be stored in separate area, and be disposed after degassing completely.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatible Materials:</b>	Avoid contact with acids and oxidizing substances.
<b>Hazardous Decomposition Products:</b>	This product may generate hydrogen gas. Keep away from ignition source. Empty container after use should be stored in separate area, and be disposed after degassing completely.

## 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

**Product:** ATEmix ( ): 3,000 mg/kg

##### Dermal

**Product:**

Not classified for acute toxicity based on available data.

##### Inhalation

**Product:** No data available.

### Specified substance(s):

Sodium Chloride

LC50 (Rat, ): > 42 mg/l 2 = reliable with restrictions LC50 (Rat, 1 h): > 42 mg/l 2 = reliable with restrictions

### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation

**Product:** Causes skin burns.

### Serious Eye Damage/Eye Irritation

**Product:** Causes serious eye damage. Causes severe eye burns.

#### **Respiratory or Skin Sensitization**

**Product:** No data available.

#### **Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

#### **Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

#### **Reproductive toxicity**

**Product:** No data available.

#### **Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

#### **Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

#### **Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

## **12. Ecological information**

#### **Ecotoxicity:**

##### **Acute hazards to the aquatic environment:**

###### **Fish**

**Product:** LC50 (Bluegill Sunfish, 48 h): 1,294.6 mg/l

###### **Aquatic Invertebrates**

**Product:** No data available.

###### **Specified substance(s):**

Sodium hydroxide

EC50 (Water flea (*Ceriodaphnia dubia*), 48 h): 34.59 - 47.13 mg/l

Intoxication LC50 (Cockle (*Cerastoderma edule*), 48 h): 330 - 1,000 mg/l

Mortality LC50 (Common shrimp, sand shrimp (*Crangon crangon*), 48 h): 33 - 100 mg/l Mortality

Sodium Chloride LC50 (Tubificid worm, Oligochaete (*Limnodrilus hoffmeisteri*), 261 h): 5,800 mg/l Mortality LC50 (Water flea (*Ceriodaphnia dubia*), 7 d): < 330 mg/l Mortality LC50 (Pond snail, pulmonate snail (*Physa heterostroph*a), 24 h): > 5,600 mg/l Mortality EC50 (Tubificid worm (*Tubifex tubifex*), 24 h): 1,250 mg/l Intoxication LC50 (Pond snail, pulmonate snail (*Physa heterostroph*a), 96 h): 4,100 mg/l Mortality

**Chronic hazards to the aquatic environment:**

**Fish**

Product: No data available.

**Aquatic Invertebrates**

Product: No data available.

**Toxicity to Aquatic Plants**

Product: No data available.

**Persistence and Degradability**

**Biodegradation**

Product: No data available.

**BOD/COD Ratio**

Product: No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

Product: No data available.

**Partition Coefficient n-octanol / water (log K<sub>ow</sub>)**

Product: No data available.

**Mobility in Soil:** No data available.

**Known or predicted distribution to environmental compartments**

Sodium hydroxide No data available.

Water No data available.

Sodium Chloride No data available.

**Known or predicted distribution to environmental compartments**

Sodium hydroxide No data available.

Sodium Chloride No data available.

### 13. Disposal considerations

**General information:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings



even after container is emptied.

#### 14. Transport information

##### DOT

UN Number:	UN 1824
UN Proper Shipping Name:	Sodium hydroxide solution
Transport Hazard Class(es)	
Class:	8
Label(s):	8
Packing Group:	II
Marine Pollutant:	Not regulated.
Special precautions for user:	—

##### IMDG

UN Number:	UN 1824
UN Proper Shipping Name:	SODIUM HYDROXIDE SOLUTION
Transport Hazard Class(es)	
Class:	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	II
Marine Pollutant:	Not regulated.
Special precautions for user:	—

##### IATA

UN Number:	UN 1824
Proper Shipping Name:	Sodium hydroxide solution
Transport Hazard Class(es):	
Class:	8
Label(s):	8
Packing Group:	II
Environmental Hazards	Not regulated.
Special precautions for user:	—
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

#### 15. Regulatory information

**US Federal RegulationsUS. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Sodium hydroxide Reportable quantity: 1000 lbs.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

☐ Acute (Immediate) ☐ Chronic (Delayed) ☐ Fire ☐ Reactive ☐ Pressure Generating

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

Chemical Identity	RQ
Sodium hydroxide	1000 lbs.

**SARA 311/312 Hazardous Chemical**

Chemical Identity	Threshold Planning Quantity
Sodium hydroxide	500 lbs
Water	500 lbs
Sodium Chloride	500 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

Sodium hydroxide Reportable quantity: 1000 lbs.

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

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

Sodium hydroxide Listed

**US. Massachusetts RTK - Substance List**

Sodium hydroxide Listed

**US. Pennsylvania RTK - Hazardous Substances**

Sodium hydroxide Listed

**US. Rhode Island RTK**

Sodium hydroxide Listed

<b>Inventory Status:</b> EINECS, ELINCS or NLP:	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
Ontario Inventory:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**



Health	*	3
Flammability		0
Physical Hazards		1
<b>PERSONAL PROTECTION</b>		<b>B</b>

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Issue Date:** 06/06/2017  
**Revision Date:** No data available.  
**Version #:** 1.0  
**Further Information:** No data available.



## Univar USA Inc Safety Data Sheet

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For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

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This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® BT-3811

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 : 07/09/2014

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Skin corrosion : Category 1A

Serious eye damage/eye irritation : Category 1

### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.  
**Storage:**  
Store locked up. Protect product from freezing.  
**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 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. 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.

**See toxicological information (Section 11)**

### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

## SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not 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 labeled containers.
- 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

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m <sup>3</sup>	ACGIH
		Ceiling	2 mg/m <sup>3</sup>	NIOSH REL
		TWA	2 mg/m <sup>3</sup>	OSHA Z1

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

- Eye protection : Safety goggles  
Face-shield
- Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective



gloves, safety goggles and protective clothing

- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Liquid
- Colour : Light yellow
- Odour : None
- Flash point : > 93.3 °C  
Method: ASTM D 93, Pensky-Martens closed cup
- pH : 12.0 - 12.1, 1.0 %  
Method: ASTM E 70
- 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) : 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 : 1.1 (25 °C) ASTM D-1298
- Density : 8.9 - 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 : Carbon oxides
- Viscosity, dynamic : < 4 mPa.s (25 °C)  
Method: ASTM D 2983
- Viscosity, kinematic : no data available
- VOC : no data available

## **SECTION 10. STABILITY AND REACTIVITY**

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.
Hazardous decomposition products	: Oxides of carbon Oxides of phosphorus Oxides of sulfur

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

**Potential Health Effects**

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

**Experience with human exposure**

Eye contact	: Redness, Pain, Corrosion
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	: Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin	: no data available

sensitization

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

## **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

Environmental Effects : This product has no known ecotoxicological effects.

### **Product**

Toxicity to fish : LC50 Rainbow Trout: 750 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 Fathead Minnow: 4,171 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : EC50 Daphnia magna: 3,536 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : no data available

### **Persistence and degradability**

no data available

### **Mobility**

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 10 - 30%  
Soil : 70 - 90%

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

**Bioaccumulative potential**

no data available

**Other information**

no data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

**Land transport (DOT)**

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 28,700 lbs  
RQ Component : SODIUM HYDROXIDE

**Air transport (IATA)**

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 28,700 lbs  
RQ Component : SODIUM HYDROXIDE

**Sea Transport (IMDG/IMO)**

Proper shipping name : SODIUM HYDROXIDE SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1824  
Transport hazard class(es) : 8  
Packing group : III

**SECTION 15. REGULATORY INFORMATION****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	28777

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**INTERNATIONAL CHEMICAL CONTROL LAWS :****TOXIC SUBSTANCES CONTROL ACT (TSCA)**

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

**AUSTRALIA**

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

**EUROPE**

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

**JAPAN**

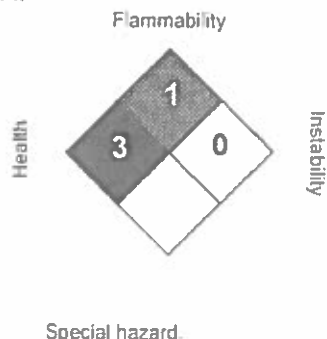
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

**KOREA**

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

**PHILIPPINES**

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

**SECTION 16. OTHER INFORMATION**
**NFPA:**

**HMIS III:**

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 07/09/2014  
Version Number : 1.0  
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 MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

3D TRASAR™ 3DT184

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT184

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Champion Company  
7705 Highway 90-A  
Sugar Land, Texas 77478  
USA  
TEL: (281) 263-7000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/04/2016

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Inhalation) : Category 4  
Skin corrosion : Category 1B  
Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Harmful if inhaled.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin 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. 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

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

**INHALED:** Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wash contaminated clothing before reuse.

**Storage:**  
Store locked up.

**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.

**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 : Use personal protective equipment.  
for firefighters

Specific extinguishing : Fire residues and contaminated fire extinguishing water must be disposed of in  
methods accordance with local regulations. In the event of fire and/or explosion do not  
breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Ensure adequate ventilation. Keep people away from and upwind of spill/leak.  
protective equipment and : Avoid inhalation, ingestion and contact with skin and eyes. When workers are  
emergency procedures facing concentrations above the exposure limit they must use appropriate  
certified respirators. Ensure clean-up is conducted by trained personnel only.  
Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for : Stop leak if safe to do so. Contain spillage, and then collect with non-  
containment and cleaning up 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 labeled containers.

Suitable material : The following compatibility data is suggested based on similar product data  
and/or industry experience: Compatibility with Plastic Materials can vary; we  
therefore recommend that compatibility is tested prior to use.

Unsuitable material : The following compatibility data is suggested based on similar product data  
and/or industry experience: Stainless Steel 304

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m <sup>3</sup>	ACGIH
		STEL	3 mg/m <sup>3</sup>	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		STEL	3 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 mg/m <sup>3</sup>	OSHA Z1

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

#### 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) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 56 mm Hg (38 °C)

Relative vapour density : no data available

Relative density : 1.24 (15.6 °C)

Density : 1.24 g/cm<sup>3</sup>  
10.4 lb/gal

Water solubility : completely soluble

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 3 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 % Calculation method

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Bases
Hazardous decomposition products	: Decomposition products may include the following materials: 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	: 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, Corrosion
Ingestion	: Corrosion, Abdominal pain

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Inhalation : Respiratory irritation, Cough

#### Toxicity

##### Product

Acute oral toxicity : no data available

Acute inhalation toxicity : Acute toxicity estimate : 2.61 mg/l  
Exposure time: 4 h

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 oral toxicity : Phosphoric Acid  
LD50 rat > 2,600 mg/kg

#### 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

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

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 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
<b>Components</b>	
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.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

Total Organic Carbon (TOC) : 1,000 mg/l

Chemical Oxygen Demand (COD): 3,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

5 d

Value

2,460 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 could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

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### 3D TRASAR™ 3DT184

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.

Proper shipping name : PHOSPHORIC ACID SOLUTION  
Technical name(s) :  
UN/ID No. : UN 1805  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 13,543 lbs  
RQ Component : Phosphoric Acid

#### Air transport (IATA)

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.

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

#### 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	13543

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Acute Health Hazard

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT184

- SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

##### NEW ZEALAND

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

##### PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

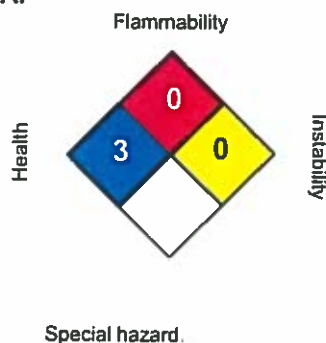
#### Section: 16. OTHER INFORMATION



## SAFETY DATA SHEET

**3D TRASAR™ 3DT184**

### NFPA:



### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 02/04/2016  
Version Number : 1.3  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 3D TRASAR® 3DT192

Other means of identification : Not applicable.

Recommended use : COOLING WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/18/2015

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.  
**Response:**  
Specific measures: consult SDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

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

Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sulfuric Acid	7664-93-9	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.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Sulphur oxides
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: No special environmental precautions required.
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions for safe storage	: Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sulfuric Acid	7664-93-9	TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		TWA	1 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

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : yellow

Odour : odourless

Flash point : > 93.3 °C

pH : 2.01 - 4, 100 %  
(25 °C)

Odour Threshold : no data available

Melting point/freezing point : no data available

Initial boiling point and boiling range : 99.4 °C

Evaporation rate : no data available

## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 20.6 mm Hg (37.8 °C)
Relative vapour density	: no data available
Relative density	: 1.119 (25 °C)
Density	: 9.3 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 4 mPa.s (25 °C)
Viscosity, kinematic	: no data available
VOC	: 0.4 % Calculation method

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides Sulphur oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

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

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,362 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Oncorhynchus mykiss (rainbow trout): 864 mg/l  
Exposure time: 96 hrs

## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 625 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other : LC50 Ceriodaphnia dubia: 1,768 mg/l

aquatic invertebrates

Exposure time: 48 hrs

Test substance: Product

NOEC Ceriodaphnia dubia: 1,250 mg/l

Exposure time: 48 hrs

Test substance: Product

Toxicity to fish (Chronic : EC25 / IC25: 716 mg/l

toxicity)

Exposure time: 7 Days

Species: Fathead Minnow

Test substance: Similar Product

LOEC: 1,250 mg/l

Exposure time: 7 Days

Species: Fathead Minnow

Test substance: Similar Product

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC) : 64,000 mg/l

Chemical Oxygen Demand (COD): 180,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

5 d

6,210 mg/l

Product

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%

Water : 10 - 30%

Soil : 70 - 90%

The portion in water is expected to float on the surface.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

## SAFETY DATA SHEET

**3D TRASAR® 3DT192**

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

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

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric Acid	7664-93-9	1000	53648

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric Acid	7664-93-9	1000	53648

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:



## SAFETY DATA SHEET

### 3D TRASAR® 3DT192

Hydrogen Peroxide 7722-84-1

Sulfuric Acid 7664-93-9

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

##### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

##### PHILIPPINES

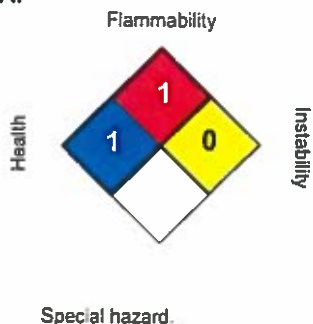
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### Section: 16. OTHER INFORMATION

## SAFETY DATA SHEET

3D TRASAR® 3DT192

### NFPA:



### HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 06/18/2015  
Version Number : 1.1  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR® 3DT265

Other means of identification : Not applicable.

Recommended use : CORROSION/SCALE INHIBITOR

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Canada ULC  
1055 Truman Street  
Burlington, Ontario L7R 3Y9  
Canada  
TEL: (905)633-1000

Emergency telephone number : (800)463-3216 (24 Hours)  
For Transportation Emergencies call CANUTEC 613-996-6666 (24 hours)

Issuing date : 2016/08/31

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Not a hazardous substance or mixture.

##### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult SDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%) (w/w)
2-Phosphono-1,2,4-Butanetricarboxylic Acid	37971-36-1	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.

If inhaled : Get medical attention if symptoms occur.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. 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.

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Buna-N, Polyurethane, Polypropylene, Polyethylene, PVC, EPDM, HDPE (high density polyethylene), Epoxy phenolic resin, Fluoroelastomer, Chlorosulfonated polyethylene rubber, 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, Stainless Steel 304

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
2-Phosphono-1,2,4-Butanetricarboxylic Acid	37971-36-1	TWA (Aerosol.)	10 mg/m3	AIHA WEEL

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

##### Human Exposure Characterization :

Based on our recommended product application and personal protective equipment, the potential human exposure is: Low

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : light brown
- Odour : odourless
- Flash point : > 100 °C, Method: ASTM D 93, Pensky-Martens closed cup
- pH : no data available
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -2.2 °C

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: similar to water
Relative vapour density	: Same as water
Relative density	: 1.13,
Density	: 9.39 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 6 mPa.s (21.6 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Bases
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

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	: Acute toxicity estimate: > 40 mg/l Exposure time: 4 h
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 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.
Reproductive effects	: no data available
Germ cell mutagenicity	: In vivo tests showed mutagenic effects
Teratogenicity	: An ingredient in this product has been shown to cause fetotoxic effects in laboratory animals. Teratogenic effects.
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

#### Human Hazard Characterization

Based on our hazard characterization, the potential human hazard is: Low

### Section: 12. ECOLOGICAL INFORMATION

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): 1,868 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Pimephales promelas* (fathead minnow): 3,140 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Oncorhynchus mykiss* (rainbow trout): 1,250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Pimephales promelas* (fathead minnow): 1,250 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 1,964 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC *Daphnia magna* (Water flea): 1,250 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : no data available

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC) : 63,000 mg/l

Chemical Oxygen Demand (COD): 190,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	< 200 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%



## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

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

#### ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

Based on our hazard characterization, the potential environmental hazard is: Low

Based on our recommended product application and the product's characteristics, the potential environmental exposure is: Moderate

### Section: 13. DISPOSAL CONSIDERATIONS

In Ontario, the waste class under Regulation 347 is: 233L

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.

#### TDG

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

## SAFETY DATA SHEET

### 3D TRASAR® 3DT265

**NPRI Components** : Phosphorus (total)

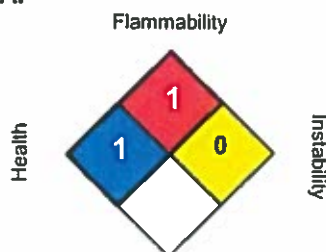
This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Section: 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

\* The human risk is: Low

\* The environmental risk is: Low

Any use inconsistent with our recommendations may affect the risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

Revision Date : 2016/08/31  
Version Number : 1.0  
Prepared By : Regulatory Affairs (905)633-1000

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT392**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT392

Other means of identification : Not applicable.

Recommended use : COOLING WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 06/15/2017

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Benzotriazolium Hydrogen Sulfate	24694-40-4	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 with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Do NOT induce vomiting. Get medical attention immediately. Never give

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

anything by mouth to an unconscious person.

Rinse mouth. Get medical attention if symptoms occur.

- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 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.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

- 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., Welded Stainless Steel 316, Stainless Steel 316 (unwelded), Unwelded Stainless Steel 304, CPVC (rigid), HDPE (high density polyethylene), Polypropylene, Teflon, PVC, Polyvinylidene difluoride, EPDM, Viton, Buna-N, Epoxy phenolic resin
- Unsuitable material : Welded Stainless Steel 304, Brass, Mild steel, Neoprene

### 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  
  
Safety glasses
- Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : clear, light yellow
- Odour : slight
- Flash point : > 93.3 °C
- pH : no data available
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -5.2 °C
- Initial boiling point and boiling range : 96.7 °C
- Evaporation rate : no data available
- Flammability (solid, gas) : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 3.99 hPa, (0 °C), 14.7 hPa, (20 °C), 38.7 hPa, (37.8 °C), 147 hPa, (65.6 °C), 253 hPa, (93.3 °C), 1,010 hPa, (113.3 °C),
Relative vapour density	: no data available
Relative density	: 1.0887, (15.6 °C),
Density	: 1.0824 - 1.0829 g/cm3
Water solubility	: Complete
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
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## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

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	: 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

#### Ecotoxicity

Environmental Effects	: This product has no known ecotoxicological effects.
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#### Product

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

Toxicity to fish	:	NOEC Pimephales promelas (fathead minnow): 3,000 mg/l
		Exposure time: 96 h
		Test substance: Product
		LC50 Oncorhynchus mykiss (rainbow trout): 1,500 mg/l
		Exposure time: 96 h
		Test substance: Product
		NOEC Oncorhynchus mykiss (rainbow trout): 750 mg/l
		Exposure time: 96 h
		Test substance: Product
		LC50 Pimephales promelas (fathead minnow): 3,680 mg/l
		Exposure time: 96 h
		Test substance: Product
Toxicity to daphnia and other aquatic invertebrates	:	NOEC Ceriodaphnia dubia: 3,000 mg/l
		Exposure time: 48 h
		Test substance: Product
		LC50 Ceriodaphnia dubia: 3,873 mg/l
		Exposure time: 48 h
		Test substance: Product
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 625 mg/l
		Exposure time: 7 d
		Species: Ceriodaphnia dubia
		Test substance: Product
		EC25 / IC25: 762 mg/l
		Exposure time: 7 d
		Species: Ceriodaphnia dubia
		Test substance: Product

#### Persistence and degradability

Total Organic Carbon (TOC) : 58,000 mg/l

Chemical Oxygen Demand (COD): 150,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	3,100 mg/l	

#### Mobility

no data available

#### Bioaccumulative potential

no data available

#### Other information



## SAFETY DATA SHEET

**3D TRASAR™ 3DT392**

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 in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

#### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Section: 15. REGULATORY INFORMATION

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

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT392

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

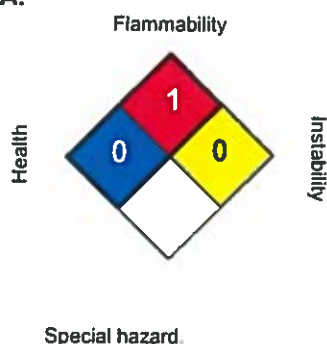
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

**This product contains substance(s) which are found on the Non-Domestic Substances List (NDSL), or are not in compliance with other Canadian Acts.**

This product contains substance(s) which are found on the Non-Domestic Substances List (NDSL), or are not in compliance with other Canadian Acts.

#### 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 : 06/15/2017  
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.

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## 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 Champion Company  
7705 Highway 90-A  
Sugar Land, Texas 77478  
USA  
TEL: (281)263-7000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 11/13/2014

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS Label element

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult MSDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

No hazardous ingredients

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

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.

## SAFETY DATA SHEET

**NALCO® 3DT396**

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### Section: 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8. Wash hands after handling.

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

## SAFETY DATA SHEET

**NALCO® 3DT396**

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : clear light yellow

Odour : Ammoniacal

Flash point : > 200 F/ > 93.3 °C

pH : 3 - 4

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -5.6 °C

Initial boiling point and boiling range : 98.9 °C

Evaporation rate : no data available

Flammability (solid, gas) : no data available

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/cm<sup>3</sup>

Water solubility : Miscible

Solubility in other solvents : no data available

## SAFETY DATA SHEET

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Partition coefficient: n-octanol/water : no data available  
Auto-ignition temperature : no data available  
Thermal decomposition temperature : no data available  
Viscosity, dynamic : no data available  
Viscosity, kinematic : no data available  
VOC : 9.6 %

### Section: 10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.  
Conditions to avoid : None known.  
Hazardous decomposition products : Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes : Health injuries are not known or expected under normal use.  
Skin : Health injuries are not known or expected under normal use.  
Ingestion : Health injuries are not known or expected under normal use.  
Inhalation : Health injuries are not known or expected under normal use.  
Chronic Exposure : Health injuries are not known or expected under normal use.

#### 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

## SAFETY DATA SHEET

**NALCO® 3DT396**

Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): > 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

#### Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Ceriodaphnia dubia*: 1,673 mg/l  
Exposure time: 48 h  
Test substance: Product

#### 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*

## SAFETY DATA SHEET

**NALCO® 3DT396**

Test substance: Product

### Persistence and degradability

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

Chemical Oxygen Demand (COD): 340,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

5 d

437 mg/l

Product

### Mobility

no data available

### Bioaccumulative potential

no data available

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

## Section: 15. REGULATORY INFORMATION



## SAFETY DATA SHEET

**NALCO® 3DT396**

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

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

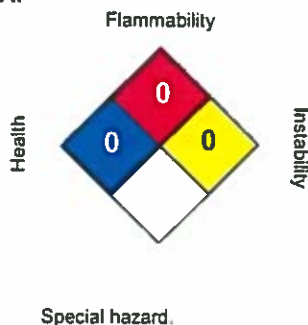
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 11/13/2014  
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**

**NALCO® 3DT396**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**3D TRASAR™ 3DT397**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT397

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 Champion  
11177 S. Stadium Drive  
Sugar Land, Texas 77478  
USA  
TEL: (281) 632-6500

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 07/26/2018

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

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 : Causes severe skin burns and eye damage.  
May cause respiratory irritation.  
Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
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™ 3DT397

**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

Chemical Name	CAS-No.	Concentration: (%)
Modified benzimidazole salt	Proprietary	10 - 30
Organic Sulfonic Acid	Proprietary	10 - 30
Acetic Acid	64-19-7	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 immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

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
		STEL	15 ppm 37 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm 25 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm 25 mg/m <sup>3</sup>	OSHA Z1

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aqueous solution

Colour : Dark brown

Odour : vinegar-like

Flash point : > 101 °C, Does not sustain combustion.

pH : < 1.5, (25 °C)

Odour Threshold : no data available

Melting point/freezing point : -5 °C

Initial boiling point and boiling range : 98.5 °C

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 : 1.08 - 1.13, (25 °C),

Density : no data available

Water solubility : Complete

Solubility in other solvents : no data available

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

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	: 2.66 mm <sup>2</sup> /s (25 °C)
Molecular weight	: no data available
VOC	: no data available

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Strong bases
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause respiratory tract irritation. 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

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

#### 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
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: No toxicity to reproduction
Germ cell mutagenicity	: Contains no ingredient listed as a mutagen
Teratogenicity	: no data available
STOT - single exposure	: Causes damage to organs if inhaled.
STOT - repeated exposure	: no data available
Aspiration toxicity	: No aspiration toxicity classification

#### Section: 12. ECOLOGICAL INFORMATION

##### **Ecotoxicity**

Environmental Effects	: This product has no known ecotoxicological effects.
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##### **Product**

Toxicity to fish	: LC50 Fathead Minnow: 502 mg/l Exposure time: 96 hrs Test substance: Product  NOEC Fathead Minnow: 360 mg/l Exposure time: 96 hrs Test substance: Product  LC50 Rainbow Trout: 480 mg/l Exposure time: 96 hrs Test substance: Product  NOEC Rainbow Trout: 360 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: Product  LC50 Ceriodaphnia dubia: 369 mg/l



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

Exposure time: 48 hrs  
Test substance: Product

NOEC Ceriodaphnia dubia: 216 mg/l  
Exposure time: 48 hrs  
Test substance: Product

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

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

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

#### Components

Toxicity to algae : Modified benzimidazole salt  
EC50 Raphidocelis subcapitata (freshwater green alga): 29.6 mg/l  
Exposure time: 96 h  
NOEC Raphidocelis subcapitata (freshwater green alga): 6.3 mg/l  
Exposure time: 96 h

Acetic Acid  
EC50 Skeletonema costatum (marine diatom): > 1,000 mg/l  
Exposure time: 72 h

#### Components

Toxicity to fish (Chronic toxicity) : Modified benzimidazole salt  
NOEC: 60 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)

#### Persistence and degradability

no data available

#### Mobility

no data available

#### Bioaccumulative potential

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

no data available

#### Other information

no data available

#### Section: 13. DISPOSAL CONSIDERATIONS

- Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or 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

##### 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

##### 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

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT397

#### 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  
Specific target organ toxicity (single or repeated exposure)  
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 :

##### United States TSCA Inventory

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

##### Australia. Industrial Chemical (Notification and Assessment) Act

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.

##### 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

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

##### Canadian Domestic Substances List (DSL)

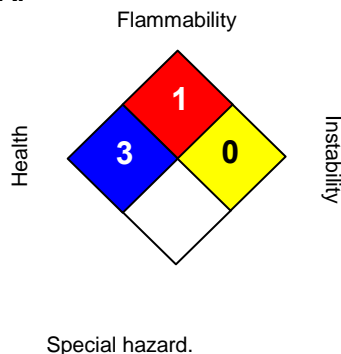
This product contains substance(s) which are not listed on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

## SAFETY DATA SHEET

**3D TRASAR™ 3DT397**

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

<b>HEALTH</b>	<b>3*</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Revision Date : 07/26/2018  
Version Number : 1.4  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : TRASAR® 22130

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 : 09/01/2015

**Section: 2. HAZARDS IDENTIFICATION****GHS Classification**

Skin sensitization : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.  
**Response:**  
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse.  
**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  
Mixture

## SAFETY DATA SHEET

### TRASAR® 22130

Chemical Name	CAS-No.	Concentration: (%)
Carbohydrazide	497-18-7	5 - 10
Morpholine	110-91-8	0.1 - 1

#### Section: 4. FIRST AID MEASURES

In case of eye contact	: Rinse with plenty of water. Get medical attention if symptoms occur.
In case of skin contact	: Wash off 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.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
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## SAFETY DATA SHEET

### TRASAR® 22130

- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Do not 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 labeled 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

- 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 : In the case of vapour formation use a respirator with an approved filter.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.  
Wash face, hands and any exposed skin thoroughly after handling.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid

## SAFETY DATA SHEET

### TRASAR® 22130

Colour	: colourless
Odour	: odourless
Flash point	: Method: Pensky-Martens closed cup does not flash
pH	: 9.1, 100 % Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: FREEZING POINT: -2.2 °C, ASTM D-1177
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 12 mm Hg (20 °C)
Relative vapour density	: no data available
Relative density	: 1.05 (25 °C) ASTM D-1298
Density	: 8.7 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 2 mPa.s (25 °C) Method: ASTM D 2983
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0.1 % Calculation method

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: At temperatures below 4 °C (40 °F), this product loses its stability and forms precipitates. Once formed, the precipitate cannot be resolubilized and loss of product activity will occur.



## SAFETY DATA SHEET

**TRASAR® 22130**

- Incompatible materials** : Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.  
Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.  
Nitrites
- Hazardous decomposition products** : Decomposition products may include the following materials:  
Carbon oxides  
nitrogen oxides (NOx)  
Sulphur oxides

### Section: 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure** : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

- Eyes** : Health injuries are not known or expected under normal use.
- Skin** : May cause allergic skin reaction.
- 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** : Redness, Irritation, Allergic reactions
- Ingestion** : No symptoms known or expected.
- Inhalation** : No symptoms known or expected.

#### Toxicity

##### Product

- Acute oral toxicity** : LD50 rat > 5,000 mg/kg  
Test substance Similar Product
- Acute inhalation toxicity** : no data available
- Acute dermal toxicity** : LD50 rat: > 2,000 mg/kg  
Test substance: Similar Product

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### TRASAR® 22130

Skin corrosion/irritation : Species: Rabbit  
Result: 0.2  
Method: Draize Test  
Test substance: Similar Product

Serious eye damage/eye irritation : Species: rabbit  
Result: 0.3  
Method: Draize Test  
Test substance: Similar Product

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : Harmful to aquatic life.

#### Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 360 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Lepomis macrochirus (Bluegill sunfish): 190 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 Pimephales promelas (fathead minnow): 400 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 96 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

#### Components

Toxicity to algae : Carbohydrazide

## SAFETY DATA SHEET

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EC50 : 1.5 mg/l  
Exposure time: 72 h

Morpholine  
EC50 : 28 mg/l  
Exposure time: 96 h

### Components

Toxicity to bacteria : Carbohydrazide  
230 mg/l

### Components

Toxicity to daphnia and other : Carbohydrazide  
aquatic invertebrates NOEC: 0.98 mg/l  
(Chronic toxicity) Exposure time: 7 d

### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

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 : The product should not be allowed to enter drains, water courses or the soil. 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.

## SAFETY DATA SHEET

### TRASAR® 22130

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

The presence of an RQ component (Reportable Quantity for U.S. 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.

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
Technical name(s) : HYDRAZINE  
UN/ID No. : UN 3082  
Transport hazard class(es) : 9  
Packing group : III  
Reportable Quantity (per package) : 30,303 lbs  
RQ Component : HYDRAZINE

##### Air transport (IATA)

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.

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
Technical name(s) : HYDRAZINE  
UN/ID No. : UN 3082  
Transport hazard class(es) : 9  
Packing group : III  
Reportable Quantity (per package) : 30,303 lbs  
RQ Component : HYDRAZINE

##### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

#### Section: 15. REGULATORY INFORMATION

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

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
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## SAFETY DATA SHEET

**TRASAR® 22130**

Hydrazine	302-01-2	1	30303
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### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrazine	302-01-2	1	30303

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

#### NEW ZEALAND

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

#### PHILIPPINES

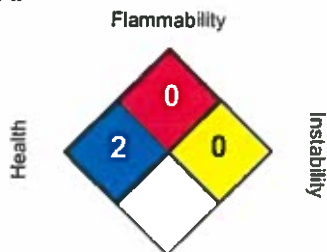
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

## SAFETY DATA SHEET

**TRASAR® 22130**

### 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 : 09/01/2015  
Version Number : 1.1  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

#### 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 : 01/13/2016

#### Section: 2. HAZARDS IDENTIFICATION

##### GHS Classification

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1

Eye irritation : Category 1

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.  
Causes damage to organs (Blood) if swallowed.

Precautionary Statements : **Prevention:**  
Keep/Store away from clothing and other combustible materials. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/

## SAFETY DATA SHEET

### TRASAR™ TRAC101

physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: 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: (%)
Sodium Nitrite	7632-00-0	10 - 30
Sodium Molybdate	7631-95-0	5 - 10
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. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) metal oxides



## SAFETY DATA SHEET

### TRASAR™ TRAC101

Special protective equipment : Use personal protective equipment.  
for firefighters

Specific extinguishing : Fire residues and contaminated fire extinguishing water must be disposed of in  
methods accordance with local regulations. In the event of fire and/or explosion do not  
breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Ensure adequate ventilation. Keep people away from and upwind of spill/leak.  
protective equipment and : Avoid inhalation, ingestion and contact with skin and eyes. When workers are  
emergency procedures facing concentrations above the exposure limit they must use appropriate  
certified respirators. Ensure clean-up is conducted by trained personnel only.  
Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for : Stop leak if safe to do so. Contain spillage, and then collect with non-  
containment and cleaning up 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 labeled containers.

Suitable material : The following compatibility data is suggested based on similar product data  
and/or industry experience: Compatibility with Plastic Materials can vary; we  
therefore recommend that compatibility is tested prior to use.

Unsuitable material : not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Molybdate	7631-95-0	TWA (Total dust)	15 mg/m3	OSHA Z1
		TWA (Inhalable fraction)	10 mg/m3	ACGIH
		TWA	3 mg/m3	ACGIH

## SAFETY DATA SHEET

### TRASAR™ TRAC101

		(Respirable fraction)		
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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 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.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid  
Colour : light yellow  
Odour : odourless  
Flash point : does not flash  
pH : 13  
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) : 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 : 1.25 - 1.29 (15.6 °C)  
Density : 10.42 - 10.76 lb/gal  
Water solubility : completely soluble

## SAFETY DATA SHEET

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Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
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 reducing agents (e.g. hydrazine, sulfites, sulfide, aluminum or magnesium dust) may generate heat, fires, explosions and toxic vapors. Do not mix with amines. Sodium nitrite can react with certain amines to produce N-nitrosamines, many of which are cancer-causing agents to laboratory animals.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) metal oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
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#### 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	: May cause damage to organs.

#### Experience with human exposure

## SAFETY DATA SHEET

### TRASAR™ TRAC101

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 717.93 mg/kg  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

#### Components

Acute inhalation toxicity : Sodium Molybdate  
LC50 rat: > 5.10 mg/l  
Exposure time: 4 h

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

## SAFETY DATA SHEET

### TRASAR™ TRAC101

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  
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

#### Persistence and degradability

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  
5 d

Value  
340 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%

## SAFETY DATA SHEET

### TRASAR™ TRAC101

Water : 30 - 50%  
Soil : 50 - 70%

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

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

The presence of an RQ component (Reportable Quantity for U.S. 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.

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : Sodium Nitrite  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 407 lbs  
RQ Component : SODIUM NITRITE

#### Air transport (IATA)

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.

## SAFETY DATA SHEET

### TRASAR™ TRAC101

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : Sodium Nitrite  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 407 lbs  
RQ Component : SODIUM NITRITE

#### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : Sodium Nitrite  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

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

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Nitrite	7632-00-0	100	407

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : Acute Health Hazard  
Fire Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
Sodium Nitrite 7632-00-0 10 - 30 %

#### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D):

The following components are listed: Sodium Nitrite

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

## SAFETY DATA SHEET

### TRASAR™ TRAC101

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

#### NEW ZEALAND

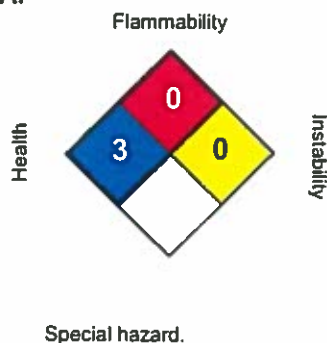
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 01/13/2016  
Version Number : 1.4  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.



## **SAFETY DATA SHEET**

### **TRASAR™ TRAC101**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

H-550

**CALGON**  
CORPORATIONP.O. Box 1346  
Pittsburgh, PA 15230-1346  
Phone--(412)494-8000  
CHEMTREC® 1-800-424-9300**MATERIAL SAFETY DATA SHEET****Section 1. PRODUCT IDENTIFICATION**

PRODUCT NAME: H-550

CHEMICAL DESCRIPTION: Glutaraldehyde, 50% aqueous solution  
PRODUCT CLASS: Biocide  
MSDS CODE: 0B85-01-29-90**Section 2. INFORMATION ON INGREDIENTS**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Glutaraldehyde	111-30-8	50	None established	Ceiling 0.2 ppm, 0.82 mg/m <sup>3</sup>

**Section 3. HAZARDS IDENTIFICATION**

## \*\*\*\*\* EMERGENCY OVERVIEW \*\*\*\*\*

Clear, colorless liquid with sharp odor.

**DANGER!**

May cause severe eye and skin damage.

Harmful if inhaled.

May be fatal if swallowed.

Harmful if absorbed through skin.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Causes asthmatic signs and symptoms in hyper-reactive individuals.

\*\*\*\*\*

PRIMARY ROUTES OF ENTRY: Eye and skin contact, inhalation, skin absorption, ingestion

TARGET ORGANS: Eye, skin, mucous membranes

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin contact may aggravate an existing dermatitis.  
Inhalation of material may aggravate asthma and inflammatory or fibrotic pulmonary disease.MSDS Code: 0B85-01-29-90  
Issue Date: 10/06/97Page 1  
Continued on Page 225229  
Haw

**H-550****POTENTIAL HEALTH EFFECTS:**

**EYE CONTACT:** Liquid will cause a severe and persistent conjunctivitis, seen as excess redness and marked swelling of the conjunctiva with profuse discharge. Severe corneal injury may develop, which could permanently impair vision if prompt first-aid and medical treatment are not obtained. Vapor will cause stinging sensations in the eye with excess tear production, blinking, and possibly a slight excess redness of the conjunctiva.

**SKIN CONTACT:** Brief contact with the product will cause itching with mild to moderate local redness and possibly swelling. Prolonged contact may result in pain, severe redness and swelling, with ulceration, tissue destruction, and possibly bleeding into the inflamed area. Glutaraldehyde may be absorbed through intact skin. Therefore, prolonged or widespread contact with the product may result in the absorption of potentially harmful amounts of material and may affect the central nervous system producing headache, dizziness, and dulness. This product may cause allergic contact dermatitis in a small portion of individuals. Sensitization reactions usually result from contact with the liquid, but occasionally there may be a reaction to glutaraldehyde vapor.

**INGESTION:** Swallowing this product may cause moderate to marked irritation and possibly chemical burns of the mouth, throat, esophagus, and stomach, with discomfort or pain in the mouth, throat, chest, and abdomen, nausea, vomiting, diarrhea, dizziness, faintness, drowsiness, weakness, thirst, circulatory shock, collapse, and coma.

**INHALATION:** Product vapor is irritating to the respiratory tract, causing stinging sensations in the nose and throat, discharge from the nose, possibly bleeding from the nose, coughing, chest discomfort and tightness, difficulty with breathing, and headache. Severe exposure may cause central nervous system depression with dizziness and drowsiness. The odor threshold of glutaraldehyde is 0.04 ppm whereas the irritation threshold is 0.3 ppm. If vapors are concentrated enough to be irritating, the TLV is probably being exceeded. Inhalation of product can cause signs and symptoms of an asthmatic attack in hyper-reactive individuals.

**SUBCHRONIC, CHRONIC:**

Repeated skin contact may cause a cumulative dermatitis.

**CARCINOGENICITY:**

NTP:

"No ingredients listed in this section"

IARC:

"No ingredients listed in this section"

OSHA:

"No ingredients listed in this section"

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**Section 4. FIRST AID MEASURES**

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**EYE CONTACT:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Do not remove contact lenses, if worn. Seek medical aid immediately.

**SKIN CONTACT:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical aid immediately. Wash clothing before reuse.

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**INGESTION: DO NOT INDUCE VOMITING.** Do not give anything to drink. Seek medical advice with urgency. Note to Physician: Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

**INHALATION:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical aid.

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**Section 5. FIRE-FIGHTING MEASURES**

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**FLASH POINT:** None  
Non-flammable (aqueous solution): After water evaporates, remaining material will burn.

**LOWER FLAMMABLE LIMIT:** Not determined      **UPPER FLAMMABLE LIMIT:** Not determined

**AUTO-IGNITION TEMPERATURE:** Not available

**EXTINGUISHING MEDIA:** Use alcohol-type or all-purpose-type foam, applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

**FIRE-FIGHTING INSTRUCTIONS:** Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential.

**FIRE & EXPLOSION HAZARDS:** No unusual hazards.

**DECOMPOSITION PRODUCTS:** Thermal decomposition or combustion may produce carbon dioxide and carbon monoxide.

**NFPA RATINGS:** Health = 3      Flammability = 0      Reactivity = 0      Special Hazard = None

Hazard rating scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

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**Section 6. ACCIDENTAL RELEASE MEASURES**

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**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Wear suitable protective equipment. Toxic to fish; avoid discharge to natural waters. Very low concentrations (5 ppm or less of glutaraldehyde) can be degraded in a biological treatment system. Thus, small spills can be flushed with large quantities of water. Large quantities or "slugs" can be harmful to the treatment system. Thus, large spills should be collected for disposal. It may also be possible to decontaminate spilled material by careful application of aqueous sodium hydroxide or dibasic ammonium phosphate solution. Depending on conditions, considerable heat and fumes can be liberated by the decontamination reaction.

**H-550**

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**Section 7. HANDLING AND STORAGE**

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**HANDLING:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Do not get in eyes, on skin or clothing.  
Avoid breathing vapor.  
Use with adequate ventilation.  
Wash thoroughly after handling. Keep container closed when not in use.  
Remove contaminated clothing and wash before reuse.  
Discard contaminated leather articles such as shoes and belt.

**STORAGE:** Glutaraldehyde solutions can be stored and handled in polyethylene, stainless steel, or reinforced epoxy-plastic equipment. For short storage times (up to about 1 month), temperatures of up to 100°F (38 °C) can be tolerated but the preferred maximum storage temperature is about 80°F (27 °C).

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**Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**PERSONAL PROTECTIVE EQUIPMENT:**

**EYE/FACE PROTECTION:** Chemical splash goggles and face shield

**SKIN PROTECTION:** Chemical resistant gloves and protective clothing

(Recommended glove materials include rubber, nitrile (NBR), butyl, and polyethylene.)

**RESPIRATORY PROTECTION:** If airborne concentrations exceed published exposure limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

**ENGINEERING CONTROLS:** General (mechanical) room ventilation is expected to be satisfactory if this material is kept in covered equipment or if the solution is highly diluted. However, if vapors are strong enough to irritate the nose or eyes, the exposure limits are probably being exceeded and special ventilation may be required.

**WORK PRACTICES:** Eye wash station and safety shower should be accessible in the immediate area of use.

**SATISFACTORY MATERIALS OF CONSTRUCTION:** Stainless steel types 304 and 316, Nickel, Polyethylene, and Fiberglass-reinforced plastics: Polyester (e.g., Atiac 382) and Vinylster (e.g., Derakane 411 or 470).  
Recommended gasket materials: Silicone, Teflon, Kalrez, or Grafoil.

**UNSATISFACTORY MATERIALS OF CONSTRUCTION:** Glutaraldehyde solutions are incompatible with many commonly used materials of construction such as carbon steel, iron, aluminum, tin, zinc, copper and monel. Lined steel containers are not recommended for bulk storage, since pinholes could cause product contamination. Rubber linings are also unsuitable because of swelling. Do not use Viton.

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**Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**BOILING POINT:** 214.2°F (101.2°C) @ 760 mmHg

**SOLUBILITY IN WATER:** Complete

**VAPOR PRESSURE:** 15.0 mmHg @ 20°C

**SPECIFIC GRAVITY:** 1.127 - 1.133 @ 20/20°C

**H-550**

VAPOR DENSITY (air=1): 1.05

pH: 3.1 - 4.5 @ 25°C

%VOLATILE BY WEIGHT: Not available

FREEZING POINT: -6°F (-21°C)

APPEARANCE AND ODOR: Clear, colorless liquid with sharp odor.

VISCOSITY: 21 cps @ 20°C

**Section 10. STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Avoid high temperature and evaporation of water. Although polymerization may occur, it is not hazardous.

INCOMPATIBILITY: Alkalies catalyze an aldol-type condensation reaction, which is exothermic but not expected to be violent.

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce carbon dioxide and carbon monoxide.

**Section 11. TOXICOLOGICAL INFORMATION****ON PRODUCT:**

**Toxicological data on inhalation effects:** An NTP Inhalation study indicated that glutaraldehyde exposure in rats and mice resulted in a spectrum of necrotic, inflammatory, and regenerative lesions in the upper respiratory tract. The no-observed-adverse-effect level for respiratory lesions in rats was 125 parts per billion. The study, however, did not detect any no-observed-adverse-effect level for mice. Inflammation was found in the frontal nasal passage of the mouse at concentrations as low as 62.5 ppb.

**Toxicological data on chronic effects:** Studies in humans have shown that glutaraldehyde is neither phototoxic nor a photosensitizer. Subchronic drinking water studies in rats, mice and dogs using concentrations up to 1000 ppm showed no evidence for any target organ toxicity. In vitro studies for genotoxicity using a variety of assays have given results varying from no activity to weakly positive; however, all in vivo studies for genotoxicity have been uniformly negative. Several developmental toxicity studies have demonstrated that at maternally nontoxic doses, glutaraldehyde does not produce fetotoxic, embryotoxic or teratogenic effects. In a chronic (2-year) continuous drinking water combined chronic toxicity-oncogenicity study using Fischer 344 rats, there was no evidence for non-oncogenic target organ toxicity. The only possible oncogenicity-related finding was an increase in the incidence of large granular cell lymphocytic leukemia in female, but not male, rats. The pattern of the response suggests that it does not represent direct chemical carcinogenic activity but, rather, a modifying influence on the expression of this spontaneous and commonly occurring neoplasm in the Fischer 344 rat.

**ON INGREDIENTS:**

<u>Chemical Name</u>	Oral LD <sub>50</sub> (rat)	Dermal LD <sub>50</sub> (rabbit)	Inhalation LC <sub>50</sub> (rat)
Glutaraldehyde	134 mg/kg	2560 mg/kg (25% soln)	480 mg/m <sup>3</sup> /4H

**H-550**

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**Section 12. ECOLOGICAL INFORMATION**

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**ON PRODUCT:****Environmental data:**

This product 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.

**Modified Test for Ready Biodegradation: 79.7% DOC**

**ON INGREDIENTS:****Chemical Name**

Glutaraldehyde (50% active solution)

**Aquatic Toxicity Data**

96 hr LC<sub>50</sub> (bluegill sunfish): 22 ppm  
96 hr LC<sub>50</sub> (rainbow trout): 24 ppm  
48 hr LC<sub>50</sub> (Daphnia): 12 ppm  
96 hr LC<sub>50</sub> (fathead minnow): 12 ppm  
96 hr LC<sub>50</sub> (sheepshead minnow): 64 ppm  
96 hr LC<sub>50</sub> (mysid shrimp): 14 ppm

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**Section 13. DISPOSAL CONSIDERATIONS**

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**RCRA STATUS:** Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

**DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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**Section 14. TRANSPORT INFORMATION**

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**DOT CLASSIFICATION:**

Class/Division: 8

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (contains Glutaraldehyde)

Label: Corrosive

Packing Group: II

ID Number: UN 3265

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**Section 15. REGULATORY INFORMATION**

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**OSHA Hazard Communication Status:** Hazardous

**TSCA:** The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

H-550

CERCLA reportable quantity of EPA hazardous substances in product:

Chemical Name

RQ

No ingredients of this product have CERCLA reportable quantities.

Product RQ: Not applicable

(Notify EPA of product spills exceeding this amount.)

SARA TITLE III:

**Section 302 Extremely Hazardous Substances:**

Chemical Name

CAS #

RQ

TPQ

There are no SARA 302 Extremely Hazardous Substances in this product.

**Section 311 and 312 Health and Physical Hazards:**

Immediate  
[yes]

Delayed  
[yes]

Fire  
[no]

Pressure  
[no]

Reactivity  
[no]

**Section 313 Toxic Chemicals:**

Chemical Name

CAS #

% by Weight

There are no reportable SARA 313 Toxic Chemicals in this product.

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**Section 16. OTHER INFORMATION**

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HMIS RATINGS: Health = 3\* Flammability = 0 Reactivity = 0  
Personal Protective Equipment = X (to be specified by user depending on use conditions)

\*There are potential chronic health effects to consider.

Hazard rating scale. 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

MSDS REVISION SUMMARY: Supersedes MSDS issued on 09/25/97. The MSDS has been changed in Section 2.

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While this information and recommendations set forth herein are believed to be accurate as of the date hereof, CALGON CORPORATION MAKES NO WARRANTY WITH RESPECT HEREON AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

PREPARED BY: P.J. Maloney



**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALSPERSE™ 73551

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 : 06/17/2015

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult SDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Mixture

No hazardous ingredients

**Section: 4. FIRST AID MEASURES**

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do

## SAFETY DATA SHEET

**NALSPERSE™ 73551**

not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
- Suitable material : Keep in properly labelled containers.
- Unsuitable material : not determined

## SAFETY DATA SHEET

**NALSPERSE™ 73551**

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: colourless
Odour	: odourless
Flash point	: does not flash
pH	: 6.6 - 7.0, 100 % (25 °C)
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)	: 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	: 0.99 - 1.03 (25 °C)
Density	: no data available
Water solubility	: completely soluble

## SAFETY DATA SHEET

### NALSPERSE™ 73551

Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures. None known.
Incompatible materials	: None known
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
--	---

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: 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.

## SAFETY DATA SHEET

**NALSPERSE™ 73551**

### Toxicity

#### Product

Acute oral toxicity	: LD50 rat 2,300 - 16,000 mg/kg Test substance The following results are for the polymer.
Acute inhalation toxicity	: Acute toxicity estimate : > 40 mg/l Exposure time: 4 h
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects	: This product has no known ecotoxicological effects.
-----------------------	---

#### Product

Toxicity to fish	: LC50 Oncorhynchus mykiss (rainbow trout): > 1,000 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 Pimephales promelas (fathead minnow): 996 mg/l Exposure time: 96 hrs Test substance: Product  NOEC Oncorhynchus mykiss (rainbow trout): > 1,000 mg/l Exposure time: 96 hrs Test substance: Product
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## SAFETY DATA SHEET

**NALSPERSE™ 73551**

NOEC *Lepomis macrochirus* (Bluegill sunfish): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Ceriodaphnia dubia*: 1,320 mg/l  
Exposure time: 48 hrs  
Test substance: Product

EC50 *Daphnia magna* (Water flea): > 1,000 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 527 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: 500 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 250 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC: 250 mg/l  
Exposure time: 7 Days  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

EC50: 182 mg/l  
Exposure time: 7 Days  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

EC25 / IC25: 141 mg/l  
Exposure time: 7 Days  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

NOEC: 125 mg/l  
Exposure time: 7 Days  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

### Persistence and degradability

Total Organic Carbon (TOC) : 85,000 mg/l

Chemical Oxygen Demand (COD): 250,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

## SAFETY DATA SHEET

**NALSPERSE™ 73551**

5 d

4 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	: 30 - 50%

### Bioaccumulative potential

no data available

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods	: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
------------------	--

Disposal considerations	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
-------------------------	--

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name	: PRODUCT IS NOT REGULATED DURING TRANSPORTATION
----------------------	--

### Air transport (IATA)

Proper shipping name	: PRODUCT IS NOT REGULATED DURING TRANSPORTATION
----------------------	--

### Sea transport (IMDG/IMO)

Proper shipping name	: PRODUCT IS NOT REGULATED DURING TRANSPORTATION
----------------------	--

## SAFETY DATA SHEET

**NALSPERSE™ 73551**

### Section: 15. REGULATORY INFORMATION

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

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

##### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### KOREA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

##### PHILIPPINES

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).

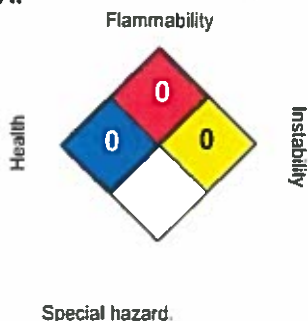


## SAFETY DATA SHEET

**NALSPERSE™ 73551**

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 06/17/2015  
Version Number : 1.1  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Towerbrom® 960

Other means of identification : Not applicable.

Recommended use : BIOCIDES

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 11/21/2014

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Oxidizing solids : Category 2

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 4

Skin irritation : Category 2

Serious eye damage/eye irritation : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May intensify fire; oxidiser.  
Harmful if swallowed, in contact with skin or if inhaled  
Causes skin irritation.  
Causes serious eye damage.

Precautionary Statements : **Prevention:**  
Keep away from heat. Keep/Store away from clothing/ combustible materials. Take any precaution to avoid mixing with combustibles. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin 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/ eye protection/ face protection.

**Response:**

## SAFETY DATA SHEET

### Towerbrom® 960

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

#### 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 Dichloroisocyanurate	2893-78-9	90
Sodium Bromide	7647-15-6	7

### 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. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.

## SAFETY DATA SHEET

### Towerbrom® 960

- Specific hazards during firefighting : Oxidizer. Contact with other material may cause fire.
- Hazardous combustion products : nitrogen oxides (NOx) May evolve chlorine under fire conditions. 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. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.

#### 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 in a cool, well-ventilated place. Keep away from reducing agents. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled 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

- Eye protection : Safety goggles  
Face-shield

## SAFETY DATA SHEET

### Towerbrom® 960

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	: 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.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Granular
Colour	: white
Odour	: Slight Pungent
Flash point	: Not applicable.
pH	: 6.0 - 7.0, 1 % (25 °C)
Odour Threshold	: no data available
Melting point/freezing point	: MELTING POINT: 240 - 250 °C, Decomposes
Initial boiling point and boiling range	: Not applicable.
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: no data available
Density	: no data available
Water solubility	: 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 temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
VOC	: 0 %

## SAFETY DATA SHEET

**Towerbrom® 960**

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Do not allow water to enter container.
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. Combustible materials Acids Reducing agents
Hazardous decomposition products	: Oxides of nitrogen (NOx), disodium oxide, bromine, and traces of phosgene (under fire conditions); chlorine (released in presence of moisture) and other chlorine containing compounds; hypobromous acid, hypochlorous acid, and cyanuric acid (released when dissolved in water); nitrogen trichloride, an explosion hazard (generated slowly by the reaction of small quantities of water with high concentration of this product).

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Harmful in contact with skin. Causes skin irritation.
Ingestion	: Harmful if swallowed.
Inhalation	: Harmful if inhaled.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: slight irritation Redness, Irritation
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : Acute toxicity estimate 1,626 mg/kg

## SAFETY DATA SHEET

### Towerbrom® 960

Acute inhalation toxicity	: LC50 rat: 15 mg/l Exposure time: 4 hrs Test substance: Product
Acute dermal toxicity	: LD50 rabbit: 1,500 mg/kg
Skin corrosion/irritation	: Result: Skin irritation
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : Very toxic to aquatic life with long lasting effects.

#### Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 0.7 mg/l  
Exposure time: 96 hrs  
Test substance: 50% Active Ingredient

LC50 Cyprinodon variegatus (sheepshead minnow): 3.42 mg/l  
Exposure time: 96 hrs

LC50 Pimephales promelas (fathead minnow): 0.4 mg/l  
Exposure time: 96 h  
Test substance: Product

LC50 Inland Silverside: 1.5 mg/l  
Exposure time: 96 h  
Test substance: Product

## SAFETY DATA SHEET

### Towerbrom® 960

LC50 *Oncorhynchus mykiss* (rainbow trout): 0.250 mg/l  
Exposure time: 96 h  
Test substance: Active Substance

LC50 *Lepomis macrochirus* (Bluegill sunfish): 0.460 mg/l  
Exposure time: 96 h  
Test substance: Active Substance

#### Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 1.35 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Mysid Shrimp (*Mysidopsis bahia*): 2.4 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Ceriodaphnia dubia*: 1.02 mg/l  
Exposure time: 48 hrs  
Test substance: Product

#### Product

Toxicity to algae : EC50 Green Algae (*Pseudokirchneriella subcapitata*, previously *Selenastrum capricornutum*): 0.3 mg/l  
Exposure time: 96 h  
Test substance: Product

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 30 - 50%

The portion in water is expected to float on the surface.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available



## SAFETY DATA SHEET

**Towerbrom® 960**

### 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: : D001, D003

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

Proper shipping name : DICHLOROISOCYANURIC ACID, SALTS, MIXTURE  
Technical name(s) : Sodium Dichloroisocyanurate  
UN/ID No. : UN 2465  
Transport hazard class(es) : 5.1  
Packing group : II

#### Air transport (IATA)

Proper shipping name : DICHLOROISOCYANURIC ACID, SALTS, MIXTURE  
Technical name(s) : Sodium Dichloroisocyanurate  
UN/ID No. : UN 2465  
Transport hazard class(es) : 5.1  
Packing group : II

#### Sea transport (IMDG/IMO)

Proper shipping name : DICHLOROISOCYANURIC ACID, SALTS, MIXTURE  
Technical name(s) : Sodium Dichloroisocyanurate  
UN/ID No. : UN 2465  
Transport hazard class(es) : 5.1  
Packing group : II

\*Marine pollutant : Sodium Dichloroisocyanurate

\*Note: This product is regulated as a Marine Pollutant when shipped by Rail, Highway (in bulk quantities), or Air (if no other hazard class applies), and when shipped by water in all quantities.

### Section: 15. REGULATORY INFORMATION

EPA Reg. No. : 935-71-1706

## SAFETY DATA SHEET

### Towerbrom® 960

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

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : Acute Health Hazard  
Fire Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

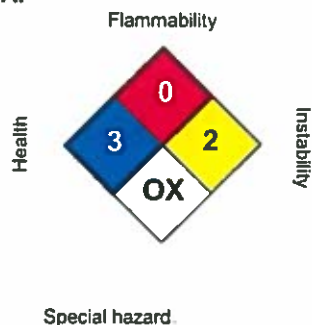
Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

#### EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

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

Revision Date : 11/21/2014  
Version Number : 1.1  
Prepared By : Regulatory Affairs

## **SAFETY DATA SHEET**

### **Towerbrom® 960**

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.



## Univar USA Inc Safety Data Sheet

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SDS No:

Version No:

Order No:

3075 Highland Pkwy, Ste 200, Downers Grove, IL 60515  
(425) 889 3400

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### Emergency Assistance

For emergency assistance involving chemicals call  
Chemtrec - (800) 424-9300

SAFETY DATA SHEET		ECOSERVICES
SULFURIC ACID 93% ELECTROLYTE		
Revision 2 US ( EN )	Issuing date 05/09/2016	

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product Identifier**

Trade name : SULFURIC ACID 93% ELECTROLYTE

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

no data available

**1.3 Details of the supplier of the safety data sheet**

Company : Eco Services Operations Corp  
2002 Timberloch Place  
Suite 300  
The Woodlands, TX 77380  
Phone number : (844) 812-1812

**1.4 Emergency telephone**

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

**SECTION 2: Hazards Identification**

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

**2.1 Classification of the substance or mixture**

HCS 2012 (29 CFR 1910.1200)

Skin corrosion, Category 1A  
Serious eye damage, Category 1  
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system

H314: Causes severe skin burns and eye damage  
H318: Causes serious eye damage  
H335: May cause respiratory irritation

**2.2 Label elements**

HCS 2012 (29 CFR 1910.1200)

Pictogram



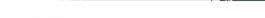
Signal Word

Danger

Hazard Statements:

H314  
H335

Causes severe skin burns and eye damage.  
May cause respiratory irritation.

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**Precautionary Statements:**

**Prevention**

P261  
P264  
P271  
P280

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**

P301 + P330 + P331  
P303 + P361 + P353

P304 + P340

P305 + P351 + P338

P310  
P363

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/ physician.  
Wash contaminated clothing before reuse.

**Storage**

P403 + P233  
P405

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

**Disposal**

P501

Dispose of contents/ container to an approved waste disposal plant

**2.3 Other hazards which do not result in classification**

**Water Reactive**

H402: Harmful to aquatic life

H411: Toxic to aquatic life with long lasting effects.

**SECTION 3: Composition/information on ingredients**

**3.1 Substance**

Not applicable, this product is a mixture


**3.2 Mixture**

**Hazardous Ingredients and Impurities**

Chemical Name	Identification number CAS-No.	Concentration [%]
Sulfuric acid	7664-93-9	93

**Non Hazardous Ingredients and Impurities**

Chemical Name	Identification number CAS-No.	Concentration [%]
Water	7732-18-5	7

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#### SECTION 4: First aid measures

##### 4.1 Description of first-aid measures

- If inhaled : Remove victim from exposure and then have him lie down in the recovery position.  
In case of shortness of breath, give oxygen.  
If victim has stopped breathing:  
administer CPR (cardio-pulmonary resuscitation)  
Immediate medical attention is required.
- Skin contact : In case of contact, immediately flush skin with plenty of water for at least 30 minutes.  
Remove all contaminated apparel under the shower.  
Wash off with plenty of water.  
Do not attempt to neutralize with chemical agents  
Immediate medical attention is required.
- Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 30 minutes.  
Immediate medical attention is required.
- Ingestion : Do NOT induce vomiting.  
If victim is conscious:  
Rinse mouth with water.  
Do not leave the victim unattended  
Risk of product entering the lungs on vomiting after ingestion.  
Lay victim on side.  
Never give anything by mouth to an unconscious person.  
Immediate medical attention is required.

##### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis  
Skin contact may aggravate existing skin disease

##### 4.3 Indication of any immediate medical attention and special treatment needed


- Notes to physician : 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.

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#### SECTION 5: Firefighting measures

- Flash point : Not applicable
- Autoignition temperature : no data available
- Flammability / Explosive limit : no data available

##### 5.1 Extinguishing media

SAFETY DATA SHEET		
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Revision 2 US ( EN )	Issuing date 05/09/2016	

Suitable extinguishing media : Dry chemical

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Not combustible.  
Strong oxidizer. Contact with other material may cause fire.  
Reacts violently with water.  
Corrosive or suffocating vapors are released.  
On combustion or on thermal decomposition (pyrolysis), releases:  
Sulfur oxides  
Sulfuric acid reacts with metals, especially when diluted with water. This reaction produces highly flammable hydrogen gas, which may explode when ignited, especially in confined spaces.

#### 5.3 Advice for firefighters

Special protective equipment for fire-fighters : Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.  
Acid-resistant protective clothing

Specific fire fighting methods : Fight fire with normal precautions from a reasonable distance.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures : The product must only be handled by specifically trained employees.

#### 6.2 Environmental precautions


Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.  
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

#### 6.3 Methods and materials for containment and cleaning up

Recovery : Stop leak if safe to do so.  
Dam up with sand or inert earth (do not use combustible materials).

Decontamination / cleaning : Pump or collect any free spillage into an appropriate closed container (see Section 7: Handling and Storage).  
Exercise caution during neutralization as considerable heat may be generated.  
Carefully neutralize the remainder using:  
soda ash  
Soak up with inert absorbent material.  
Scrape up  
Keep in suitable, closed containers for disposal.



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SULFURIC ACID 93% ELECTROLYTE		
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#### 6.4 Reference to other sections

Reference to other sections : 7. HANDLING AND STORAGE

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

- Technical measures : Do not breathe mist or vapors.  
Avoid contact with the skin and the eyes.  
When diluting, always add the product to water. Never add water to the product.  
Reacts violently with bases.
- Hygiene measures : Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:  
1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.  
2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.  
3) Wash exposed skin promptly to remove accidental splashes or contact with material.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage conditions

- Recommended : Keep tightly closed.  
Store in an area:  
dry  
well-ventilated  
diked

##### Storage stability

- Storage temperature : < 104 °F (< 40 °C)
- Other data : Corrosion rates increase at elevated temperatures

#### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

**Introductory Remarks:** These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

### 8.1 Control parameters

Ingredients with workplace control parameters

Ingredients	Value type	Value	Basis
Sulfuric acid	TWA	1 mg/m3	NIOSH
Sulfuric acid	TWA	0.2 mg/m3	ACGIH
Form of exposure: Thoracic fraction Pulmonary function. Classification refers to sulfuric acid contained in strong inorganic acid mists. Suspected human carcinogen			
Sulfuric acid	TWA	1 mg/m3	OSHA Z-1
Sulfuric acid	TWA	1 mg/m3	OSHA Z-1-A
Sulfuric acid	TWA	0.2 mg/m3	SOLVAY

### NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS-No.	Concentration
Sulfuric acid	7664-93-9	15 milligram per cubic meter

### 8.2 Exposure controls

#### Control measures

##### Engineering 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:

Effective exhaust ventilation system

#### Personal protective equipment

##### Respiratory protection


- 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.

Recommended Filter type: Acidic gas/vapor type

##### Eye protection

- 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.

Eye contact should be prevented through the use of

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Wear protective eye glasses for protection against liquid splashes (goggles)

**Skin and body protection**

- : Wear as appropriate
- Face-shield
- Acid-resistant protective clothing
- Acid resistant boots

**Hygiene measures**

- : Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material

**Protective measures**

- : Ensure that eyewash stations and safety showers are close to the workstation location

## SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

### 9.1 Information on basic physical and chemical properties

Appearance	: Form : oily Physical state : liquid Color: colorless
Odor	: odorless
Odor Threshold	: no data available
pH	: 1.0 ( 1 % (m/v))
Melting point/range	: -26 °F (-32 °C)
Boiling point/boiling range	: 529 °F (276 °C) ( 760 mmHg (1,013 25 hPa))
Flash point	: Not applicable
Evaporation rate (Butylacetate = 1)	: no data available
Flammability (solid, gas)	: no data available
Flammability (liquids)	: no data available
Flammability / Explosive limit	: no data available
Autoignition temperature	: no data available

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Vapor pressure	: < 1 mmHg (1.33 hPa) ( 104 °F (40 °C))
Vapor density	: no data available
Density	: Relative density : 1.836 ( 61 °F (16 °C))
Solubility	: <u>Water solubility</u> miscible
Partition coefficient: n-octanol/water	: no data available
Thermal decomposition	: no data available
Viscosity	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

#### 9.2 Other information

Molecular weight	: 98.08 g/mol
Reactions with water / air	: Reacts violently with water.

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

no data available

#### 10.2 Chemical stability


Chemical stability : Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

Contact with metals may evolve flammable hydrogen gas, especially in confined spaces.  
Hazardous polymerization does not occur.

#### 10.4 Conditions to avoid

no data available

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#### 10.5 Incompatible materials

Materials to avoid :

- Water
- Strong reducing agents
- Halogenated compounds
- Bases
- metals
- Nitrogen oxides (NOx)

#### 10.6 Hazardous decomposition products

Decomposition products :

- On combustion or on thermal decomposition (pyrolysis), releases Sulfur oxides

### SECTION 11: Toxicological Information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Acute oral toxicity  
 Sulfuric acid

LD50 Oral : 2,140 mg/kg - Rat  
 Gavage  
 Published data

Acute inhalation toxicity  
 Sulfuric acid

LC50 - 4 h ( aerosol ) : 0.375 mg/l - Rat , male and female  
 Toxicity secondary to corrosive effects at site of contact.  
 Published data


LC50 - 4 h ( aerosol ) : 0.85 mg/l - Mouse , male and female  
 Toxicity secondary to corrosive effects at site of contact.  
 Published data

( Mist ) Humans  
 Symptoms: Potential health effects, Respiratory disorders, Symptoms may be delayed, Cough, Risk of delayed pulmonary edema.  
 Effects of breathing high concentration of respirable particles may include  
 May cause irritation of respiratory tract.  
 Lung Irritation  
 Published data

Acute dermal toxicity  
 Sulfuric acid

Not classified as hazardous for acute toxicity according to GHS  
 Not applicable  
 Corrosive  
 Internal evaluation

Acute toxicity (other routes of administration) : no data available

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**Skin corrosion/irritation**

**Skin irritation**

Sulfuric acid

- Causes severe burns
- Published data

**Serious eye damage/eye irritation**

**Eye irritation**

Sulfuric acid

- Risk of serious damage to eyes
- Published data

**Respiratory or skin sensitization**

**Sensitization**

Sulfuric acid

- Local lymph node assay
- Not applicable
- Corrosive
- The product is not considered to be sensitizing by skin contact
- Internal evaluation

**Mutagenicity**

**Genotoxicity in vitro**


Sulfuric acid

- Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation
- negative
- Method OECD Test Guideline 471
- Published data
- Chromosome aberration test in vitro
- Strain Chinese hamster ovary cells
- with and without metabolic activation
- positive
- Effects observed are due to the reduced pH in the test medium
- Published data

Product is not considered to be genotoxic

**Genotoxicity in vivo**

- no data available

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**Carcinogenicity**  
**Carcinogenicity**  
 Sulfuric acid

☐ Inhalation (mist)

Animal studies  
 Unpublished reports  
 Published data  
 No carcinogenic effects have been observed


Note: IARC Classification: Group 1  
 mists from strong inorganic acids

IARC and NTP classified "occupational exposure to strong inorganic acid mists containing sulfuric acid" as a known human carcinogen. ACGIH has also classified "sulfuric acid as contained in strong inorganic acid mists" as a suspected human carcinogen. There is still a debate on the studies reviewed by these agencies. We disagree with IARC's conclusion, in that more recent studies have failed to find association between "occupational exposure to strong inorganic acid mist containing sulfuric acid," and laryngeal or lung cancer. In fact, in 2012 IARC revised their classification dropping the "containing sulfuric acid" wording. Lifetime animal studies in hamsters, rats, and guinea pigs were conducted by the EPA and NIEHS and were all negative. However, they were not formally published by the agencies and not considered by IARC or NTP.

Ingredients	CAS-No	Rating	Basis
Strong inorganic acid mists containing sulfuric acid	7664-93-9	Group 1: Carcinogenic to humans	IARC
Strong inorganic acid mists containing sulfuric acid		Suspected human carcinogen	ACGIH
Strong inorganic acid mists containing sulfuric acid		Known to be human carcinogen	NTP
Sulfuric acid		Suspected human carcinogen	ACGIH

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

OSHA  
 NTP  
 IARC

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**Toxicity for reproduction and development**

**Toxicity to reproduction / fertility**

Sulfuric acid

- Effects on fertility
- fetotoxic effect
- no observed effect

**Developmental Toxicity/Teratogenicity**

Sulfuric acid

- Rabbit
- Application Route: inhalation (mist)
- NOAEC teratogenicity: 19.3 mg/m3
- Method: OECD Test Guideline 414
- no teratogenic effects have been observed
- Mouse
- Application Route: inhalation (mist)
- NOAEC teratogenicity: 19.3 mg/m3
- Method: OECD Test Guideline 414
- no teratogenic effects have been observed
- Published data

**STOT**

**STOT-single exposure**

Sulfuric acid

- Routes of exposure: inhalation (mist)
- Target Organs: Respiratory Tract
- Toxicology Assessment
- May cause respiratory irritation

**STOT-repeated exposure**

Sulfuric acid


- Toxicology Assessment
- The substance or mixture is not classified as specific target organ toxicant, repeated exposure, internal evaluation

Sulfuric acid

- inhalation (mist) 28 d - Rat
- LOAEC: 0.3 mg/m3
- Target Organs: Larynx
- Method: OECD Test Guideline 412
- Symptoms: Local irritation
- Unpublished reports
- inhalation (mist) 78 Weeks - Monkey
- LOAEC: 0.38 mg/m3
- Target Organs: Respiratory Tract
- Symptoms: Local irritation, Respiratory disorders
- Published data

Repeated inhalation of aerosols may cause adverse effects on health



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**Experience with human exposure**

Experience with human exposure : Inhalation  
Sulfuric acid

: Target Organs: Respiratory Tract

Target Organs: Nose

Symptoms: Burning sensations in the nose and throat.

Breathing difficulties

Dental erosion

Mist

At high concentrations:

Irritating to the respiratory system and mucous membranes

Published data

**Carcinogenicity**

Sulfuric acid

: Carcinogenicity classification not possible from current data

**Teratogenicity**

Sulfuric acid

: Did not show teratogenic effects in animal experiments

**Aspiration toxicity**

Aspiration toxicity

Sulfuric acid

: Not applicable

---

**SECTION 12: Ecological Information**

**12.1 Toxicity**

**Aquatic Compartment**

Acute toxicity to fish

Sulfuric acid

: LC50 - 96 h : 16 - 28 mg/l - *Lepomis macrochirus* (Bluegill sunfish)  
static test

Non neutralized product

pH 3.5 - 3.25

Harmful to fish

Published data

Acute toxicity to daphnia and other aquatic invertebrates

Sulfuric acid

: EC50 - 48 h : > 100 mg/l - *Daphnia magna* (Water flea)  
static test Method: OECD Test Guideline 202  
Fresh water  
Neutralized product  
Not harmful to aquatic invertebrates. (EC50 > 100 mg/L)  
Unpublished reports


EC50 - 24 h : 29 mg/l - *Daphnia magna* (Water flea)

Method: ISO 6341

Non neutralized product

Harmful to aquatic invertebrates

Published data

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Toxicity to aquatic plants  
Sulfuric acid

- : NOEC : 0.13 mg/l - Algae  
field study  
pH 5.6  
Non neutralized product  
Published data
- ErC50 - 72 h : > 100 mg/l - *Desmodesmus subspicatus* (green algae)  
Growth inhibition  
Method: OECD Test Guideline 201  
Neutralized product  
Unpublished reports

Chronic toxicity to fish  
Sulfuric acid

- : NOEC: 0.13 mg/l - 10 Months - *Salvelinus fontinalis* (brown trout)  
flow-through test  
pH 5.6  
Fresh water  
Non neutralized product  
Published data

Ecotoxicity assessment  
Acute aquatic toxicity  
Sulfuric acid

- : If the product is not neutralized, it may cause adverse effects to aquatic organisms due to its acidity.  
Neutralization will reduce ecotoxic effects

Chronic aquatic toxicity  
Sulfuric acid

- : If the product is not neutralized, it may cause adverse effects to aquatic organisms due to its acidity

**12.2 Persistence and degradability**

Biodegradability  
Biodegradability  
Sulfuric acid

- : Not applicable, inorganic substance

Stability  
Stability in water  
Sulfuric acid

- : Product dissociates rapidly to corresponding ions on contact with water.


**12.3 Bioaccumulative potential**  
Partition coefficient: n-octanol/water  
Sulfuric acid

- : Not applicable, inorganic substance

Bioconcentration factor (BCF)  
Sulfuric acid

- : Not relevant  
Internal evaluation

**12.4 Mobility in soil**  
no data available

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#### 12.5 Results of PBT and vPvB assessment

##### Results of PBT and vPvB assessment

Sulfuric acid

- : This substance is not considered to be persistent, bioaccumulating, and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### 12.6 Other adverse effects

##### Environment assessment

Sulfuric acid

- : Not classified as Dangerous for the Environment

---

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product Disposal

##### Advice on 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.

##### Waste Code

- : EPA:  
Hazardous Waste – YES
- RCRA:  
D002 - Corrosive waste – (C)  
D003 - Reactive waste – (R)

---

### SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

#### DOT

<u>14.1 UN number</u>	UN 1830
<u>14.2 Dangerous Good Description</u>	UN 1830 SULFURIC ACID, 8, II
<u>14.3 Transport hazard class</u>	8
<u>14.4 Packing group</u>	II
Packing group	II
Label(s)	8
ERG No	137
<u>14.5 Environmental hazards</u>	NO
Marine pollutant	

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#### 14.6 Special precautions for user

This product contains one or more ingredients identified as a hazardous substance in Appendix A of 49 CFR 172.101. The product quantity, in one package, which triggers the RQ requirements under 49 CFR for each hazardous substance is shown.

Reportable quantities : RQ substance: Sulfuric acid  
 RQ limit for substance: 1,000 lb  
 RQ limit for product: 1,075 lb

#### TDG

14.1 UN number UN 1830  
14.2 Dangerous Good Description UN 1830 SULFURIC ACID, 8, II  
14.3 Transport hazard class 8  
14.4 Packing group  
 Packing group II  
 Label(s) 8  
 ERG No 137  
14.5 Environmental hazards NO  
Marine pollutant


#### IMDG

14.1 UN number UN 1830  
14.2 Dangerous Good Description UN 1830 SULPHURIC ACID, 8, II  
14.3 Transport hazard class 8  
14.4 Packing group  
 Packing group II  
 Label(s) 8  
 EmS F-A, S-B  
14.5 Environmental hazards NO  
Marine pollutant

14.6 Special precautions for user  
 For personal protection see section 8.

#### IATA

14.1 UN number UN 1830  
14.2 Dangerous Good Description UN 1830 SULPHURIC ACID, 8, II

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<b>14.3 Transport hazard class</b>	8
<b>14.4 Packing group</b>	II
Packing group	II
Label(s)	8
Packing instruction (cargo aircraft)	855
Max net qty / pkg	30.00 L
Packing instruction (passenger aircraft)	851
Max net qty / pkg	1.00 L

<b>14.5 Environmental hazards</b>	NO
Marine pollutant	

**14.6 Special precautions for user**  
 For personal protection see section 8.


Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

## SECTION 15: Regulatory information

### 15.1 Notification status

United States TSCA Inventory	: YES (positive listing) On TSCA Inventory
Canadian Domestic Substances List (DSL)	: YES (positive listing) All components of this product are on the Canadian DSL.
Australia Inventory of Chemical Substances (AICS)	: YES (positive listing) On the inventory, or in compliance with the inventory
Japan CSCL - Inventory of Existing and New Chemical Substances	: YES (positive listing) On the inventory, or in compliance with the inventory
Korea Korean Existing Chemicals Inventory (KECI)	: YES (positive listing) On the inventory, or in compliance with the inventory
China Inventory of Existing Chemical Substances in China (IECSC)	: YES (positive listing) On the inventory, or in compliance with the inventory

### 15.2 Federal Regulations

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**SARA 311/312 Hazards**

Fire Hazard	no
Reactivity Hazard	yes
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	no

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313  
 Sulfuric acid 7664-93-9 93 %

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302

Ingredients	CAS-No.	Threshold planning quantity	Remarks
Sulfuric acid	7664-93-9	1000 lb	

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

**CERCLA Reportable Quantity**

Ingredients	CAS-No.	Reportable quantity
Unlisted hazardous wastes - Characteristic of Corrosivity		100 lb
Unlisted hazardous wastes - Characteristic of Reactivity		100 lb
Sulfuric acid	7664-93-9	1000 lb

**SARA 304 Reportable Quantity**

Ingredients	CAS-No.	Reportable quantity
Sulfuric acid	7664-93-9	1000 lb

**SARA 302 Reportable Quantity**


Ingredients	CAS-No.	Reportable quantity
Sulfuric acid	7664-93-9	1000 lb

**15.3 State Regulations**

**California Prop 65** : WARNING! This product contains a chemical known in the State of California to cause cancer.  
 Strong inorganic acid mists containing sulfuric acid

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects

**SECTION 16: Other Information**

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**NFPA (National Fire Protection Association) - Classification**

Health : 3 serious  
Flammability : 0 minimal  
Instability or Reactivity : 2 moderate

**HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification**

Health : 3 serious  
Flammability : 0 minimal  
Reactivity : 2 moderate

**Further information**

Date Prepared : 01/15/2015  
Further information : Product classified under the US GHS format.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

TWA : 8-hour, time-weighted average  
ACGIH : American Conference of Governmental Industrial Hygienists  
OSHA : Occupational Safety and Health Administration  
WHMIS : Workplace Hazardous Materials Information System  
NTP : National Toxicology Program  
IARC : International Agency for Research on Cancer  
NIOSH : Solvay Acceptable Exposure Limit  
NIOSH : National Institute for Occupational Safety and Health  
NFPA : National Fire Protection Association  
HMIS : Hazardous Materials Identification System (Paint & Coating)

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO® 7469

Other means of identification : Not applicable.

Recommended use : ANTIFOAM

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 05/19/2014

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Specific measures: consult MSDS Section 4.  
**Storage:**  
Store in accordance with local regulations.

Other hazards : None known.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

No hazardous ingredients

**Section: 4. FIRST AID MEASURES**

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.



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Notes to physician : No specific measures identified.

See toxicological information (Section 11)

### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Carbon oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
- Packaging material : Suitable material: Keep in properly labelled containers., 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.

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Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : Light yellow

Odour : None

Flash point : > 100 °C  
Method: ASTM D 93, Pensky-Martens closed cup

pH : 7.5 - 9.0, 100 %

Odour Threshold : no data available

Melting point/freezing point : -1.6 °C

Initial boiling point and boiling range : no data available

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 0.5 mm Hg (37.8 °C) similar to water

Relative vapour density : no data available

Relative density : 0.95 - 1.02 (20 °C)

Density : no data available

Water solubility : completely soluble

Solubility in other solvents : no data available

Partition coefficient: n-octanol/water : no data available

Auto-ignition temperature : no data available

Thermal decomposition : Carbon oxides

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Viscosity, dynamic : 1,120 mPa.s (23 °C)

Viscosity, kinematic : 1,180 mm<sup>2</sup>/s (23 °C)

VOC : no data available

### Section: 10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : None known.

Incompatible materials : Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

Hazardous decomposition products : Oxides of carbon

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes : Health injuries are not known or expected under normal use.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

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

## SAFETY DATA SHEET

**NALCO® 7469**

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	
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 identified as a carcinogen or potential carcinogen by OSHA.
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.
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish	: LC50 Rainbow Trout: > 1,000 mg/l Exposure time: 96 hrs Test substance: 1% Aqueous Solution of Product  LC50 Fathead Minnow: > 1,000 mg/l Exposure time: 96 hrs Test substance: 1% Aqueous Solution of Product
Toxicity to daphnia and other aquatic invertebrates	: LC50 Daphnia magna: > 1,000 mg/l Exposure time: 48 hrs Test substance: 1% Aqueous Solution of Product
Toxicity to algae	: no data available

## SAFETY DATA SHEET

**NALCO® 7469**

### Persistence and degradability

Chemical Oxygen Demand (COD): 653,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

94,100 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	: 10 - 30%
Water	: 10 - 30%
Soil	: 70 - 90%

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

### Bioaccumulative potential

no data available

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods	: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
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Disposal considerations	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
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## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name	: PRODUCT IS NOT REGULATED DURING TRANSPORTATION
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### Air transport (IATA)

## SAFETY DATA SHEET

**NALCO® 7469**

Proper shipping name : PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

### Sea Transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

## Section: 15. REGULATORY INFORMATION

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

#### 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** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

## SAFETY DATA SHEET

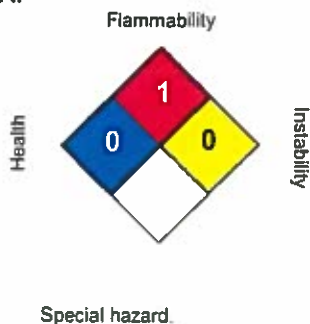
**NALCO® 7469**

### PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 05/19/2014  
Version Number : 1.0  
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 MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

## SAFETY DATA SHEET

**PermaTreat® PC-391T**

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PermaTreat® PC-391T

Other means of identification : Not applicable

Recommended use : REVERSE OSMOSIS ANTISCALANT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/13/2017

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS label elements

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

No hazardous ingredients

### SECTION 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put



## SAFETY DATA SHEET

### PermaTreat® PC-391T

yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : Keep in properly labelled containers.

## SAFETY DATA SHEET

### PermaTreat® PC-391T

Unsuitable 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.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : Clear, yellow to amber

Odour : amine-like

Flash point : No data available

pH : 10.8, 100 %

Odour Threshold : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Evaporation rate : No data available

Flammability (solid, gas) : 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 : 1.11, (15.6 °C),

Density : 9.2 lb/gal

## SAFETY DATA SHEET

### PermaTreat® PC-391T

Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition temperature	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Molecular weight	: No data available
VOC	: No data available

### SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Extremes of temperature
Incompatible materials	: Strong acids Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: No symptoms known or expected.
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## SAFETY DATA SHEET

### PermaTreat® PC-391T

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 sensitisation : No data available  
Carcinogenicity : No data available  
Reproductive effects : No data available  
Germ cell mutagenicity : No data available  
Teratogenicity : No data available  
STOT - single exposure : No data available  
STOT - repeated exposure : No data available  
Aspiration toxicity : No data available

## SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): 160 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
  
LC50 *Ictalurus punctatus* (channel catfish): 1,212 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
  
LC50 *Cyprinodon variegatus* (sheepshead minnow): > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
  
LC50 *Lepomis macrochirus* (Bluegill sunfish): > 330 mg/l  
Exposure time: 96 hrs

## SAFETY DATA SHEET

PermaTreat® PC-391T

Test substance: Active Substance

LC50 Fathead Minnow: > 10,000 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Fathead Minnow: 10,000 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Grass Shrimp: > 5,000 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

EC50 Daphnia magna (Water flea): 297 mg/l

Exposure time: 48 hrs

Test substance: Active Substance

EC50 Ceriodaphnia dubia: 4,648 mg/l

Exposure time: 48 hrs

Test substance: Product

Test Type: Immobilization

LC50 Ceriodaphnia dubia: 4,648 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Ceriodaphnia dubia: 3,600 mg/l

Exposure time: 48 hrs

Test substance: Product

### Persistence and degradability

No data available

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

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

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

## SAFETY DATA SHEET

PermaTreat® PC-391T

### Other Information

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

### Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

## SECTION 15. REGULATORY INFORMATION

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

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### California Prop 65

## **SAFETY DATA SHEET**

### **PermaTreat® PC-391T**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

##### **United States TSCA Inventory**

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### **Australia. Industrial Chemical (Notification and Assessment) Act**

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

##### **Canadian Domestic Substances List (DSL)**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

##### **Japan. ENCS - Existing and New Chemical Substances Inventory**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

##### **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**

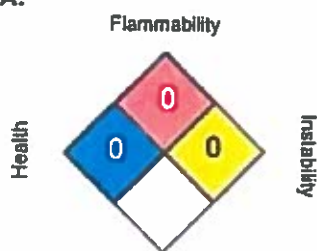
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### **SECTION 16. OTHER INFORMATION**

## SAFETY DATA SHEET

PermaTreat® PC-391T

### NFPA:



### HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 02/13/2017  
Version Number : 2.1  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.





# SAFETY DATA SHEET

## PRODUCT

**CAT-FLOC 8103 PLUS**

EMERGENCY TELEPHONE NUMBER(S)  
(800) 424-9300 (24 Hours) CHEMTREC

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CAT-FLOC 8103 PLUS

APPLICATION : WATER TREATMENTWATER CLARIFICATION AID

COMPANY IDENTIFICATION : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois  
60563-1198

EMERGENCY TELEPHONE NUMBER(S) : (800) 424-9300 (24 Hours) CHEMTREC

### NFPA 704M/HMIS RATING

HEALTH : 0 / 1 FLAMMABILITY : 1 / 1 INSTABILITY : 0 / 0 OTHER :  
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme \* = Chronic Health Hazard

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

## 3. HAZARDS IDENTIFICATION

### \*\*EMERGENCY OVERVIEW\*\*

#### CAUTION

May cause irritation with prolonged contact.  
Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water.  
Wear suitable protective clothing.  
May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.  
May evolve ammonia under fire conditions. May evolve HCl under fire conditions.

PRIMARY ROUTES OF EXPOSURE :  
Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE :

EYE CONTACT :  
May cause irritation with prolonged contact.

SKIN CONTACT :  
May cause irritation with prolonged contact.

INGESTION :  
Not a likely route of exposure. No adverse effects expected.

Nalco Company 1601 W. Diehl Road • Naperville, Illinois 60563-1198 • (630)305-1000  
For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.



## SAFETY DATA SHEET

### PRODUCT

**CAT-FLOC 8103 PLUS**

### EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

#### INHALATION :

Not a likely route of exposure. No adverse effects expected.

#### SYMPTOMS OF EXPOSURE :

##### Acute :

A review of available data does not identify any symptoms from exposure not previously mentioned.

##### Chronic :

A review of available data does not identify any symptoms from exposure not previously mentioned.

#### AGGRAVATION OF EXISTING CONDITIONS :

A review of available data does not identify any worsening of existing conditions.

## 4. FIRST AID MEASURES

#### EYE CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

#### SKIN CONTACT :

Remove contaminated clothing. Wash off affected area immediately with plenty of water. If symptoms develop, seek medical advice.

#### INGESTION :

Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If symptoms develop, seek medical advice.

#### INHALATION :

Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

#### NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

## 5. FIRE FIGHTING MEASURES

#### FLASH POINT :

Not flammable

#### EXTINGUISHING MEDIA :

This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire. Water mist may be used to cool closed containers.

#### FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve ammonia under fire conditions. May evolve HCl under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS :**

Notify appropriate government, occupational health and safety and environmental authorities. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

**METHODS FOR CLEANING UP :**

**SMALL SPILLS:** Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

**ENVIRONMENTAL PRECAUTIONS :**

This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

**7. HANDLING AND STORAGE****HANDLING :**

Do not take internally. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Avoid eye and skin contact.

**STORAGE CONDITIONS :**

Store separately from oxidizers. Store the containers tightly closed. Protect product from freezing.

**SUITABLE CONSTRUCTION MATERIAL :**

HDPE (high density polyethylene), Neoprene, Brass, Buna-N, Polyurethane, PVC, Polypropylene, Polyethylene, Stainless Steel 304, EPDM, Epoxy phenolic resin, 100% phenolic resin liner, Chlorosulfonated polyethylene rubber, Fluoroelastomer

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****OCCUPATIONAL EXPOSURE LIMITS :**

This product does not contain any substance that has an established exposure limit.

**ENGINEERING MEASURES :**

General ventilation is recommended.

**RESPIRATORY PROTECTION :**

Respiratory protection is not normally needed.

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****HAND PROTECTION :**

When handling this product, the use of chemical gloves is recommended. The choice of work glove depends on work conditions and what chemicals are handled. Please contact the PPE manufacturer for advice on what type of glove material may be suitable. Gloves should be replaced immediately if signs of degradation are observed.

**SKIN PROTECTION :**

Wear standard protective clothing.

**EYE PROTECTION :**

Wear chemical splash goggles.

**HYGIENE RECOMMENDATIONS :**

Keep an eye wash fountain available. Keep a safety shower available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE	Viscous liquid
APPEARANCE	Clear Yellow
ODOR	None
SPECIFIC GRAVITY	1.018 - 1.058 @ 77 °F / 25 °C
DENSITY	8.5 - 8.81 lb/gal
SOLUBILITY IN WATER	Complete
pH (100 %)	5.0 - 8.0
VISCOSITY	< 1,050 cps @ 77 °F / 25 °C
FREEZING POINT	14 °F / -9.9 °C
BOILING POINT	> 212 °F / > 100 °C
VAPOR PRESSURE	Same as water
VAPOR DENSITY	Same as water
VOC CONTENT	0.00 % EPA Method 24

Note: These physical properties are typical values for this product and are subject to change.

**10. STABILITY AND REACTIVITY****STABILITY :**

Stable under normal conditions.

**HAZARDOUS POLYMERIZATION :**

Hazardous polymerization will not occur.

**CONDITIONS TO AVOID :**

Avoid extremes of temperature.

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****MATERIALS TO AVOID :**

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

**HAZARDOUS DECOMPOSITION PRODUCTS :**

Under fire conditions: Oxides of carbon, Oxides of nitrogen, May evolve ammonia under fire conditions., HCl

**11. TOXICOLOGICAL INFORMATION**

The following results are for the polymer.

**ACUTE ORAL TOXICITY :**

Species: Rat  
LD50: 25,500 mg/kg  
Test Descriptor: Similar Product

**ACUTE DERMAL TOXICITY :**

Species: Rabbit  
LD50: > 20,000 mg/kg  
Test Descriptor: 40% Active Ingredient

**PRIMARY SKIN IRRITATION :**

Species: Rabbit  
Draize Score: 1.0 /8.0  
Test Descriptor: Similar Product

**PRIMARY EYE IRRITATION :**

Species: Rabbit  
Draize Score: 8.0 /110.0  
Test Descriptor: Similar Product

**SENSITIZATION :**

This product is not expected to be a sensitizer.

**CARCINOGENICITY :**

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

**HUMAN HAZARD CHARACTERIZATION :**

Based on our hazard characterization, the potential human hazard is: Low

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL EFFECTS :**

The tests for (products or similar products) were performed in clean water as set forth by USEPA (EPA/600/4-90/027). In order to evaluate the potential toxicity mitigation, the tests for (representative polymers) were performed in environmentally relevant water with dissolved organic carbon (DOC: 4.5 mg/l). The toxicity of this product is due to an external mode of action, e.g., suffocation or immobilization. In the presence of suspended material, e.g., DOC, the polymers are bound to suspended material and the bioavailability is substantially reduced. As a result, the toxicity is expected to be lower. Under normal use and discharge conditions, the LC50 values of the representative polymers tested in the presence of DOC are expected to apply to this product. However, for large spills, the clean water data is more applicable.

**Acute Fish Results :**

Species	Exposure	Test Type	Value	Test Descriptor
Rainbow Trout	96 hrs	LC50	0.85 mg/l	Similar product tested in clean water
Inland Silverside	96 hrs	LC50	> 5,000 mg/l	Product tested in synthetic sea water
Zebra Danio	96 hrs	LC50	10 - 100 mg/l	Representative polymer tested in water with DOC
Fathead Minnow	96 hrs	LC50	3.29 mg/l	Product tested in clean water

**ACUTE INVERTEBRATE RESULTS :**

Species	Exposure	Test Type	Value	Test Descriptor
Daphnia magna	48 hrs	LC50	2.06 mg/l	Similar product tested in clean water
Ceriodaphnia dubia	48 hrs	LC50	2.5 mg/l	Product tested in clean water
Daphnia magna	48 hrs	LC50	10 - 100 mg/l	Representative polymer tested in water with DOC

**Chronic Invertebrate Results :**

Species	Exposure	Test Type	Value	End Point	Test Descriptor
Ceriodaphnia dubia	7 Days	LOEC	2.5 mg/l	Reproduction	Product
Ceriodaphnia dubia	7 Days	EC50	1.33 mg/l	Reproduction	Product
Ceriodaphnia dubia	7 Days	EC25 / IC25	0.96 mg/l	Reproduction	Product
Ceriodaphnia dubia	7 Days	NOEC	1.25 mg/l	Reproduction	Product

**ADDITIONAL ECOLOGICAL DATA**

NOEC on earthworm: > 1000 mg/l (representative polymer) AOX information: Product contains no organic halogens.

**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.

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC**

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	Water	Soil/Sediment
<5%	30 - 50%	50 - 70%

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

**BIOACCUMULATION POTENTIAL**

This preparation or material is not expected to bioaccumulate.

**ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION**

Based on our hazard characterization, the potential environmental hazard is: High

**OTHER INFORMATION**

The hazard characterization is based on the tests or potential hazard in the clean water.

If released into the environment, see CERCLA/SUPERFUND in Section 15.

**13. DISPOSAL CONSIDERATIONS**

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

**14. TRANSPORT INFORMATION**

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

**LAND TRANSPORT :**

Proper Shipping Name :

**PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION**

**AIR TRANSPORT (ICAO/IATA) :**

Proper Shipping Name :

**PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION**

**MARINE TRANSPORT (IMDG/IMO) :**

Proper Shipping Name :

**PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION**

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****15. REGULATORY INFORMATION**

This section contains additional information that may have relevance to regulatory compliance. The information in this section is for reference only. It is not exhaustive, and should not be relied upon to take the place of an individualized compliance or hazard assessment. Nalco accepts no liability for the use of this information.

**NATIONAL REGULATIONS, USA :****OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :**

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

**CERCLA/SUPERFUND, 40 CFR 302 :**

Notification of spills of this product is not required.

**SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :****SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :**

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

**SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :**

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :**

This product does not contain substances on the List of Toxic Chemicals.

**TOXIC SUBSTANCES CONTROL ACT (TSCA) :**

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

**FOOD AND DRUG ADMINISTRATION (FDA) Federal Food, Drug and Cosmetic Act :**

When use situations necessitate compliance with FDA regulations, this product is acceptable under : 21 CFR 176.170 Components of paper and paperboard in contact with aqueous and fatty foods and 21 CFR 176.180 Components of paper and paperboard in contact with dry foods.

1) As a flocculant employed prior to the sheet-forming operation in the manufacture of paper and paperboard and used at a level not to exceed 10 mg/L (10 ppm) of influent water. 2) As a pigment dispersant and/or retention aid prior to the sheet-forming operation at an active polymer level not to exceed 0.5% of finished paper and paperboard with the level of residual monomer not to exceed 1 weight percent of the polymer (dry basis). 3) As a pigment dispersant in coatings at an active polymer level not to exceed 0.18% of finished paper and paperboard.

This product has been certified as KOSHER/PAREVE for year-round use INCLUDING THE PASSOVER SEASON by the CHICAGO RABBINICAL COUNCIL.



**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****NSF INTERNATIONAL :**

This product has received NSF/International certification under NSF/ANSI Standard 60 in the coagulation and flocculation category. The official name is "Poly (Diallyldimethylammonium Chloride) (pDADMAC)." Maximum product application dosage is : 57 mg/l.

**FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :**

Substances listed under this regulation are not intentionally added or expected to be present in this product. Listed components may be present at trace levels.

**CLEAN AIR ACT, Sec. 112 (Hazardous Air Pollutants, as amended by 40 CFR 63), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :**

Substances listed under this regulation are not intentionally added or expected to be present in this product. Listed components may be present at trace levels.

**CALIFORNIA PROPOSITION 65 :**

Substances listed under California Proposition 65 are not intentionally added or expected to be present in this product.

**MICHIGAN CRITICAL MATERIALS :**

Substances listed under this regulation are not intentionally added or expected to be present in this product. Listed components may be present at trace levels.

**STATE RIGHT TO KNOW LAWS :**

Substances listed under this regulation are not intentionally added or expected to be present in this product. Listed components may be present at trace levels.

**INTERNATIONAL CHEMICAL CONTROL LAWS :****CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :**

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

**AUSTRALIA**

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

**CHINA**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on the Inventory of Existing Chemical Substances China (IECSC).

**EUROPE**

The substance(s) in this preparation are included in or exempted from the EINECS or ELINCS inventories

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC****JAPAN**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

**KOREA**

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

**NEW ZEALAND**

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

**PHILIPPINES**

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

**16. OTHER INFORMATION**

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

**REFERENCES**

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

**SAFETY DATA SHEET****PRODUCT****CAT-FLOC 8103 PLUS****EMERGENCY TELEPHONE NUMBER(S)****(800) 424-9300 (24 Hours) CHEMTREC**

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH,  
(TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight™ (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Prepared By : Product Safety Department

Date issued : 09/14/2011

Version Number : 4.10

## SAFETY DATA SHEET

**NALCO® 7408**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 7408

Other means of identification : Not applicable.

Recommended use : CHLORINE SCAVENGER

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/14/2019

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

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

#### GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : May be corrosive to metals.  
Harmful if swallowed.  
Contact with acids liberates toxic gas.

Precautionary Statements : **Prevention:**  
Keep only in original container. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
**Storage:**  
Store in corrosive resistant container with a resistant inner liner. Protect product from freezing.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : The head space of containers containing this product may accumulate Sulphur

## SAFETY DATA SHEET

**NALCO® 7408**

Dioxide (SO<sub>2</sub>). SO<sub>2</sub> is a toxic and irritating gas that can be hazardous if inhaled.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bisulfite	7631-90-5	30 - 60

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Heating or fire can release toxic gas.  
May evolve oxides of sulfur (SO<sub>x</sub>) under fire conditions.

Hazardous combustion products : Decomposition products may include the following materials: Sulphur oxides  
metal oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Ensure clean-up is conducted by trained personnel only. Refer to protective

## SAFETY DATA SHEET

**NALCO® 7408**

protective equipment and emergency procedures : measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Wash hands thoroughly after handling. Use only with adequate ventilation. Containers should be opened cautiously and only in well ventilated areas.

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in a well-ventilated place. Store in suitable labelled containers. Do not store at elevated temperature.

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Exposure limits are listed for sulfur dioxide (SO<sub>2</sub>) since this product evolves SO<sub>2</sub> when open to the atmosphere.

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Bisulfite	7631-90-5	TWA	5 mg/m <sup>3</sup>	ACGIH
		TWA	5 mg/m <sup>3</sup>	NIOSH REL
Sulfur Dioxide	7446-09-5	STEL	0.25 ppm	ACGIH
		TWA	2 ppm 5 mg/m <sup>3</sup>	NIOSH REL
		STEL	5 ppm 13 mg/m <sup>3</sup>	NIOSH REL
		TWA	5 ppm 13 mg/m <sup>3</sup>	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

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### NALCO® 7408

Skin protection	: Wear suitable protective clothing.
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: clear
Odour	: Pungent
Flash point	: does not flash
pH	: 4.1,(1 %), Method: ASTM E 70
Odour Threshold	: no data available
Melting point/freezing point	: Freezing Point: 1.1 °C
Initial boiling point and boiling range	: 104 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 32 mm Hg, (25 °C), ASTM D 323,
Relative vapour density	: 2.2(Air = 1)
Relative density	: 1.37, (25 °C), ASTM D-1298
Density	: 11.4 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 2.8 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Evolves SO <sub>2</sub> when open to atmosphere. The rate of SO <sub>2</sub> evolution increases
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## SAFETY DATA SHEET

**NALCO® 7408**

with temperature and/or transfer of product.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : Keep away from heat and sources of ignition.

Incompatible materials : Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.  
Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.  
SO<sub>2</sub> may react with vapors from neutralizing amines and may produce a visible cloud of amine salt particles.  
Mild steel  
Aluminium

Hazardous decomposition products : Decomposition products may include the following materials:  
Sulphur oxides  
metal oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes : Health injuries are not known or expected under normal use.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Harmful if swallowed.

Inhalation : May release toxic, irritating and/or corrosive gases.

Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No information available.

Inhalation : No symptoms known or expected.

#### Toxicity

#### Product



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Acute oral toxicity	: Acute toxicity estimate: 1,250 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: Result: Contains an ingredient that can cause asthmatic-like reactions in sulfite-sensitive individuals.
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

#### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): > 100 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Pimephales promelas* (fathead minnow): 382 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

LC50 *Gambusia affinis* (Mosquito fish): 240 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC *Pimephales promelas* (fathead minnow): 250 mg/l  
Exposure time: 96 hrs  
Test substance: Similar Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 728 mg/l  
Exposure time: 48 hrs  
Test substance: Similar Product

LC50 *Daphnia magna* (Water flea): 275 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 *Daphnia magna* (Water flea): 119 mg/l

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Exposure time: 48 hrs  
Test substance: Active Substance

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

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 382 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

LOEC: 500 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 250 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC: 500 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

EC25 / IC25: 277 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

NOEC: 250 mg/l  
Exposure time: 7 Days  
Species: Ceriodaphnia dubia  
Test substance: Product  
Test Type: 3 Brood

### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Chemical Oxygen Demand (COD): 85,000 mg/l

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

## SAFETY DATA SHEET

**NALCO® 7408**

Air : <5%  
Water : 30 - 50%  
Soil : 50 - 70%

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

### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

### Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

### Land transport (DOT)

Proper shipping name : BISULPHITES, AQUEOUS SOLUTION, N.O.S.  
Technical name(s) : SODIUM BISULPHITE  
UN/ID No. : UN 2693  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 12,500 lbs  
RQ Component : SODIUM BISULFITE

### Air transport (IATA)

Proper shipping name : BISULPHITES, AQUEOUS SOLUTION, N.O.S.  
Technical name(s) : SODIUM BISULFITE  
UN/ID No. : UN 2693  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 12,500 lbs

## SAFETY DATA SHEET

**NALCO® 7408**

package)  
RQ Component : SODIUM BISULFITE

### Sea transport (IMDG/IMO)

Proper shipping name : BISULPHITES, AQUEOUS SOLUTION, N.O.S.  
Technical name(s) : SODIUM BISULPHITE  
UN/ID No. : UN 2693  
Transport hazard class(es) : 8  
Packing group : III

## Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.  
  
No substances are subject to TSCA 12(b) export notification requirements.

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

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Bisulfite	7631-90-5	5000	12500

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Corrosive to metals  
Acute toxicity (any route of exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

On the inventory, or in compliance with the inventory

#### Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

## SAFETY DATA SHEET

**NALCO® 7408**

### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

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

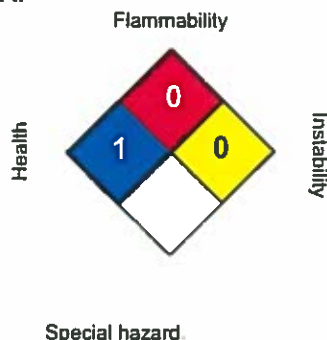
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

### Taiwan Chemical Substance Inventory

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

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 02/14/2019  
Version Number : 2.2  
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.

## **SAFETY DATA SHEET**

**NALCO® 7408**

For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO® BT-3411

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 : 08/01/2014

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Skin corrosion : Category 1A  
Serious eye damage/eye irritation : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.  
**Storage:**  
Store locked up.  
**Disposal:**

## SAFETY DATA SHEET

**NALCO® BT-3411**

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 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. 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.

See toxicological information (Section 11)

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### SECTION 6. ACCIDENTAL RELEASE MEASURES



## SAFETY DATA SHEET

**NALCO® BT-3411**

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not 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 labeled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : not determined

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium 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 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

## SAFETY DATA SHEET

**NALCO® BT-3411**

gloves, safety goggles and protective clothing

- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Light yellow  
Clear
- Odour : None
- Flash point : does not flash
- pH : 13.8, 100 %
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -5.6 °C, ASTM D-1177
- Initial boiling point and boiling range : no data available
- Evaporation rate : similar to water
- 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 : 1.09 (25 °C)
- Density : 9.1 lb/gal
- Water solubility : completely soluble
- Solubility in other solvents : no data available
- Partition coefficient: n-octanol/water : no data available
- Auto-ignition temperature : no data available
- Thermal decomposition : Carbon oxides
- Viscosity, dynamic : 5 mPa.s (22.8 °C)
- Viscosity, kinematic : no data available
- VOC : no data available

### SECTION 10. STABILITY AND REACTIVITY

- Chemical stability : Stable under normal conditions.

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**NALCO® BT-3411**

Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.
Hazardous decomposition products	: Oxides of phosphorus Oxides of sulfur

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
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	: 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

## SAFETY DATA SHEET

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Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Toxicity to fish : no data available  
Toxicity to daphnia and other aquatic invertebrates : no data available  
Toxicity to algae : no data available

#### Persistence and degradability

no data available

#### Mobility

no data available

#### Bioaccumulative potential

no data available

#### Other information

no data available

### SECTION 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002  
Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.  
Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

## SAFETY DATA SHEET

**NALCO® BT-3411**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II  
Reportable Quantity (per package) : 35,390 lbs  
RQ Component : SODIUM HYDROXIDE

### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II  
Reportable Quantity (per package) : 35,390 lbs  
RQ Component : SODIUM HYDROXIDE

### Sea Transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II

## 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	35398

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : 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

## SAFETY DATA SHEET

**NALCO® BT-3411**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS :

TOXIC SUBSTANCES CONTROL ACT (TSCA)

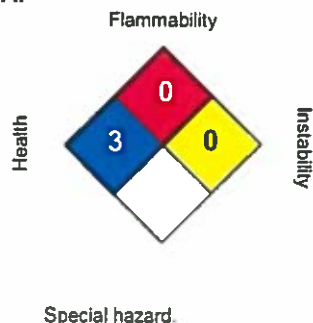
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

### 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 : 08/01/2014  
Version Number : 1.0  
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 MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

**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 : 08/17/2016

**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.  
Ground/bond container and receiving equipment. Take precautionary measures

## SAFETY DATA SHEET

### Tri-ACT™ 1825

against static discharge. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

#### Storage:

Protect product from freezing.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

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. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention.
Protection of first-aiders	: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



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- 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.  
Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx)
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : 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. Do not store near acids. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Protect product from freezing. Connections must be grounded to avoid electrical charges. Amine and sulphite products should not be stored within close proximity or resulting vapors may form visible airborne particles.
- Suitable material : Keep in properly labelled containers.

## SAFETY DATA SHEET

### Tri-ACT™ 1825

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
Morpholine	110-91-8	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m3	NIOSH REL
		STEL	30 ppm 105 mg/m3	NIOSH REL
		TWA	20 ppm 70 mg/m3	OSHA Z1
Diethylethanolamine	100-37-8	TWA	2 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

## SAFETY DATA SHEET

### Tri-ACT™ 1825

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	: FREEZING POINT: -3 °C, ASTM D-1177
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 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 <sup>3</sup> , 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 temperature	: 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

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures. Heat, flames and sparks.

## SAFETY DATA SHEET

Tri-ACT™ 1825

- 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<sub>2</sub> 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.
- Hazardous decomposition products** : Decomposition products may include the following materials:  
Carbon oxides  
nitrogen oxides (NO<sub>x</sub>)

### Section: 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure** : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

- Eyes** : Causes serious eye damage.
- Skin** : Toxic in contact with skin. Causes severe skin burns.
- Ingestion** : Harmful if swallowed. Causes digestive tract burns.
- Inhalation** : May cause 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

#### 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

## SAFETY DATA SHEET

### Tri-ACT™ 1825

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.  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

#### Ecotoxicity

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  
  
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

## SAFETY DATA SHEET

### Tri-ACT™ 1825

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

#### Components

Toxicity to algae : Morpholine  
EC50 : 28 mg/l  
Exposure time: 96 h

## SAFETY DATA SHEET

### Tri-ACT™ 1825

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

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: : D001, D002

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## SAFETY DATA SHEET

Tri-ACT™ 1825

### 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

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

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Cyclohexylamine	108-91-8	10000	22841

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
Cyclohexylamine 108-91-8



## SAFETY DATA SHEET

### Tri-ACT™ 1825

#### 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.

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

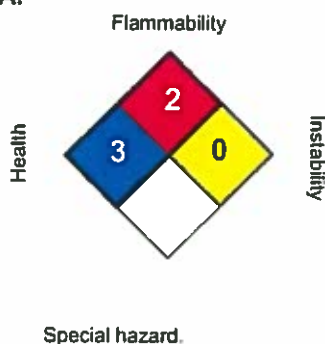
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Section: 16. OTHER INFORMATION

##### NFPA:



##### HMIS III:

HEALTH	3*
FLAMMABILITY	2
PHYSICAL HAZARD	0

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

Revision Date : 08/17/2016  
Version Number : 1.2  
Prepared By : Regulatory Affairs

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.

**MATERIAL SAFETY DATA SHEET****PRODUCT****CAT-FLOC® 8103 PLUS****EMERGENCY TELEPHONE NUMBER****(800) 424-9300 (24 Hours) CHEMTREC****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME :** CAT-FLOC® 8103 PLUS**APPLICATION :** WATER TREATMENT**COMPANY IDENTIFICATION :** ONDEO Nalco Company  
ONDEO Nalco Center  
Naperville, Illinois  
60563-1198**EMERGENCY TELEPHONE NUMBER :** (800) 424-9300 (24 Hours) CHEMTREC**NFPA 704M/HMIS RATING****HEALTH :** 0 / 1 **FLAMMABILITY :** 1 / 1 **REACTIVITY :** 0 / 0 **OTHER :**  
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Based on our hazard evaluation, none of the substances in this product are hazardous.

**3. HAZARDS IDENTIFICATION****\*\*EMERGENCY OVERVIEW\*\*****CAUTION**

May cause irritation with prolonged contact. Toxic to aquatic organisms.

Do not get in eyes, on skin, on clothing. Do not take internally. Wear suitable protective clothing. Keep container tightly closed. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Protect product from freezing.

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve ammonia (NH4) under fire conditions. May evolve HCl under fire conditions.

**PRIMARY ROUTES OF EXPOSURE :**

Eye, Skin

**HUMAN HEALTH HAZARDS - ACUTE :****EYE CONTACT :**

May cause irritation with prolonged contact.

**SKIN CONTACT :**

May cause irritation with prolonged contact.

**INGESTION :**

Not a likely route of exposure. No adverse effects expected.



## MATERIAL SAFETY DATA SHEET

### PRODUCT

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#### INHALATION :

Not a likely route of exposure. No adverse effects expected.

#### SYMPTOMS OF EXPOSURE :

##### Acute :

A review of available data does not identify any symptoms from exposure not previously mentioned.

##### Chronic :

A review of available data does not identify any symptoms from exposure not previously mentioned.

#### AGGRAVATION OF EXISTING CONDITIONS :

A review of available data does not identify any worsening of existing conditions.

## 4. FIRST AID MEASURES

#### EYE CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

#### SKIN CONTACT :

Remove contaminated clothing. Wash off affected area immediately with plenty of water. If symptoms develop, seek medical advice.

#### INGESTION :

Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If symptoms develop, seek medical advice.

#### INHALATION :

Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

#### NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

## 5. FIRE FIGHTING MEASURES

FLASH POINT : > 200 °F / > 93 °C ( )

#### EXTINGUISHING MEDIA :

This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire. Water mist may be used to cool closed containers.

#### FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve ammonia (NH<sub>4</sub>) under fire conditions. May evolve HCl under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.



## MATERIAL SAFETY DATA SHEET

### PRODUCT

**CAT-FLOC® 8103 PLUS**

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(800) 424-9300 (24 Hours) CHEMTREC

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS :

Notify appropriate government, occupational health and safety and environmental authorities. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

### METHODS FOR CLEANING UP :

**SMALL SPILLS:** Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

### ENVIRONMENTAL PRECAUTIONS :

This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

## 7. HANDLING AND STORAGE

### HANDLING :

Do not take internally. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled. Avoid eye and skin contact.

### STORAGE CONDITIONS :

Store separately from oxidizers. Store the containers tightly closed. Protect product from freezing.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OCCUPATIONAL EXPOSURE LIMITS :

This product does not contain any substance that has an established exposure limit.

### ENGINEERING MEASURES :

General ventilation is recommended.

### RESPIRATORY PROTECTION :

Respiratory protection is not normally needed.

### HAND PROTECTION :

Nitrile gloves, PVC gloves

### SKIN PROTECTION :

Wear standard protective clothing.

### EYE PROTECTION :

Wear chemical splash goggles.



## MATERIAL SAFETY DATA SHEET

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#### HYGIENE RECOMMENDATIONS :

Keep an eye wash fountain available. Keep a safety shower available.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE           Viscous liquid

APPEARANCE              Clear Yellow

ODOR                      None

SPECIFIC GRAVITY	1.018 - 1.058 @ 77 °F / 25 °C
DENSITY	8.5 - 8.81 lb/gal
SOLUBILITY IN WATER	Complete
pH (100 %)	5.0 - 8.0
VISCOSITY	< 1,050 cps @ 77 °F / 25 °C
BOILING POINT	> 212 °F / > 100 °C
VAPOR DENSITY	Same as water
VOC CONTENT	0.00 %

### 10. STABILITY AND REACTIVITY

#### STABILITY :

Stable under normal conditions.

#### HAZARDOUS POLYMERIZATION :

Hazardous polymerization will not occur.

#### CONDITIONS TO AVOID :

Freezing temperatures.

#### MATERIALS TO AVOID :

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

#### HAZARDOUS DECOMPOSITION PRODUCTS :

Under fire conditions:           Oxides of carbon, Oxides of nitrogen, May evolve ammonia (NH<sub>4</sub>) under fire conditions., HCl

### 11. TOXICOLOGICAL INFORMATION

The following results are for the polymer.

#### ACUTE ORAL TOXICITY :

Species	LD50	Tested Substance
Rat	25,500 mg/kg	Similar Product
Rating :	Non-Hazardous	

**MATERIAL SAFETY DATA SHEET****PRODUCT****CAT-FLOC® 8103 PLUS****EMERGENCY TELEPHONE NUMBER****(800) 424-9300 (24 Hours) CHEMTREC****ACUTE DERMAL TOXICITY :**

Species LD50  
Rabbit > 20,000 mg/kg  
Rating : Non-Hazardous

Tested Substance  
40% Active Ingredient

**PRIMARY SKIN IRRITATION :**

Draize Score  
1.0 / 8.0  
Rating : Slightly irritating

Tested Substance  
Similar Product

**PRIMARY EYE IRRITATION :**

Draize Score  
8 / 110.0  
Rating : Practically non-irritating

Tested Substance  
Similar Product

**SENSITIZATION :**

This product is not expected to be a sensitizer.

**CARCINOGENICITY :**

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

**12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL EFFECTS :**

The following results are for the product.

**ACUTE FISH RESULTS :**

Species	Exposure	LC50	Tested Substance
Rainbow Trout	96 hrs	0.85 mg/l	Product

Rating : Very toxic

**ACUTE INVERTEBRATE RESULTS :**

Species	Exposure	LC50	EC50	Tested Substance
Daphnia magna	48 hrs	2.06 mg/l		Product

Rating : Toxic

If released into the environment, see CERCLA/SUPERFUND in Section 15.

**13. DISPOSAL CONSIDERATIONS**

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.



## MATERIAL SAFETY DATA SHEET

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As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

### 14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are:

#### LAND TRANSPORT :

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

#### AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

#### MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING  
TRANSPORTATION

### 15. REGULATORY INFORMATION

#### NATIONAL REGULATIONS, USA :

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :

Based on our hazard evaluation, none of the substances in this product are hazardous.

CERCLA/SUPERFUND, 40 CFR 117, 302 :

Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.



## MATERIAL SAFETY DATA SHEET

### PRODUCT

**CAT-FLOC® 8103 PLUS**

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**(800) 424-9300 (24 Hours) CHEMTREC**

#### SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :

This product does not contain substances on the List of Toxic Chemicals.

#### TOXIC SUBSTANCES CONTROL ACT (TSCA) :

The chemical substances in this product are on the TSCA 8(b) Inventory (40 CFR 710).

#### FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR / formerly Sec. 311 :

None of the substances are specifically listed in the regulation.

#### CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :

None of the substances are specifically listed in the regulation.

#### CALIFORNIA PROPOSITION 65 :

This product does not contain substances which require warning under California Proposition 65.

#### MICHIGAN CRITICAL MATERIALS :

None of the substances are specifically listed in the regulation.

#### STATE RIGHT TO KNOW LAWS :

None of the substances are specifically listed in the regulation.

#### NATIONAL REGULATIONS, CANADA :

#### WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

#### WHMIS CLASSIFICATION :

Not considered a WHMIS controlled product.

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :

All substances in this product are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

### 16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

#### REFERENCES





## MATERIAL SAFETY DATA SHEET

### PRODUCT

**CAT-FLOC® 8103 PLUS**

### EMERGENCY TELEPHONE NUMBER

**(800) 424-9300 (24 Hours) CHEMTREC**

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, Co.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight# (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO

Prepared By : Product Safety Department  
Date issued : 01/31/2000  
Replaces : 08/13/1997

## Candice Calhoun

---

**From:** Clift, Taylor M <taylor.m.clift@exxonmobil.com>  
**Sent:** Thursday, August 14, 2025 9:56 AM  
**To:** Candice Calhoun  
**Cc:** Bolton, Heather L  
**Subject:** RE: Application to Renew Permit No. WQ0002029000 (Exxonmobil Oil Corporation) - Notice of Deficiency  
**Attachments:** NOD Response WQ0002029000.pdf; Spanish NORI WQ0002029000.docx

Ms. Calhoun,

Please see the NOD response for the Beaumont Polyethylene Plant TPDES Renewal application. Also attached is the Word document copy of the Spanish NORI. A hard copy was mailed with certified mail number 7022 0410 0002 8654 6296. Please let me know if you have any questions.

Best,

**Taylor Clift, PE**  
Environmental Advisor  
Global Operations & Sustainability

**Exxon Mobil Corporation**  
11440 Highway 90  
Beaumont, TX 77713  
409 269 9875 Tel  
409 937 4628 Mobile  
taylor.m.clift@exxonmobil.com

---

**From:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>  
**Sent:** Wednesday, August 6, 2025 8:27 AM  
**To:** Bolton, Heather L <heather.l.bolton@exxonmobil.com>  
**Cc:** Clift, Taylor M <taylor.m.clift@exxonmobil.com>  
**Subject:** FW: Application to Renew Permit No. WQ0002029000 (Exxonmobil Oil Corporation) - Notice of Deficiency  
**Importance:** High

Ms. Bolton,

I had a typo in your email in the original email so I am forwarding it over.

Regards,



## Candice Courville

License & Permit Specialist  
ARP Team | Water Quality Division  
Texas Commission on Environmental  
Quality  
512-239-4312  
[candice.calhoun@tceq.texas.gov](mailto:candice.calhoun@tceq.texas.gov)

How is our customer service? Fill out our online customer satisfaction survey at  
[www.tceq.texas.gov/customersurvey](http://www.tceq.texas.gov/customersurvey)

---

**From:** Candice Calhoun

**Sent:** Wednesday, August 6, 2025 8:26 AM

**To:** [healthier.l.bolton@exxonmobil.com](mailto:healthier.l.bolton@exxonmobil.com)

**Cc:** [taylor.m.clift@exxonmobil.com](mailto:taylor.m.clift@exxonmobil.com)

**Subject:** Application to Renew Permit No. WQ0002029000 (Exxonmobil Oil Corporation) - Notice of Deficiency

**Importance:** High

Good morning, Ms. Bolton,

The attached Notice of Deficiency (NOD) letter dated August 6, 2025, requests additional information needed to declare the application administratively complete. Please send complete response no later than August 20, 2025.

Please let me know if you have any questions.

Regards,



## Candice Courville

License & Permit Specialist  
ARP Team | Water Quality Division  
Texas Commission on Environmental  
Quality  
512-239-4312  
[candice.calhoun@tceq.texas.gov](mailto:candice.calhoun@tceq.texas.gov)

How is our customer service? Fill out our online customer satisfaction survey at  
[www.tceq.texas.gov/customersurvey](http://www.tceq.texas.gov/customersurvey)

ExxonMobil  
Product Solutions Company  
PO Box 2295  
Beaumont, Texas 77704-2295



August 13, 2025

Ms. Candice Calhoun  
Water Quality Division (MC-148)  
Applications Review and Processing Team  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087  
CERTIFIED MAIL NO. 7022 0410 0002 8654 6296  
RETURN RECEIPT REQUESTED

**Re: ExxonMobil Oil Corporation (CN600920748)  
Beaumont Polyethylene Plant (RN100211903)  
TPDES Permit No. WQ0002029000 (EPA ID TX0068934)  
Renewal without changes  
Response to NOD Letter Dated August 6, 2025**

Dear Ms. Calhoun:

ExxonMobil Oil Corporation is in receipt of your August 6, 2025, letter, which requested additional information for the TPDES renewal application for the ExxonMobil Beaumont Polyethylene Plant that was submitted on August 4, 2025. Below are responses to the requested information.

TCEQ Item 1

Our records indicate that an original paper copy of the application was not received. The original paper copy and e-copy of the application are both required. Please submit the original paper copy of the application to Texas Commission on Environmental Quality, Water Quality Division, Application Review and Processing Team (MC 148), P.O. Box 13087, Austin, Texas 78711-3087.

Response to Item 1

A paper copy was submitted and delivered on August 8, 2025. Please reference certified mail number 7022 0410 0002 8654 7309.

TCEQ Item 2

Item 13 – Signature Page: The title of the individual who signed does not meet the requirements and proof of signatory authority being delegated was not provided. For corporations, the signee must be at least the level of vice president. Please provide an updated signature page, or provide proof that signatory authority was delegated.

Response to Item 2

The Delegation of Authority is attached.

TCEQ Item 3

USGS Topographic Map: The USGS map provided did not have the applicant's property boundaries delineated and labeled. If the applicant's property boundary is one in the same with the facility boundaries, please label it as such.

Response to Item 3

The USGS Topographic Map has been updated with a new label identifying that the property boundaries match the facility boundaries.

TCEQ Item 4

The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

Response to Item 4

No changes are needed in the NORI text.

TCEQ Item 5

The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.


August 13, 2025  
TPDES Application NOD Response  
ExxonMobil Beaumont Polyethylene Plant

Response to Item 5

The translated Spanish NORI is attached and has also been submitted via email as a Microsoft Word document.

If you have any questions about this submission, please contact Taylor Clift at (409) 269-9875 or via email at [Beaumont.Env.Admin@exxonmobil.com](mailto:Beaumont.Env.Admin@exxonmobil.com).

Sincerely,



Heather Bolton  
Multimedia SLS

Enclosure(s)

Delegation of Authority  
USGS Topographic Map  
Spanish NORI WQ0002029000

**INCUMBENT POWER OF ATTORNEY  
EXXONMOBIL OIL CORPORATION**

**EXXONMOBIL OIL CORPORATION**, a New York corporation, having an office in Spring, Texas, acting by and through J. J. Matsushita, Agent and Attorney-in-Fact for ExxonMobil Oil Corporation and Senior Vice President of ExxonMobil Product Solutions Company, does hereby nominate, constitute, and appoint each incumbent of the following positions in ExxonMobil Product Solutions Company (hereinafter called "Company"), a division of Exxon Mobil Corporation:

<b>Company/Sites</b>	<b>Position</b>
ExxonMobil Oil Corporation	Americas Regional Director Vice President Operations
Beaumont Complex (BMCX) -Beaumont Refinery (BMRF) -Beaumont Chemical Plant (BMCP)	Manager (BMCX) Process Manager (BMRF/BMCP) Technical Manager (BMCX) Mechanical Manager (BMCX) SSHE Manager (BMCX)
Beaumont Polyethylene Plant (BPEP)	Manager Process Manager
Joliet Refinery	Refinery Manager Process Manager Technical Manager Mechanical Manager SSHE Manager
Baytown Olefins Plant	Plant Manager
Mont Belvieu Plastics Plant	Plant Manager

as Agent and Attorney-in-Fact of ExxonMobil Oil Corporation for purposes of executing and delivering instruments and documents as more particularly described below, does hereby grant, delegate, and invest each of said incumbents with power and authority to execute and deliver in the name and on behalf of ExxonMobil Oil Corporation instruments and documents of the following types pertaining to the conduct of business, operations, and affairs of the above-named Sites:

- (i) ALL permit applications, reports, instruments, and documents of a similar nature, and all other information required or requested by a regulatory agency withing the jurisdiction of the United States, whether federal, state, or promulgated by local government, to the extent execution of such document by said incumbents is otherwise authorized or allowed by applicable law or regulation; and

- (ii) All other instruments and documents EXCEPT the following:
- (1) any mortgage, assignment, conveyance or release of the real property or equipment valued at more than Five Hundred Thousand Dollars (\$500,000) by any taxing authority; or
  - (2) any instrument authorizing, permitting, or evidencing the borrowing of money from any person or entity; or
  - (3) any instrument authorizing or permitting the issuance of corporate bonds of indebtedness (secured or unsecured), or capital share of ExxonMobil Oil Corporation, or effecting any changed in the capital structure of ExxonMobil Oil Corporation; or
  - (4), any instrument delegating the power of authority conferred herein to execute and deliver instruments.

Each incumbent of said position in said Company may exercise the power and authority herein granted, delegated, and invested, in any particular and appropriate transaction or matter, as an Agent and Attorney-in-Fact of ExxonMobil Oil Corporation. Notwithstanding the forgoing, in the case of the Baytown Olefins Plant Manager, the power of authority herein granted shall only apply to the matters relating to the heritage Houston Chemical Plant and in the case of the Mont Belvieu Plastics Plant Manager, the power of authority herein granted shall only apply to the matters relating to the tract of land in Liberty County, Texas on Highway 146 approximately one mile or less to the northeast of the Mont Belvieu Plastics Plant. Any action taken as authorized under this Incumbent Power of Attorney shall be an act of ExxonMobil Oil Corporation and binding upon it.

In the event there is a subsequent change in the names or descriptions of the above positions and/or sites, the preceding authority shall continue in full force and effect except that the same shall be deemed to refer to the above positions and/or sites as so changed in name or description.

<<<<<<This section intentionally left blank>>>>>>



This Incumbent Power of Attorney shall be effective January 1, 2024, through February 28, 2027, unless duly revoked, in whole or in part; provided, however, that all acts lawfully done or performed pursuant to this Power of Attorney by each incumbent of the positions listed herein, prior to such revocation shall be, and the same hereby are, ratified and confirmed.

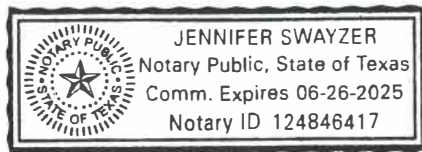
APPROVED AND EXECUTED this 30 day of January, 2024.

Exxon Mobil Corporation

By: J. J. Matsushita  
J. J. Matsushita, Agent and Attorney-in-Fact

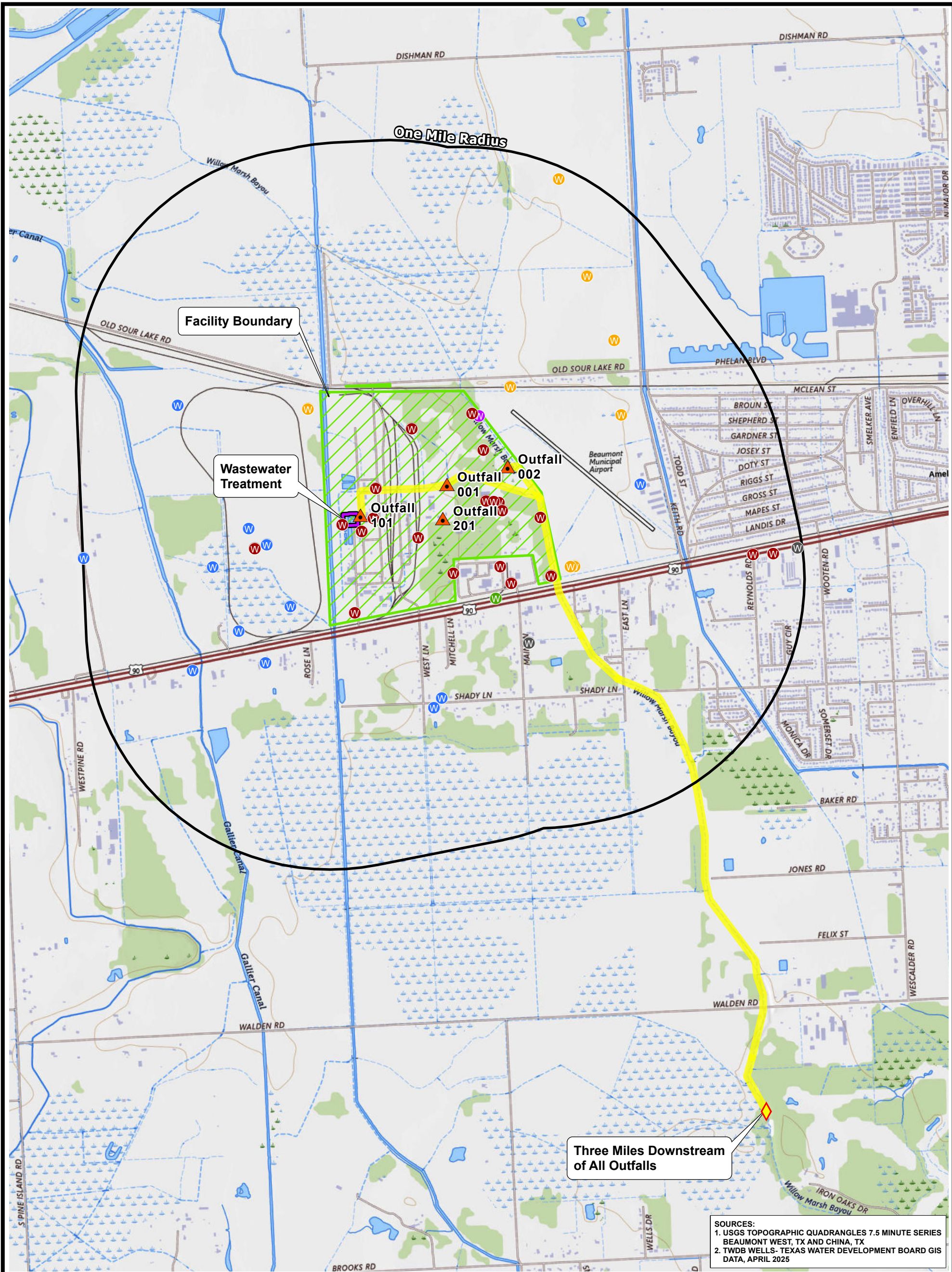
STATE OF TEXAS  
COUNTY OF HARRIS  
UNITED STATES OF AMERICA

Sworn to and subscribed to me at Spring, Texas, U.S.A. on the 30 day of January, 2024.



Jennifer Swayzer  
Notary Public, State of Texas





Beaumont Polyethylene Plant Facility Boundary

Wastewater Treatment Plant

One Mile Radius

Outfall Location

Discharge Route

Downstream Markers

Domestic / Public Supply

Environmental Soil Boring

Industrial / Monitor

Irrigation

Plugged or Destroyed / Unused

Rig Supply

0

1,000

2,000

FEET

1" = 2,000 FEET

1:24,000

EXXONMOBIL OIL CORPORATION

BEAUMONT POLYETHYLENE PLANT

USGS MAP

DRAWN BY: L WILSON

CHECKED BY: T CLIFT

APPROVED BY: T CLIFT

DATE: August 2025

SCALE: AS NOTED

DATE PRINTED: 8/6/2025

PROJ. NO. TPDES 2025

FILE NO. USGS

sitemap

your mapping professional

J:\P\j\ExxonMobil BPE\TPDES 2025\BPEP GIS.aprx



# 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.** ExxonMobil Oil Corporation, P.O. Box 2295, Beaumont, Texas 77704, que fabrica gránulos y resinas de polietileno de baja densidad, gránulos y resinas de polietileno de alta densidad, y catalizadores, todos enviados por vagones tolva de ferrocarril, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) la renovación del Permiso No. WQ0002029000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) (ID de la EPA No. TX0068934) para autorizar la descarga de aguas residuales tratadas y aguas pluviales con un caudal variable e intermitente. La instalación está ubicada en 11440 U.S. Highway 90, cerca de la ciudad de Beaumont, en el Condado de Jefferson, Texas 77713. La ruta de descarga es desde el sitio de la planta a través del Emisario 001 hacia una zanja sin nombre; luego hacia una cuenca de retención; luego hacia Willow Marsh Bayou; luego hacia Hillebrandt Bayou; y a través del Emisario 002 hacia Willow Marsh Bayou; luego hacia Hillebrandt Bayou. TCEQ recibió esta solicitud el 4 de agosto de 2025. La solicitud del permiso estará disponible para su consulta y copia en la Biblioteca del Centro de Beaumont, 801 Pearl Street, Beaumont, en el Condado de Jefferson, Texas, antes de la fecha en que se publique este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles 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=-94.229,30.06925&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](http://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.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.229,30.06925&level=18>

Fecha de emisión: *[Date notice issued]*