



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 de la solicitud (en lenguaje sencillo)
 - Inglés
 - Idioma alternativo (español)
2. Primer aviso (NORI- Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
 - Inglés
 - Idioma alternativo (español)
3. Materiales de la solicitud



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary 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 as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their 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 the applicant 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.

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.

Mitsubishi Chemical America Inc. (CN605866037) operates MCA La Porte Site (RN101049518), a resin manufacturing facility. The facility is located at 12220 Strang Road, in La Porte, Harris County, Texas 77571-9740. Mitsubishi Chemical America Inc. is applying to renew the Wastewater Permit (WQ0005265000) for the site. No changes to limits or operating conditions have been requested in the application.

Discharges from the facility are expected to contain copper, dissolved solids, residual chlorine, sulfate, suspended solids, and zinc. Wastewaters from cooling tower blowdown, reactor unit cooling water, water treatment wastes, and neutralization tank wastewater will be treated by various wastewater-dependent processes to achieve appropriate pollutant levels and wastewater conditions before introduction to a common tank for 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.

Mitsubishi Chemical America Inc. (CN605866037) opera MCA La Porte Site RN101049518, una planta de fabricación de resina. La instalación está ubicada en 12220 Strang Road, en La Porte, Condado de Condado de Harris, Texas 77571-9740. Mitsubishi Chemical America Inc está solicitando la renovación del Permiso de Aguas Residuales (WQ0005265000) para el sitio. No se han solicitado cambios en los límites ni en las condiciones de funcionamiento de la solicitud. <<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan cobre, sólidos disueltos, cloro residual, sulfato, sólidos suspendidos y zinc. Las aguas residuales de la purga de la torre de enfriamiento, el agua de enfriamiento de la unidad del reactor, los desechos del tratamiento de agua y las aguas residuales del tanque de neutralización. estará tratado por mediante diversos procesos en función de las aguas residuales para alcanzar los niveles de contaminantes y las condiciones de las aguas residuales adecuados antes de su introducción en un tanque común para su vertido..

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0005265000

APPLICATION. Mitsubishi Chemical America, Inc., 1999 Bryan Street, Suite 900, Dallas, Texas 75201, which owns a resin manufacturing plant, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005265000 (EPA I.D. No. TX0138941) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 288,000 gallons per day. The facility is located at 12220 Strang Road, La Porte, in Harris County, Texas 77571. The discharge route is from the plant site via Outfall 001 directly to San Jacinto Bay. TCEQ received this application on April 12, 2024. The permit application will be available for viewing and copying at La Porte Library, 600 South Broadway Street, La Porte, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.043055,29.700833&level=18>

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public

interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

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

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

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

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

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

Further information may also be obtained from Mitsubishi Chemical America, Inc. at the address stated above or by calling Ms. Laura Burnett, Senior Environmental Engineer, at 281-842-5039.

Issuance Date: June 19, 2024

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. WQ0005265000

SOLICITUD. Mitsubishi Chemical America, Inc., 1999 Bryan Street, Suite 900, Dallas, Texas 75201 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0005265000 (EPA I.D. No. TX0138941) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 288,000 galones por día. La planta está ubicada 12220 Strang Road, La Porte, en el Condado de Harris, Texas. La ruta de descarga es del sitio de la planta a la Bahía de San Jacinto. La TCEQ recibió esta solicitud el 12 de abril de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca La Porte, 600 South Broadway Street, La Porte, en el condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications> Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.043055,29.700833&level=18>

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.

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

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

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

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

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

También se puede obtener información adicional del Mitsubishi Chemical America, Inc. a la dirección indicada arriba o llamando a Laura Burnett al 281-842-5039.

Fecha de emission: 19 de junio de 2024

Erwin Madrid

From: Julie Kafcas <jkafcas@spiritenv.com>
Sent: Thursday, May 9, 2024 3:07 PM
To: Erwin Madrid; laura.burnett@mcgc.com
Subject: RE: Application for Proposed Permit No. WQ0005265000 - Notice of Deficiency Letter
Attachments: wq0005265000-nod1.pdf; DuPont Ground Lease.pdf; Notice of Effective Date of Assignment of Agreement at La Porte Site.pdf; Certificate of Merger_Provided by Legal Dept.pdf; MCA La Porte - Discharge Permit Renewal Spanish NORI.docx

Hello Erwin,

We have prepared the items for this submittal via email as requested in the NOD dated 4/25/2024 (attached for reference).

Please find the following attached:

- NOD Item #1 Response – DuPont Ground Lease and Notice of Effective Date of Assignment of Agreement at La Porte Site. These lease documents provide lease information and are not labeled as “Confidential”.
- NOD Item #1 Response – Certificate of Merger. This document is to address the item regarding the lease agreement containing the “Noltex” name. This provides evidence that the facility operates under Mitsubishi Chemical America, Inc. and assumes all liabilities of Noltex under the merger, which includes the terms of the lease with Du Pont. The lease term is for 40 years, with a 40-year optional renewal term, and was not required to be revised since the merger.
- NOD Item #2 Response – The NORI information that was provided in the NOD item has been reviewed and does not contain any errors.
- NOD Item #3 Response – Attached is the Word document with the NORI Spanish translation.

Please review and let us know if these responses are sufficient to address all items in the NOD or if you require any additional documentation.

Thank you,

Julie Kafcas, CPESC

Senior Project Manager

jkafcas@spiritenv.com

DIRECT 720-500-3719

MOBILE 720-607-4263



From: Erwin Madrid <Erwin.Madrid@tceq.texas.gov>

Sent: Thursday, April 25, 2024 3:33 PM

To: laura.burnett@mcgc.com

Cc: Julie Kafcas <jkafcas@spiritenv.com>

Subject: Application for Proposed Permit No. WQ0005265000 - Notice of Deficiency Letter

Importance: High

Dear applicant,

The attached Notice of Deficiency letter sent on **April 25, 2024**, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by **May 9, 2024**.

Regards,

Erwin Madrid

Team Lead

ARP Team | Water Quality Division

512-239-2191

Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 25, 2024

Ms. Laura Burnett
Senior Environmental Engineer
Mitsubishi Chemical America, Inc.
12220 Strang Road
La Porte, Texas 77571

RE: Application to Renew Permit No.: WQ0005265000 (EPA I.D. No. TX0138941)
Applicant Name: Mitsubishi Chemical America, Inc. (CN605866037)
Site Name: MCA La Porte Site (RN101049518)
Type of Application: Renewal without changes

VIA EMAIL

Dear Ms. Burnett:

We have received the application for the above referenced permit, and it is currently under review. Your attention to the following item(s) are requested before we can declare the application administratively complete. Please submit responses to the following items via email.

1. Section 10.F on page 9 of the Industrial Administrative Report: The lease that was provided is insufficient. The lease agreement appears to be between the landowner "E.I. Dupont de Nemours and Company" and "Noltex L.L.C.". Please provide a current lease agreement between "E.I. Dupont de Nemours and Company" and "Mitsubishi Chemical America, Inc." The lease agreement must contain a term for at least the term of the permit, include an option to renew the term, identify the number of acres, identify the property by legal description of map, be signed by both parties, and authorize the applicant to use the land for the wastewater treatment facility.

Additionally, the lease agreement cannot be listed as "CONFIDENTIAL" within the permit application. If there is sensitive information, please redact the information and only provide the required lease components.

2. 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.

APPLICATION. Mitsubishi Chemical America, Inc., 1999 Bryan Street, Suite 900, Dallas, Texas 75201, which own(s) a resin manufacturing plant, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005265000 (EPA I.D. No. TX0138941) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 288,000 gallons per day. The facility is located at 12220 Strang Road, La Porte, in Harris County, Texas 77571. The discharge route is from the plant site via Outfall 001 directly to San Jacinto Bay. TCEQ received this application on April 12, 2024. The permit application will be available for viewing and copying at La Porte Library, 600 South Broadway Street, La Porte, in Harris County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.043055,29.700833&level=18>

3. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Please submit the complete response, addressed to my attention by May 9, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-2191 or by email at erwin.madrid@tceq.texas.gov.

Sincerely,



Erwin Madrid
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

EM

Enclosure(s)

cc: Ms. Julie Kafcas, Senior Project Manager, Spirit Environmental, 20465 State Highway 249, Suite 300, Houston, Texas 77070

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. Mitsubishi Chemical America, Inc., 1999 Bryan Street, Suite 900, Dallas, Texas 75201 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0005265000 (EPA I.D. No. TX0138941) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 288,000 galones por día. La planta está ubicada 12220 Strang Road, La Porte, en el Condado de Harris, Texas. La ruta de descarga es del sitio de la planta a la Bahía de San Jacinto. La TCEQ recibió esta solicitud el 12 de abril de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca La Porte, 600 South Broadway Street, La Porte, en el condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.043055,29.700833&level=18>

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la

solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO

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

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

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

agua que se hayan presentado durante el período de comentarios. . *[For renewal applications that **do not** include a major amendment, include the following sentence:]* **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 de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

También se puede obtener información adicional del Mitsubishi Chemical America, Inc. a la dirección indicada arriba o llamando a Laura Burnett al 281-842-5039.

Fecha de emission _____ *[Date notice issued]*

GROUND LEASE

THIS GROUND LEASE, (the "Lease") entered into this 12th day of August, 1994, is by and between E. I. DU PONT DE NEMOURS AND COMPANY, a Delaware corporation, having its principal office and place of business at 1007 Market Street, Wilmington, Delaware 19898 ("DUPONT"), and NOLTEX L.L.C., a Limited Liability Company, having its principal office and place of business at 400 North St. Paul, Dallas, Texas 75201 ("TENANT").

W I T N E S S E T H :

WHEREAS, DUPONT is the owner of a tract of land situated in the County of Harris, State of Texas, commonly known as the LaPorte Plant; and

WHEREAS, TENANT is purchasing certain assets contained within a portion of said land pursuant to an Asset Purchase Agreement executed between DUPONT and THE NIPPON SYNTHETIC CHEMICAL INDUSTRY CO., LTD. ("NIPPON GOHSEI") dated August 12, 1994 (the "Agreement"), which Agreement has been assigned to TENANT; and

WHEREAS, it is the intent of the parties hereto that DUPONT shall lease a portion of said land to TENANT upon and subject to the conditions and limitations hereinafter expressed; and

NOW, THEREFORE, the parties hereto, intending to be legally bound, agree as follows:

SECTION 1. PREMISES

A. PREMISES LEASED.

DUPONT does hereby demise, lease, and let unto TENANT and TENANT does hereby demise, lease and take from DUPONT, for the term and upon the covenants, terms and conditions hereinafter set forth, that certain parcel or tract of land situated in the County of Harris, State of Texas, and being more particularly shown on Exhibit "A", attached hereto and made a part hereof, describing the leased premises ("LEASED PREMISES") and the appurtenances (the "Appurtenances") more particularly described in Exhibit "B", attached hereto and made a part hereof. The term for the Appurtenances shall be for the term of this Lease except as otherwise provided herein.

The LEASED PREMISES and Appurtenances are subject to:

(1) all matters of record and any state of facts that is apparent from the Survey dated April, 1994 and legal description by H. Carlos Smith attached hereto as Exhibit "A" (the "SURVEY");

(2) zoning laws, ordinances, resolutions, and regulations of all boards, bureaus, or commissions and bodies of any municipal, county, state or federal sovereign now or hereafter having or acquiring jurisdiction of the afore-described property and the use and enjoyments thereof;

(3) the condition and state of repair of the afore-described property as the same may be on the date first above written;

(4) all taxes, assessments, water meter and water charges, and sewer rents, if any, fixed or not fixed commencing as of the date of this Lease (the "Closing Date");

(5) Those reservations by DUPONT as are more particularly described in Section 2 below.

DUPONT will cooperate in TENANT'S efforts to obtain any and all licenses, permits, or certificates needed or required for the parties respective interests or use of the

LEASED PREMISES.

The LEASED PREMISES and Appurtenances are hereinafter referred to as the "LEASED PROPERTY".

B. IMPROVEMENTS

Notwithstanding anything to the contrary contained herein, TENANT shall be the owner and record title owner for all purposes of the Buildings, Fixtures, and Improvements and other assets described on Exhibit E, attached hereto and incorporated herein as well as all improvements subsequently constructed by TENANT (the "Improvements") subject to Section 13 of this Lease.

SECTION 2. RESERVED RIGHTS AND PROPERTY.

(a) DUPONT reserves those rights within the LEASED PREMISES that are more particularly described in Exhibit "C", attached hereto and made a part hereof. All rights reserved hereunder shall be for DUPONT and shall not be assigned in whole or in part without the consent of TENANT which consent shall not be unreasonably withheld.

(b) DUPONT retains the ownership of the property and improvements as set forth on Exhibit F attached hereto and made a part hereof.

SECTION 3. CONTINGENCIES.

The following contingency is provided to TENANT during the term of this Lease.

Until December 31, 1996 TENANT shall have an option to proceed with the study and construction of a new permitted Outfall and related drainage system (the "OUTFALL") along ways summarily shown on Exhibit G. Much of the design and detail work for the OUTFALL has not been completed as of the date of this Lease. The parties agree to continue discussions around this issue within the following framework:

1. DUPONT would stop using Section A as shown on Exhibit G and turn it over to TENANT for its use;

2. Section B as shown on Exhibit G needs to be studied to determine whether it can be made available for TENANT'S use;

3. DUPONT will grant a right of way to the bay along Section C as shown on Exhibit G in a location to be determined. If TENANT routes such right of way across the lands of Harris County, TENANT is responsible for obtaining the necessary easement from Harris County:

4. The OUTFALL from a point to be determined in Section B and through the length of Section C to the Bay shall meet the following design standards, at a minimum;

- a) Double walled pipeline to prevent leakage.
- b) Located adjacent to or in the 004 outfall-exact location to be determined.
- c) Leak detection devices must be utilized.

5. A civil engineering study needs to be completed to determine how to design the OUTFALL and separate DUPONT'S and TENANT'S stormwater runoff;

6. TENANT shall pay all costs related to the design and construction of the OUTFALL, including but not limited to the costs of the engineering studies, installation of the OUTFALL, permitting the Outfall, and any costs incurred by DUPONT outside of the LEASED PREMISES to ensure separation of stormwater runoff between the LEASED PREMISES and DUPONT'S LaPorte Plant.

TENANT must notify DUPONT not later than December 31, 1996 of TENANT'S decision to exercise its option and to proceed with the design and construction of the OUTFALL. Such design and construction must be completed within twenty-four (24) months of notification of TENANT'S decision to exercise this option. Upon exercise, such right will be added to Exhibit "B".

SECTION 4. RELOCATION.

Any rights that may be granted pursuant to this

Lease excluding the boundary lines of the LEASED PREMISES, may from time to time be moved and relocated by DUPONT, by DUPONT providing the TENANT with at least sixty (60) days' written notice of the proposed move and TENANT consenting to the move. Such consent to any move shall not be unreasonably withheld by TENANT. The cost of any such movement or relocation of a right shall be borne by DUPONT.

SECTION 5. CONSTRUCTION OF FACILITIES.

(a) During the term of this Lease, TENANT agrees that any improvements that may be erected on the LEASED PROPERTY by TENANT, including, but not limited to, all plumbing, electrical, heating, air-conditioning and ventilation equipment and systems, and all other equipment, will be installed, operated, and maintained in accordance with the law and with the regulations and requirements of any and all governmental authorities, agencies, or departments, having jurisdiction thereof, without cost or expense to DUPONT. All improvements constructed by TENANT or for the TENANT during the term of this Lease shall be owned by TENANT. TENANT shall take all reasonable actions to provide that any improvements constructed hereunder shall not materially interfere with DUPONT'S use and enjoyment of its owned facilities for chemical manufacturing or any other rights reserved by DUPONT under this Lease. During the term of this Lease, DUPONT shall take all reasonable actions to provide that any improvements constructed by DUPONT or for DUPONT after the date of this Lease within fifty (50) feet of the southern and western boundaries, within one hundred fifty (150) feet of the eastern boundary, and between the southern side of Strang Road and the northern boundary of the LEASED PREMISES shall not materially interfere with TENANT'S use and enjoyment of the LEASED PREMISES or any other rights of TENANT under this Lease.

(b) If, at any time during the term of this Lease, any

liens or claims of mechanics, laborers, or material men shall be filed against the LEASED PROPERTY, or any part or parts thereof, for any work, labor, or materials furnished, alleged to have been furnished or to be furnished pursuant to the written agreement by TENANT or any person holding thereunder, TENANT, within thirty (30) days (or lesser time if the LEASED PROPERTY is threatened with sale or foreclosure) after the date TENANT receives notice, of the filing or recording of any such lien from DUPONT or any other party, or the filing or recording of any notice of intention to file a lien or claim of lien, shall cause the same to be discharged by payment, bond, or otherwise; or at the option of TENANT, TENANT shall deposit, in trust, with DUPONT or with a title company licensed to do business in the State of Texas, a sum of money equal to the amount of such recorded lien, plus ten percent (10%) thereof, to be applied:

(i) To such portion of the amount, if any, as may be determined to be due and owing to the lienor in a final judgment of a court of competent jurisdiction, when and if such final judgment is no longer subject to appeal, or

(ii) To the payment to the lienor of all or a portion of said sum, if any, provided written notice shall be sent by TENANT expressly authorizing such payment.

(c) In the event that TENANT contests any lien or claim, TENANT shall prosecute the contest with reasonable diligence, and TENANT shall at all times effectually stay or prevent any official or judicial sale of the LEASED PROPERTY and TENANT shall pay or otherwise satisfy any final judgment (unless TENANT shall appeal same, in which event the last appeal shall be the determining factor) which may be entered against it and thereafter promptly procure and record satisfaction of the release of the lien. Subject to TENANT'S rights as set forth in this Lease, if TENANT shall ultimately fail to procure a discharge of any such lien, DUPONT after at least thirty (30) days' written notice to TENANT (or lesser time if the LEASED PROPERTY is threatened with sale or

foreclosure), may procure the discharge of such lien by payment or otherwise, and all costs and expenses which DUPONT may reasonably sustain thereby shall be paid by TENANT as additional rent under the provisions of this Lease. In the event that any action shall be brought against DUPONT to enforce any such lien, and provided TENANT may exercise all of its rights set forth in this Lease, and provided further that TENANT shall have received written notice of such action and an opportunity to defend the same, TENANT shall pay any judgment that may be entered against DUPONT, and, in addition thereto, shall pay all costs and expenses that may be reasonably incurred by DUPONT in the defense of any such action, provided such judgment shall be final and no longer subject to appeal.

(d) The requirements provided in Section 5 herein above shall also apply to any construction pursuant to Section 3 "CONTINGENCIES" or such activities as granted in Exhibit "B".

(e) DUPONT agrees that TENANT may construct any type of facilities or make any type of improvements which are consistent with the use allowed herein pursuant to Section 9. Any plans for construction or expansion must be submitted for review by DUPONT prior to their implementation. All plans for excavation of any kind must be reviewed by DUPONT prior to commencement to ensure that any new excavation or pipeline is recorded in the LaPorte Plant excavation records and does not interfere with recorded preexisting structures or uses. DUPONT shall notify TENANT in a timely manner if such plans for excavation might interfere with any recorded pre-existing structures or uses. All such plans for construction and/or expansion and the use of the LEASED PROPERTY must comply with applicable laws, rules, and regulations.

SECTION 6. TERM.

The initial term (the "Initial Term") of this Lease shall be for a period of forty (40) years commencing on

August 12, 1994 and terminating on August 11, 2034, provided, however, this Lease shall automatically be extended for a period of forty (40) years (the "Renewal Period") unless TENANT or any Registered Mortgagee (as hereinafter defined in Section 31) provides DUPONT with written notice of its intent not to extend this Lease at least six (6) months prior to the expiration of the Initial Term. During the Renewal Period, TENANT or any Registered Mortgagee may terminate the forty (40) year term at any time upon one (1) year's prior written notice to DUPONT. Upon expiration of the Renewal Period, this Lease shall continue unless TENANT, or any Registered Mortgagee, gives notice not to continue this Lease no later than six (6) months prior to the expiration of the Renewal Period. Thereafter, this Lease shall continue unless terminated by either party upon not less than two (2) years' prior written notice.

Any future interests created or contemplated by this Lease which are determined to be subject to the Rule Against Perpetuities shall, if they have not theretofore vested, be extinguished whenever twenty-one (21) years less one day shall have elapsed after the death of the survivor of Queen Elizabeth II of the House of Windsor, England, and Phillip Mountbatten, Prince Phillip, Duke of Edinburgh, and their children and grandchildren who are living at the date of the execution of this Lease.

SECTION 7. RENT.

TENANT shall pay to DUPONT as rent for the LEASED PROPERTY the sum of \$3,500.00 per acre per year with such sum being escalated thereafter in accordance with a formula contained in Exhibit "D" of this Lease. DUPONT and TENANT agree that the LEASED PREMISES consists of 14.334 acres for the purposes of the rental calculation provided herein. If requested by either party in writing no later than five (5) months prior to the expiration of the initial forty (40) year

period, the parties will review the annual rental amount and escalation formula and adjust either or both, if necessary, to reflect then current rental conditions, but if the parties cannot agree within four (4) months after the request by either party, they shall appoint an independent expert to decide the matter whose decision shall be binding upon the Parties.

The independent expert chosen pursuant to this section shall be an MAI appraiser, or the then equivalent valuation expert, and have at least ten (10) years of experience evaluating industrial property in the Harris County, Texas area. The fees and expenses of the independent expert shall be split equally. The final determination of the renewal rental rate and escalation formula shall be binding on DUPONT and TENANT.

As used in this Lease, the term "current rental conditions" shall mean the effective market rental rate for the LEASED PREMISES as to which such rate is being determined. Such rate shall be established by averaging the annual rental rates (the "Comparable Rate") then being paid under leases then being entered into in the LaPorte industrial area of Harris County, Texas for property comparable to the property for which the current rental conditions are being determined ("Comparable Property") taking into consideration all pertinent factors.

Rental shall be prorated for the "stub" period (from the Closing Date until December 31, 1994) and shall be payable at Closing, as defined in the Agreement. Thereafter, the rent shall be due in lump sum in advance semiannually on January 1 and July 1 at the address herein contained or at such other place or places as DUPONT shall from time to time give TENANT written notice at least thirty (30) days in advance.

SECTION 8. TAXES AND ASSESSMENTS.

(a) Commencing with the term hereof and ending with the expiration or earlier termination of this Lease, TENANT shall reimburse DUPONT for all real estate taxes and any and all assessments, including special assessments, upon the LEASED PROPERTY, and any tax that may be levied, assessed or imposed by the State of Texas or any political or taxing subdivision thereof, and any payment that may be made by DUPONT in lieu of taxes pursuant to any agreement with the State of Texas or any political or taxing subdivision thereof, upon or measured by the land, buildings or other improvements, land use, rents hereunder, or the income attributable to any such or which are or may become a lien upon, the LEASED PROPERTY, and all other governmental charges levied against LEASED PROPERTY which becomes due and payable during the term hereof, other than Federal, State, or local income or franchise taxes. TENANT'S obligation to pay or reimburse DUPONT for taxes, special assessments and other impositions or contractual payments to taxing authorities shall be contingent upon and subject to the following provisions and conditions:

(i) TENANT may take the benefit of the provisions of any statute or ordinance permitting any special assessment to be paid over a period of time, and TENANT shall be obligated to pay only the installment of such special assessments as shall become due and payable during the term of this Lease and as provided in Section 8(a)(ii) below. Subject to Section 8(a)(ii) any installment falling due after the expiration or termination of the term hereof shall be payable by DUPONT, even though such unpaid installments shall constitute a lien or liens until paid.

(ii) TENANT shall pay or reimburse DUPONT for its prorata share of taxes, special assessments, other impositions or contractual payments to taxing authorities or installments thereof, and any charges referred to in Section 1A(4) attributable to the LEASED PROPERTY, which become due and payable during the years in which this Lease commences

and ceases, such prorata share to be determined on the basis which the number of months of the then current tax year for which TENANT is to pay rent shall bear to the entire number of months in said tax year. DUPONT will provide TENANT with the applicable supporting documents used in determining TENANT'S pro-rata share of taxes, assessments or charges.

(iii) TENANT shall pay or reimburse DUPONT for taxes, assessments and other installments, or contractual payments to taxing authorities, or impositions on the LaPorte Plant or the LEASED PREMISES apportioned by the relationship that the area of the LEASED PREMISES bears to the entire LaPorte Site exclusive of any taxable improvements. In calculating the taxes owed by TENANT pursuant to this Section, TENANT shall be entitled to the benefit of all tax abatement agreements, credits, rebates, orders, ordinances, or other reductions specific to the LEASED PREMISES, and TENANT shall also be entitled to the pro-rata benefit of all tax abatement agreements, credits, rebates, orders, ordinances or other reductions granted to the DUPONT LaPorte Plant generally, including without limitation, the Industrial District Agreement effective January 1, 1994 between the City of LaPorte, Texas and DUPONT. Provided however, in no event shall TENANT be entitled to the benefit of any tax abatement agreements, credits, rebates, orders, ordinances, or other reductions granted to DUPONT with respect to the DUPONT LaPorte Plant after the date of this Lease which results from any investment, improvements, or installations, or other actions taken by DUPONT.

(b) Except if contested as hereinafter provided, TENANT, upon due and reasonable notice by DUPONT or from the taxing authority, shall pay each tax, assessment, or installment thereof, and other imposition before any fine, penalty, interest, or costs may be added for nonpayment.

(c) TENANT shall not be required to pay any tax, assessment or other imposition required by the terms of this Lease to be paid so long as TENANT at its own expense shall,

in good faith and with due diligence, contest the same or the validity thereof by appropriate legal proceedings. In such a case, TENANT may institute such proceedings in its own name, and TENANT shall indemnify DUPONT and save it harmless from and against all costs, charges or liabilities in connection with any such proceeding; provided, however, that TENANT shall take no action and shall delay no proceeding so as to jeopardize title of DUPONT to LEASED PROPERTY or its other lands situated in the State of Texas. TENANT shall give DUPONT prompt written notice of the commencement of any such proceedings.

(d) After any direct payment to any taxing authority, TENANT shall furnish to DUPONT, within forty-five (45) days after the date when any tax, special assessment or other imposition is payable, copies of the official receipts, or other reasonable proof satisfactory to DUPONT evidencing payment thereof.

(e) TENANT shall pay any and all taxes on its personal property, buildings, and other improvements included in the LEASED PROPERTY directly to the taxing authority.

(f) DUPONT agrees, at TENANT'S expense, to reasonably cooperate with TENANT in connection with the LEASED PROPERTY on issues concerning taxation, including, but not limited to, reasonably cooperating with TENANT in connection with qualifying the LEASED PROPERTY for any ad valorem tax exemptions, credits, reductions, or rebates which may be available with respect thereto.

SECTION 9. USE.

TENANT shall use the LEASED PREMISES solely for chemical manufacturing. TENANT will not manufacture fully hydrolyzed polyvinyl alcohol. TENANT shall not use or occupy LEASED PROPERTY or permit the same to be used or occupied contrary to any applicable governmental statute, rule, order, ordinance or regulation applicable thereto or in any manner

which would violate any certificate of occupancy affecting the same or which would constitute a public or private nuisance or waste.

SECTION 10. INDEMNIFICATION

(a) Except as otherwise provided in the Plant Services Contract, DUPONT agrees to indemnify, defend and hold harmless TENANT (and its directors, officers, shareholders, employees, affiliates, agents and assigns) from and against any and all losses, liabilities, damages, taxes, deficiencies, costs or expenses, including interest, penalties, attorneys' fees and disbursements, liabilities, damages, deficiencies, costs or expenses ("Loss") based upon, arising out of or otherwise in respect of any breach of any covenant, obligation or agreement of DUPONT contained in Section 11 of this Lease.

(b) Except as otherwise provided in the Plant Services Contract, TENANT agrees to indemnify, defend and hold harmless DUPONT (and its directors, officers, shareholders, employees, affiliates, agents and assigns) from and against any and all Loss as defined in Section 10(a) above based upon, arising out of or otherwise in respect of any breach of any covenant, obligation or agreement of TENANT contained in Section 11 of this Lease.

(c)(i) Except as otherwise provided in the Plant Services Contract or in Section 10(a) above or in Section 10(c)(ii) below, TENANT agrees to defend, indemnify and hold harmless DUPONT (including, its officers, directors, employees, subcontractors and agents) from and against any and all liabilities (including third party liabilities), claims, injuries (including death resulting therefrom), property damage, fine, penalty or assessment by any public agency, insofar as not prohibited by law, cost or expense (including costs of defense, settlement and reasonable attorneys' fees) ("Loss") which (1) are directly or

indirectly caused by any act or omission by TENANT, its agents, employees or subcontractors associated with, or arising from the performance of this Lease or the use of the LEASED PROPERTY, including any failure to comply with any pertinent federal, state or local law, statute, regulation, rule or (2) are caused jointly by any such act or omission by TENANT, its agents, employees or subcontractors and any such act or omission by any third party or third parties acting by, through or under TENANT. The term "liabilities" employed in the preceding sentence, and TENANT'S indemnification obligation, includes any strict liability and other liability without fault, however named, asserted against DUPONT.

(c) (ii) Except as otherwise provided in the Plant Services Contract or in Section 10(b) or Section 10(c) (i) above, DUPONT agrees to defend, indemnify and hold harmless TENANT (including its officers, directors, employees, subcontractors and agents) from and against any and all liabilities (including third party liabilities), claims, injuries (including death resulting therefrom), property damage, fine, penalty or assessment by any public agency, insofar as not prohibited by law, cost or expense (including costs of defense, settlement and reasonable attorneys' fees) ("Loss") which (1) are directly or indirectly caused by any act or omission by DUPONT, its agents, employees or subcontractors associated with, or arising from the performance of this Lease or the use of the LEASED PROPERTY, including any failure to comply with any pertinent federal, state or local law, statute, regulation, rule or (2) are caused jointly by any such act or omission by DUPONT, its agents, employees or subcontractors and any such act or omission by any third party or third parties acting by, through or under DUPONT. The term "liabilities" employed in the preceding sentence, and DUPONT's indemnification obligation, includes any strict liability and other liability without fault, however named, asserted against TENANT.

(d) (i) Promptly after receipt by any party hereto (the

"Indemnatee") of notice of any demand, claim or circumstances which, with the lapse of time, would give rise to a claim or the commencement (or threatened commencement) of any action, proceeding or investigation (an "Asserted Liability") that may result in a Loss, the Indemnatee shall give notice thereof (the "Claims Notice") to the other party obligated to provide indemnification pursuant to Section 10(a), 10(b), 10(c)(i) or 10(c)(ii) (the "Indemnifying Party"). The Claims Notice shall describe the Asserted Liability in reasonable detail and shall indicate the amount (estimated, if necessary) of the Loss that has been or may be suffered by the Indemnatee.

(d)(ii) The Indemnifying Party may elect to compromise or defend, at its own expense and by its own counsel, any Asserted Liability. If the Indemnifying Party elects to compromise or defend such Asserted Liability, it shall within thirty (30) days (or sooner, if the nature of the Asserted Liability so requires) notify the Indemnatee of its intent to do so, and the Indemnatee shall cooperate, at the request of and at the expense of the Indemnifying Party, in the compromise of, or defense against, such Asserted Liability. If the Indemnifying Party elects not to compromise or defend the Asserted Liability or fails to notify the Indemnatee of its election as herein provided or contests its obligation to indemnify under this Agreement, the Indemnatee may, at the expense of the Indemnifying Party, pay, compromise or defend such Asserted Liability. The Indemnifying Party may settle or compromise any claim without the consent of the Indemnatee only if, as part of such settlement, the Indemnatee shall receive a full and unconditional release reasonably satisfactory to the Indemnatee from the Asserted Liability but the Indemnatee shall not unreasonably withhold its consent to the settlement or compromise of any claim. In any event, the Indemnatee may participate, at its own expense, in the defense of such Asserted Liability. If the Indemnifying Party chooses to defend any claim, the Indemnatee shall make

available to the Indemnifying Party any books, records or other documents within its control that are necessary or appropriate for such defense, and shall cooperate with the Indemnifying Party in the defense, compromise and settlement of the Asserted Liability.

SECTION 11. ENVIRONMENTAL PROCEDURES AND RESPONSIBILITY.

(a) As used in this Lease:

(i) "Environmental Laws" means all federal, state or local laws, rules or regulations relating to pollution or protection of human health or the environment (including, without limitation, ambient air, soil, surface water, groundwater, wetlands, land or subsurface strata), including, without limitation, laws or regulations relating to Releases or threatened Releases of Hazardous Material, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, recycling or handling of Hazardous Material.

(ii) "Hazardous Material" means any (A) petroleum or petroleum products, radioactive materials, asbestos in any form that is or could become friable, aboveground or underground storage tanks, and equipment that contains polychlorinated biphenyls ("PCBs"); (B) any chemicals, materials or substances which are now defined as or included in the definition of "Hazardous Substances", "Hazardous Wastes", "Hazardous Materials", "Extremely Hazardous Wastes", "Restricted Hazardous Waste", "Toxic Substances", "Toxic Pollutants", "Pollutants", "Contaminants" or words of similar import, under any Environmental Law; and (C) any other chemical, material, substance or waste, exposure to which is prohibited, limited or regulated under any Environmental Law.

(iii) "Governmental Authority" means any court, tribunal, arbitrator, authority, agency, commission, official or other instrumentality of the United States or any state, province, county, city or other political subdivision.

(iv) "Release" means any release, spill, emission, leaking, injection, deposit, disposal, discharge, dispersal, leaching or migration into the atmosphere, soil, surface water, groundwater or property.

(b) DUPONT shall be responsible for and shall bear all liability, damages and costs which may be sustained or suffered by TENANT arising out of, based upon, or by reason of the generation, use, storage, treatment, disposal, discharge, spillage, Release, or threat of Release of any Hazardous Material resulting from (i) DUPONT'S use or operation of the LEASED PREMISES or the LEASED PROPERTY or of any machinery, equipment, facilities, pipelines or structures located thereon, on or prior to the Closing Date, (ii) DUPONT'S disposal of wastewater from the LEASED PREMISES or the LEASED PROPERTY or from any machinery, equipment, facilities, pipelines or structures located thereon, on or prior to the Closing Date, (iii) DUPONT'S use or operation of the LaPorte Plant property or facilities adjacent to or in close proximity to the LEASED PREMISES, whether prior to or after the Closing Date, (iv) DUPONT'S use of any of the rights retained under Exhibit C, as it may be modified by the parties, or (v) the use or operation by DUPONT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LaPorte Plant or the LEASED PREMISES, except as otherwise provided in the Plant Services Contract, and excluding any liability, damages and costs resulting from (A) the use by TENANT of any of the rights granted under Exhibit B as it may be modified by the parties, or (B) the use or operation by TENANT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LEASED PREMISES or the LaPorte Plant. TENANT shall be responsible for and shall bear all liability, damages and costs which may be sustained or suffered by DUPONT arising out of, based upon, or by reason of the generation, use, storage, treatment, disposal, discharge, spillage, Release, or threat of Release, of any Hazardous

Material resulting from (i) the use or operation by TENANT of the LEASED PREMISES or LEASED PROPERTY or of any machinery, equipment, facilities, pipelines or structures located thereon, after the Closing Date, (ii) the use by TENANT of any of the rights granted under Exhibit B, as it may be modified by the parties, or (iii) the use or operation by TENANT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LEASED PREMISES or at the LaPorte Plant, except as otherwise provided under the Plant Services Contract, and excluding any liability, damages and costs resulting from (A) DUPONT'S use of any of the rights retained under Exhibit C, as it may be modified by the parties, or (B) the use or operation by DUPONT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LaPorte Plant or the LEASED PREMISES. After the Closing Date, except as otherwise provided under the Plant Services Contract, DUPONT shall continue to own, operate, have access to, and shall be responsible for all liabilities, damages and costs associated with the operation of the No. 3 Deep Well and associated area retained by DUPONT.

(c) NIPPON GOHSEI has had conducted, at its sole cost and expense and in cooperation with DUPONT, an independent environmental audit (the "Environmental Audit") of the LEASED PREMISES and the facility located thereon and certain other areas of the LaPorte Plant performed by Dames & Moore as summarized in five reports, the first of which is entitled, "Final Report Phase 1 Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated April 29, 1994, the second of which is entitled "Limited Phase II Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated April 29, 1994, as amended by a letter dated July 14, 1994, from William P. Overesch to Junji Masuda enclosing a Revised Table 3, the third of which is entitled "East Ditch Sediment Assessment Selar® Unit Process Area and Associated

Facilities, LaPorte, Texas", dated June 2, 1994, the fourth of which is entitled "Cone Penetration Test Baseline Study Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated June 30, 1994 and the fifth of which is entitled "Supplement Report Phase I Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas" dated August 1, 1994 (the "Environmental Reports") copies of all of which have been provided to DUPONT.

(d) DUPONT and TENANT accept the data contained in the Environmental Reports, as representing the most current data, but the parties do not necessarily accept any of the opinions or conclusions contained in the Environmental Reports. The parties agree that the data contained in the Environmental Reports establish environmental baseline conditions at the LEASED PREMISES and the facility located thereon and the area referenced in the "East Ditch Sediment Assessment Selar® Unit Process Area and Associated Facilities, LaPorte, Texas," dated June 2, 1994; there is no agreement between the parties concerning the opinions or conclusions contained in the Environmental Reports. The parties shall use the same field sampling procedures and laboratory analytical test methodology and procedures to obtain environmental data in the future as was used in the Environmental Audit. With respect to constituents reported in the data in the Environmental Reports, DUPONT shall be responsible for and shall bear all liability, costs and damages which may be sustained or suffered by TENANT resulting from the presence of such constituents at the levels reported in the data; with respect to increases in such constituents after the Closing Date, each party shall be responsible for any increases in the constituents that it causes. If after the Closing Date there are increases in the constituents and both parties appear to have contributed to the increase but the proportion of each party's contribution is uncertain, then the parties shall share all liability, costs and damages resulting from

the increase of such constituents proportionately according to the amount of time of each party's possession of the facility located on the LEASED PREMISES.

(e) Periodic monitoring at the LEASED PREMISES will be accomplished through the use of cone penetrometer technology ("CPT") down to sand unit 3. Temporary or permanent monitoring wells will not be installed unless the parties agree that the results from CPT monitoring of sand unit 3 indicate a need for deeper monitoring. DUPONT and TENANT will meet periodically to determine the scope, design and timing for periodic monitoring at the LEASED PREMISES. The costs of periodic monitoring will be shared equally by DUPONT and TENANT, except that to the extent DUPONT and TENANT cannot agree on the scope, design or timing of periodic monitoring, either party may conduct such periodic monitoring within the LEASED PREMISES at its own expense which may include the use of CPT and/or temporary monitoring wells but not permanent monitoring wells. If temporary monitoring wells are used, the wells shall be permanently plugged and sealed promptly after the samples are obtained and sufficient time has passed for the laboratory to analyze the samples. If either party conducts periodic monitoring at its own expense, it shall make available to the other party, for inspection and/or copying, data generated in connection with such periodic monitoring at the LEASED PREMISES. All applicable industry and regulatory standards shall be applicable to all periodic monitoring conducted at the LEASED PREMISES.

(f) DUPONT agrees to make available to TENANT, for inspection and/or copying, all public data from soil and groundwater monitoring at the LaPorte Plant. All applicable industry and regulatory standards shall be applicable to all such monitoring conducted at the LaPorte Plant.

(g) The parties recognize that in connection with the operation of their chemical plants and facilities there could be occasional chemical releases to the air of limited

duration ("Excursions") which may require shutdown or restriction of operations and/or restriction of movement or evacuation of personnel. Notwithstanding any other provision of this Lease or of the Acetic Acid Purchase Contract or of the Plant Services Contract, including without limitation the provisions contained in other paragraphs of this Section 11, if a party has an Excursion, so long as the party uses its best reasonable efforts to promptly correct the Excursion, the party shall have no liability to the other party for the first ninety (90) minutes of loss suffered by the other party because of shutdown or restriction of the other party's operations caused by such Excursion, which loss shall include, without limitation, loss of production, maintenance and construction, loss of product, and clean up of product in the production facilities following shutdown or restriction of operations, it being understood that only the first ninety (90) minutes of loss from each Excursion is excused regardless of the length of the Excursion, and provided further if a party has an Excursion, the other party shall use its best reasonable efforts to minimize the loss to its operations caused by such Excursion.

(h) Within thirty (30) days after the Closing Date, TENANT will provide DUPONT with a list (the "List") of all Hazardous Material that will be used by TENANT at and/or be introduced by TENANT into the LEASED PROPERTY or in any machinery, equipment, facilities, pipelines or structures used in connection with the LEASED PROPERTY. After the Closing Date, TENANT will advise DUPONT once every calendar quarter of any Hazardous Material not on the List that were used by TENANT at and/or were introduced by TENANT into the LEASED PROPERTY or in any machinery, equipment, facilities, pipelines or structures used in connection with the LEASED PROPERTY.

(i) After the Closing Date, TENANT will make available to DUPONT, for inspection and/or copying, all environmental reports and notices that TENANT is required to provide to any

Governmental Authority regarding the LEASED PROPERTY or any operations in connection with the LEASED PROPERTY. After the Closing Date, DUPONT will make available to TENANT, for inspection and/or copying, all environmental reports and notices that DUPONT is required to provide to any Governmental Authority regarding the LaPorte Plant, or any operations in connection with the LaPorte Plant.

SECTION 12. REQUIREMENTS OF PUBLIC AUTHORITY.

(a) During the term of this Lease, TENANT shall, at its own cost and expense promptly observe and comply in all material respects with all present and future laws, ordinances, requirements, orders, directives, rules and regulations of the Federal, State, County, Town, Village and City Governments and of all other governmental authorities affecting the LEASED PROPERTY thereto or any part thereof whether the same are in force at the commencement of the term of this Lease or may in the future be passed, enacted or directed, and TENANT shall pay all costs, expenses, liabilities, losses, damages, fines, penalties, claims and demands, including reasonable counsel fees, that may in any manner arise out of or be imposed because of the failure of such party to comply with the covenants of this Section.

(b) TENANT shall have the right to contest by appropriate legal proceedings diligently conducted in good faith, in the name of TENANT, without cost or expense to DUPONT, the validity or application of any law, ordinance, rule, regulation or requirement of the nature referred to in subparagraph (a) of this Section and, if by the terms of any such law, ordinance, order, rule, regulation or requirement, compliance therewith may legally be delayed pending the prosecution of any such proceeding, TENANT may delay such compliance therewith until the final determination of such proceeding.

(c) DUPONT agrees to execute and deliver any

appropriate papers or other instruments which may be necessary or proper to permit TENANT so to contest the validity or application of any such law, ordinance, order, rule, regulation or requirement and to reasonably cooperate with TENANT in such contest.

SECTION 13. RESTRICTIONS ON LEASE ASSIGNMENT AND SUBLETTING.

(a) TENANT shall not assign or sublet this Lease or the LEASED PROPERTY or any part thereof or any interest therein, or otherwise permit the use or occupancy of the LEASED PROPERTY or of any Improvements or Project Improvements located thereon for any reason, including without limitation the operation of the Facility (as defined in the Agreement) except in connection with a Transfer (as defined in Section 13(b) below) of all or any part of the Facility in accordance with the provisions of subsections 13(b) through 13(i) of this Section.

(b) TENANT shall not be permitted to sell, transfer, lease, convey or otherwise change the ownership or possession of the Facility, or any portion thereof (hereinafter a "Transfer"), to a "Proposed Acquirer" (as such term is defined in subparagraph (f) of this Section) that is "financially weak" (as such term is defined in subparagraph (g) of this Section) or "lacks the technical expertise required for the safe operation of the Facility" (as such term is defined in subparagraph (h) of this Section). For the purpose of this subparagraph (b) of Section 13, "Ownership" shall mean holding any voting shares of any Entity (as defined below) or of any person or entity or having the right to receive any profits of any Entity or any person or entity and "Control" shall mean having the right to vote for or to appoint one or more of the directors, or individuals exercising similar functions of any Entity or any person or entity or the right to participate in directing the affairs of any Entity or any person or entity. For the

purpose of this Lease, any change in the Ownership or Control of any person or entity that has title to or the right of possession of the Facility or any portion thereof (an "Entity") as well as any change in the Ownership or Control of any person or entity that has, directly or indirectly, any Ownership or Control of any Entity (a "Parent of Entity"), whether or not any such change in Ownership or Control is accomplished through agreement, sale of one or more shares, sale of business, merger or otherwise, shall be deemed, without limitation, a Transfer (i) if, whether as a result of such change in Ownership or Control or not, NIPPON GOHSEI ceases to hold or does not hold, directly or indirectly, eighty percent (80%) or more of all outstanding voting shares of any Parent of Entity and of any Entity and/or does not have the right to receive eighty percent (80%) or more of the profits of any Parent of Entity and of any Entity or (ii) if any minority owner of any Parent of Entity or of any Entity shall play an active role in the management of any Entity or in the operation of the Facility. In the event of NOLTEX L.L.C. being TENANT under this Lease, "NIPPON GOHSEI" in the preceding sentence shall be replaced by "NIPPON GOHSEI and/or Mitsubishi Kasei Corporation jointly or separately." In such an event it is understood and agreed that (i) neither merger nor any change in the Ownership or Control of NIPPON GOHSEI or of Mitsubishi Kasei Corporation shall be deemed a Transfer hereunder and (ii) no agreement, sale of shares or business, merger or otherwise involving any direct or indirect subsidiary or subsidiaries of NIPPON GOHSEI or of Mitsubishi Kasei Corporation shall be deemed a Transfer hereunder provided that at all times NIPPON GOHSEI and/or Mitsubishi Kasei Corporation jointly or separately hold directly or indirectly a total of eighty percent (80%) or more of all outstanding voting shares of any such subsidiary which is a Parent of Entity and of any Entity and have the right to receive eighty percent (80%) or more of the profits of any such subsidiary which is a Parent of Entity and of any

Entity and provided further that no minority owner of any such subsidiary which is a Parent of Entity or of any Entity shall play an active role in the management of any Entity or in the operation of the Facility.

(c) In the event that TENANT shall enter into an agreement or an arrangement with respect to a Transfer (other than a lease arrangement) with a Proposed Acquirer which shall not be deemed to be financially weak or lack the technical expertise required for safe operation of the Facility but shall be deemed a "competitor of DUPONT" (as such term is defined in subparagraph (i) of this Section 13), then DUPONT shall have the right of first refusal (the "First Refusal Right") with respect to the Transfer to purchase the Facility or a portion thereof, as the case may be, upon the same terms and conditions agreed to by TENANT and the Proposed Acquirer. Upon entering into an agreement with a Proposed Acquirer with respect to a Transfer in accordance with this subparagraph (c), TENANT shall notify DUPONT, in writing, of its intention to consummate a Transfer to the Proposed Acquirer. Such notice shall include the terms upon which such Transfer shall be consummated, including the purchase price therefor. DUPONT shall have sixty (60) days after receipt of such notification to exercise its rights hereunder upon the terms and subject to the same conditions as the terms and conditions of the Transfer between the TENANT and the Proposed Acquirer. In the event that DUPONT shall elect not to exercise its right hereunder or fail to notify TENANT that DUPONT is exercising its right within the said sixty (60) day period, TENANT shall be permitted to consummate the Transfer to the Proposed Acquirer in accordance with the agreed upon terms and conditions. TENANT shall not lease or sublease the LEASED PREMISES, LEASED PROPERTY or the Facility, or a portion thereof, to a third party which is then a "competitor of DUPONT" (as such term is defined in subparagraph (i) of this Section), nor may there be a Transfer to a Proposed Acquirer which is a "competitor

of DUPONT" unless such Transfer shall be pursuant to a bona fide agreement of sale for the Facility or a portion thereof between TENANT and an unrelated Proposed Acquirer negotiated at arms-length for cash. For the purpose of the preceding sentence, a Proposed Acquirer shall be deemed "unrelated" to TENANT if neither TENANT nor the Proposed Acquirer holds, directly or indirectly, more than twenty percent (20%) of ownership interest in the other and if no third party entity holds, directly or indirectly, more than twenty percent (20%) of ownership interest in both TENANT and the Proposed Acquirer. However, if either TENANT or the Proposed Acquirer holds, directly or indirectly, over ten percent (10%) but not more than twenty percent (20%) of ownership interest in the other, or if a third party entity holds, directly or indirectly, over ten percent (10%) but not more than twenty percent (20%) of ownership interest in both of TENANT or the Proposed Acquirer, then DUPONT shall have an option (the "Option"), in lieu of the First Refusal Right, of having, at its expense, an independent national certified public accounting firm ("CPA") conduct an appraisal of the fair market value of the Facility or a portion thereof which is the subject of the proposed Transfer. DUPONT shall have fifteen (15) days, after receipt of TENANT's written notification given to DUPONT under this subparagraph (c) of TENANT's intention to consummate a Transfer to such a Proposed Acquirer (the "Over 10% Proposed Acquirer"), to exercise its Option and in the first notice to DUPONT under this subparagraph (c) TENANT shall advise DUPONT whether or not the Proposed Acquirer is an Over 10% Proposed Acquirer. In the event that DUPONT elects to exercise the Option, DUPONT shall notify TENANT, in writing, of its intention to do so, nominating, from the so called "Big Six" firms, a CPA which shall not be an auditor employed by DUPONT, NIPPON GOHSEI or Mitsubishi Kasei Corporation. TENANT shall have ten (10) days, after receipt of DUPONT's such notification, to respond in writing to DUPONT whether TENANT consents to

DUPONT's nomination of the CPA, which consent shall not be unreasonably withheld. In the event that TENANT elects not to consent to it with reason, the first nominated CPA shall, within ten (10) days after DUPONT's receipt of TENANT's such response, designate, in writing to both DUPONT and TENANT, another CPA from among the "Big Six" firms, which designation shall be conclusive and binding upon the parties hereto. DUPONT shall cause the designated CPA to conduct and complete the said appraisal within forty-five (45) days after DUPONT's receipt of TENANT's said written consent or the first nominated CPA's said designation, as the case may be. DUPONT shall have the right, exercisable by giving a written notice to TENANT within thirty (30) days after the designated CPA's completion of the appraisal, to purchase the Facility or a portion thereof which is the subject of the proposed Transfer, at the price offered by the Over 10% proposed Acquirer or at the appraised value thereof, whichever is lower. In the event that DUPONT shall elect not to exercise its said right within the said thirty (30) day period, TENANT shall be permitted to consummate the Transfer to the Over 10% Proposed Acquirer in accordance with the agreed upon terms and conditions.)

(d) NIPPON GOHSEI shall have the right to effectuate, or cause TENANT or a transferee from TENANT to effectuate, a Transfer to any majority-owned subsidiary of NIPPON GOHSEI, as long as no minority owner of such majority-owned subsidiary is then a "competitor of DUPONT" and provided, that NIPPON GOHSEI shall have first entered into an agreement with DUPONT in substantially the form attached hereto as Exhibit H, guaranteeing the performance by such majority-owned subsidiary; provided, however, that for the purpose of this subparagraph (d) of this Section 13, a minority owner of such majority-owned subsidiary shall not be deemed a "competitor of DUPONT" if (i) such minority owner's ownership interest is not more than twenty percent (20%) in the ownership of such subsidiary and (ii) such minority owner

does not play an active role in either the management of such majority-owned subsidiary or in the operation of the Facility.

(e) In the event that all or a portion of the Facility shall be sold or transferred in accordance with the provisions of this Section, the Proposed Acquirer shall first enter into an agreement with DUPONT, in a form reasonably acceptable to DUPONT, agreeing to be bound by the terms and provisions of this Section. TENANT shall be permitted to assign to the Proposed Acquirer, in connection with a Transfer authorized by this Section, the Plant Services Contract and the Acetic Acid Purchase Contract (the "Related Agreements"), provided that the Proposed Acquirer agrees with DUPONT in a form reasonably acceptable to DUPONT that the Proposed Acquirer will perform the Related Agreements; provided, however, that TENANT or such Proposed Acquirer shall not be restricted from manufacturing or otherwise producing at the Facility any product in no direct competition with fully hydrolyzed PVA.

(f) For purposes of this Section, a Proposed Acquirer shall be defined as any party to an agreement or arrangement with TENANT (or the then owner of the Facility or any portion thereof) providing for a Transfer, as well as any acquisition entity formed by such party for the sole purpose of purchasing, leasing, acquiring, or receiving the Facility or any portion thereof.

(g) For the purposes of this Section, a Proposed Acquirer shall be considered "financially weak" only if it falls under any of the following:

(i) the Proposed Acquirer is insolvent or had any accumulated loss as of the end of its latest fiscal year; or

(ii) the Proposed Acquirer shall not have earned a positive net income for the latest fiscal year; or

(iii) the net assets (on a consolidated basis) of the Proposed Acquirer as of the end of its latest fiscal year were less than the aggregate of its stated capital and

additional paid-in capital; or

(iv) Shareholders' equity (on a consolidated basis) of the Proposed Acquirer and its subsidiaries (excluding any minority interest in consolidated subsidiaries)

("Shareholders' Equity"), as of the end of its latest fiscal year was less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amount to be escalated by the increase in the Producer Price Index since December 31, 1993), or

(v) The total liabilities of the Proposed Acquirer plus the proposed purchase price of the Facility divided by total liabilities plus Shareholders' Equity plus the proposed purchase price of the Facility exceeds .8, or

(vi) Net sales of the Proposed Acquirer and its consolidated subsidiaries for its latest fiscal year were less than U.S. Three Hundred Million Dollars (\$300,000,000) or net chemical related sales were less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amounts to be escalated by the increase in the Producer Price Index since December 31, 1993).

Notwithstanding anything in this subparagraph (g) to the contrary, (A) if the Proposed Acquirer possesses a bond rating of at least B by Standard & Poor's or by Moody's, or if the Proposed Acquirer's parent possesses a bond rating of at least B by Standard & Poor's or by Moody's and the parent provides DUPONT with a guarantee, in substantially the form attached hereto as Exhibit H, guaranteeing to DUPONT the performance of the Proposed Acquirer and agreeing to be bound by the provisions of this Section, or (B) in the event that NIPPON GOHSEI provides DUPONT with a guaranty in substantially the form attached hereto as Exhibit H, guaranteeing to DUPONT the performance of the Proposed Acquirer, the Proposed Acquirer shall in no event be deemed "financially weak" pursuant to this subparagraph (g).

(h) For the purpose of this Section, the Proposed Acquirer shall be considered to "lack the technical expertise required for the safe operation of the Facility" only if it

falls under any of the following:

(i) The Proposed Acquirer has not been active in the operation of synthetic chemical operations of a complexity at least comparable to that of an EVOH facility for more than five (5) years immediately prior to the proposed acquisition, or

(ii) The Proposed Acquirer and its consolidated subsidiaries for its latest fiscal year had net sales less than U.S. Three Hundred Million Dollars (\$300,000,000) or net chemical-related sales less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amounts to be escalated by the increase in the Producer Price Index since December 31, 1993).

(i) For purposes of this Section, a Proposed Acquirer shall be deemed "a competitor of DUPONT" if such person or entity shall produce at any location any of the products manufactured by DUPONT, as of February 24, 1994, on the LaPorte Plant as are more specifically set forth on Schedule 8.12(h) of the Agreement (each such product being hereinafter referred to as a "Competitive Product").

SECTION 14. INSURANCE.

(a) TENANT shall provide at its expense and keep in force during the term of this Lease, commercial general liability insurance (including premises operation, bodily injury, personal injury, death, independent contractors, broad form property damage coverages) in a combined single limit amount of not less than Three Million and 00/100 (\$3,000,000) Dollars (the "Required Insurance Amount"), in a good and solvent insurance company or companies licensed to do business in the State of Texas, covering all of its liabilities hereunder. The Required Insurance Amount shall be adjusted every five (5) years by the proportionate increase or decrease in the Producer Price Index as calculated by the formula set forth on Exhibit D.

(b) All insurance policies carried or caused to be carried by TENANT shall be issued in the name of TENANT and shall show DUPONT, as an additional insured, but only as respect to DUPONT as lessor of the LEASED PREMISES.

(c) TENANT, in its discretion, may carry such insurance under a blanket fire and other hazards and causes insurance policy or policies issued to TENANT covering the LEASED PROPERTY and other premises or property. However, a certificate or true copy thereof evidencing said insurance shall be delivered to DUPONT on DUPONT'S written request.

(d) All insurance policies carried by TENANT covering the LEASED PROPERTY, including, but not limited to, contents, fire and casualty insurance, shall expressly waive any right on the part of the insurer against DUPONT and its insurers for claims covered by such policies except that with regard to casualty insurance such waiver as to DUPONT's insurers shall not apply to claims resulting from the sole negligence of DUPONT. TENANT agrees that its policy will include such waiver clause or endorsement, and hereby waives any claims against DUPONT for perils to be insured against by such insurance policies to the extent of the injury or loss covered by such policies.

(e) Notwithstanding the foregoing provisions of Section 14, TENANT shall be entitled, at its option, to self insure or to not insure against the first (\$1,000,000.00) of casualties required to be covered by insurance as set out in Section 14 of this Lease without providing evidence thereof to DUPONT, and in such event, TENANT shall be deemed to have taken out such insurance coverage and this Lease shall be construed accordingly.

SECTION 15. CONDEMNATION.

In the event that the whole or any part of LEASED PREMISES be taken by virtue of eminent domain or for any public or quasi-public use, the parties shall be entitled to

share in the compensation and award, including accumulated interest, if any, in accordance with the following provisions:

(a) If the whole of LEASED PREMISES shall be taken, then this Lease shall cease and terminate and DUPONT shall receive a share of the condemnation award equal to the proportion that the fair market value of the land taken, considered as unimproved by the TENANT owned improvements thereon, as of the date of taking, bears to the fair market value of the land improved with the improvements, and if such value shall be officially determined and stated in the condemnation proceedings, then the amount thereof shall control for the purposes of this provision, and if not, the award shall be proportionately shared by DUPONT and TENANT according to their respective ownership interests as described above.

(b) If only a part of LEASED PREMISES shall be taken, then the parties shall share in the condemnation award in proportion to the extent that their respective interests are depreciated, damaged or destroyed as a result of the taking and if such values and such resulting or consequential damages shall be officially determined and stated in the condemnation proceedings, then the amount thereof shall control for the purposes of this provision.

(i) If in TENANT'S good faith reasonable opinion, the condemnation or appropriation materially interferes with TENANT'S use of the LEASED PREMISES, as described in Section 9 herein, then TENANT shall have the right, to be exercised by written notice within ninety (90) days to DUPONT after the date of such condemnation or appropriation, to terminate this Lease as to such remaining part of the LEASED PREMISES not so taken, on a date to be specified in said notice, which date shall not be earlier than the date of such taking, in which case TENANT shall pay and satisfy all rent due and accrued up to such date of such termination, including all sums of additional rent and all other charges to such date, and shall

perform all the obligations of TENANT hereunder and thereupon this Lease shall terminate.

(ii) If the condemnation does not materially affect the use and enjoyment of the LEASED PREMISES as set forth in Section 9 of this Lease, as decided in TENANT'S good faith reasonable opinion, or the TENANT elects not to terminate as herein provided, then this Lease shall continue in full force and effect, and the rent for the LEASED PREMISES shall be adjusted in proportion to the reduction in acreage, rounded up to the nearest tenth of an acre.

(iii) In case of a second or any other additional partial taking or takings from time to time, the provisions herein above contained shall apply to each partial taking.

SECTION 16. DEFAULT.

(a) Any of the following occurrences, conditions or acts shall constitute an "Event of Default" under this Lease. The provisions of Section 18 of this Lease shall not apply to any disputes, claims or issues arising under or relating to subsection 16(a)(i), 16(a)(ii), 16(b)(i), 16(b)(ii) or any other provision of this Section 16 insofar as it relates to any of the four preceding subsections.

(i) If TENANT defaults in making payment when due of any installment of Rent, additional rent, or other amount payable hereunder by TENANT to DUPONT, and such default continues for a period of fifteen (15) days after DUPONT shall have given notice to TENANT specifying such default;

(ii) If TENANT attempts to make an assignment or sublet of this Lease or sublets all or a portion of the LEASED PROPERTY, except as is provided in Section 13 herein, and such default continues for a period of fifteen (15) days after DUPONT shall have given notice to TENANT specifying such default; or

(iii) If TENANT defaults in the observance or performance of any provision of this Lease (other than those

provisions referenced herein above under subparagraph (a) (i) and (ii), and such default continues for a period of thirty (30) days after DUPONT shall have given notice to TENANT specifying such default; provided, however, if such default cannot be wholly cured within such thirty (30) day period, then TENANT shall not be deemed to be in default so long as TENANT has commenced the cure of such default within said thirty (30) day period and continues, with due diligence, to prosecute said cure, provided said cure period shall not exceed an additional sixty (60) day period.

(b) Upon the occurrence of an Event of Default, DUPONT shall have the following remedies:

(i) With respect to an Event of Default described in Section 16 (a) (i), if TENANT has not tendered payment of the amount in default, together with interest thereon at a rate per annum equal to one and one half percent (1 1/2%) per month or the highest rate allowed by law, whichever is the lower (the "Default Rate") as of the date of the Event of Default (which interest shall be calculated from the date the payment was due until the date of payment), on or before the fifteenth (15th) day after DUPONT gives notice of such default under Section 16(a) (i), then, DUPONT shall have the right to terminate this Lease by notice of termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the fifteenth (15) day following the giving of such notice of termination; provided, however, if TENANT tenders payment of the amount in default, together with the interest due thereon at the Default Rate, prior to said effective date of termination, said notice of termination shall be deemed null and void.

(ii) With respect to an Event of Default described in Section 16 (a) (ii), if TENANT has not cured the Event of Default on or before the fifteenth (15th) day after DUPONT gives notice of default under Section 16(a) (ii), then, DUPONT shall have the right to terminate this Lease by notice of

termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the fifteenth (15th) day following the giving of such notice of termination; provided, however, that if TENANT cures said default by rescinding the attempted transfer prior to said effective date of termination, said notice of termination shall be deemed null and void.

(iii) With respect to an Event of Default described in Section 16 (a)(iii), DUPONT shall have the right but not the obligation to take such reasonable action as is necessary to cure the default. All costs and expenses incurred by DUPONT shall be for the account of TENANT, and shall be paid by TENANT. TENANT shall reimburse DUPONT within thirty (30) days after receipt of a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT. If not paid within such thirty (30) day period, TENANT shall pay such amount with interest thereon at the Default Rate from the date such payment is due until said amount is received by DUPONT. Notwithstanding any other provision of this Lease and subject to the terms of this Section, with respect to an Event of Default described in Section 16(a)(iii), if TENANT has failed to cure such default on or before the thirtieth (30th) day after DUPONT gives notice of such default under Section 16(a)(iii), or on or before any applicable additional period provided for in Section 16(a)(iii), whichever period is longer, then DUPONT shall have the right to terminate this Lease by notice of termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the thirtieth (30th) day following the giving of such notice of termination; provided, however, if TENANT cures such default prior to said effective date of termination, said notice of termination shall be null and void.

(c) DUPONT, upon providing TENANT with any notice of an Event of Default (herein called a "Default Notice", and all defaults specified under subparagraphs 16(a)(i), (a)(ii) and

(a)(iii) shall be called a "Default"), shall at the same time provide a copy of such notice to every Registered Mortgagee. From and after the date of the Default Notice, each Registered Mortgagee shall have the same period for remedying such Default as is given to TENANT, to remedy, commence remedying, or cause to be remedied the Default specified in any such Default Notice. Provided, however, no Registered Mortgagee shall have any right to cure any Defaults under Section 16(a)(ii) and Section 16(b)(ii). DUPONT shall accept such performance by or at the instigation of any such Registered Mortgagee as if the same had been done by TENANT. TENANT authorizes each Registered Mortgagee to take any such action at each Registered Mortgagee's option and does hereby authorize entry upon the LEASED PROPERTY by the Registered Mortgagee(s) for such purposes. Provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto.

(d) Anything contained in this Lease to the contrary notwithstanding, if any Default shall occur which entitles DUPONT to terminate this Lease pursuant to Section 16(b)(i) and 16(b)(iii), DUPONT shall notify each Registered Mortgagee of DUPONT'S intention to so terminate ("Notice of Termination") at least fifteen (15) days in advance of the proposed effective date of such termination and such termination shall not be effective if, during such fifteen (15) day period, any such Registered Mortgagee shall:

(i) notify DUPONT of such Registered Mortgagee's election to nullify such notice; and

(ii) pay or cause to be paid all rent and other payments then due and in arrears as specified in the Default Notice delivered to such Registered Mortgagee, and in addition, agree to pay or cause to be paid all rent and other payments which may become due during such fifteen (15) day period, and promptly reimburse DUPONT for all costs and expenses incurred by DUPONT pursuant to Section 16(b)(iii)

upon receipt by the Project Mortgagee of a reasonably detailed statement from DUPONT as set forth in Section 16(b)(iii); and

(iii) comply or in good faith, with reasonable diligence and continuity, commence to comply with all non monetary requirements of this Lease then in Default and reasonably susceptible of being complied with by such Registered Mortgagee, except that such Registered Mortgagee shall not be required during such fifteen (15) day period to cure or commence to cure any Default consisting of TENANT'S failure to satisfy and discharge any lien, charge or encumbrance against the TENANT'S interest in this Lease or the LEASED PROPERTY junior in priority to the lien of the mortgage held by such Registered Mortgagee but DUPONT shall be entitled to cure or commence to cure such Default as provided in the next sentence, and provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto. Also, DUPONT shall have the right, but not the obligation, in lieu of any action by Registered Mortgagee, to cure any Default in any requirements of this Lease at Registered Mortgagee's expense and to take any such action as is necessary to cure any such Default whether or not Registered Mortgagee is permitted or required to cure any such Default. In the event DUPONT exercises its rights to cure the Default, whether or not Registered Mortgagee is permitted or required, DUPONT shall provide Registered Mortgagee with a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT, and Registered Mortgagee will promptly reimburse DUPONT for all such costs and expenses.

(e) If (I) the Default giving rise to the Default Notice shall not have been cured, (II) DUPONT shall elect to terminate this Lease by reason of any Default of TENANT and (III) a Registered Mortgagee shall have (aa) paid or caused to be paid all sums described in subparagraph (d)(ii) of this

Section 16 and (bb) complied or commenced to comply with all non-monetary requirements of this Lease then in Default and reasonably susceptible of being complied with by such Registered Mortgagee, provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto, then the specified date for the termination of this Lease as fixed by DUPONT in its notice shall be extended for a period of three (3) months, provided that such Registered Mortgagee shall, during such three (3) month period:

(i) pay or cause to be paid the rent and other monetary obligations of TENANT under this Lease as the same become due, and continue its good faith efforts to perform all of TENANT'S other obligations under this Lease, excepting obligations of TENANT to satisfy or otherwise discharge any lien, charge or encumbrance against TENANT'S interest in this Lease or the LEASED PROPERTY junior in priority to the lien of the mortgage held by such Registered Mortgagee, but DUPONT shall be entitled to cure or commence to cure such obligations as provided in the next sentence and provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto. Also, DUPONT shall have the right, but not the obligation, in lieu of any action by Registered Mortgagee, to cure any requirements of this Lease then in Default at Registered Mortgagee's expense and to take any such action as is necessary to cure any such Default, whether or not Registered Mortgagee is permitted or required to cure any such Default. In the event DUPONT exercises its rights to cure the default, whether or not Registered Mortgagee is permitted or required to cure any such default, DUPONT shall provide Registered Mortgagee with a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT, and Registered Mortgagee will promptly reimburse DUPONT for all such costs and expenses.

(ii) if not enjoined or stayed, take steps to acquire or sell TENANT'S interest in this Lease and the LEASED PROPERTY by foreclosure of the mortgage or other appropriate means and prosecute the same to completion with due diligence, subject to the provisions of this Lease including, without limitation, Sections 13 and 31 hereof.

(iii) if during such three (3) month period such Registered Mortgagee's efforts to acquire or sell TENANT'S interest in this Lease and the LEASED PROPERTY by foreclosure of the mortgage or other appropriate means are enjoined or stayed, then the three (3) month period shall be extended until thirty (30) days after such injunction or stay has ended but in no event shall such three (3) month period be extended for more than a total of four (4) additional months even if such injunction or stay is still in effect, and provided that during any such extended period Registered Mortgagee shall comply with the provisions of subparagraph (e)(i) above, the other provisions of subparagraph (e)(i) above will apply and Registered Mortgagee shall use its best reasonable efforts to remove the injunction or stay.

(f) If at the end of such three (3) month period, or such longer period provided in subparagraph (e)(iii) above, the Default is not cured, then this Lease shall terminate.

(g) Nothing herein contained shall require any Registered Mortgagee or its designee to cure any non-monetary Default that is not reasonably susceptible of being cured by such Registered Mortgagee or its designee in order to exercise any of its rights pursuant to subparagraphs(c) or (d) of this Section 16, subject to DUPONT'S rights to cure defaults and to be reimbursed therefore as set forth herein.

SECTION 17. DAMAGE TO OR DESTRUCTION OF IMPROVEMENTS.

(a) In case of damage or destruction of the Improvements (or Project Improvements as hereinafter defined) in whole or in part by fire or other casualty (including any

casualty for which insurance was not obtained or obtainable) of any kind or nature, ordinary or extraordinary, foreseen or unforeseen, TENANT shall give immediate notice of such casualty to DUPONT. If the cost to repair, restore, replace or rebuild the Improvements (or Project Improvements) is in excess of Ten Million Dollars (\$10,000,000.00), TENANT, at its sole and absolute discretion, and subject to the consent of the holder of any Project Mortgage, may notify DUPONT by notice given not later than the sixtieth (60th) day following such casualty that TENANT elects to terminate this Lease pursuant to the provisions of Section (c) below.

(b) If TENANT shall not elect, or shall fail to notify DUPONT that it elects, to terminate this Lease, or if TENANT shall fail to obtain the consent of the Project Mortgagee's, if any, to terminate this Lease, or if the cost to repair, restore, replace or rebuild the Improvements (or Project Improvements) is less than Ten Million Dollars (\$10,000,000.00), then TENANT shall cause the damage to be repaired, with reasonable speed at the expense of TENANT, subject to any delays which may arise by reason of adjustment of loss under insurance policies or unavoidable circumstances.

(c) In the event TENANT elects to terminate this Lease pursuant to Section 17(a), TENANT shall, with reasonable speed, cause the Improvements (or the Project Improvements) affected by such casualty to be demolished to ground level or otherwise secured to the reasonable satisfaction of DUPONT and also comply with all other provisions of this Lease including Section 21.

(d) DUPONT and TENANT further agree and acknowledge that all rights of DUPONT in and to the insurance proceeds of any all-risk or other property insurance applicable to the Improvements (or Project Improvements) or any portion thereof, if any, on account of such fire or other casualty, shall be and remain subordinate, inferior and subject to the interests in such proceeds held by any Project Mortgagee or

TENANT. Under no circumstances whatsoever shall DUPONT maintain that it has any right or claim of any kind or nature in and to any proceeds of any all-risk or other property insurance policies applicable to the Improvements (or Project Improvements) or any portion thereof on account of such fire or other casualty of equal priority or superior to the interest in such proceeds held by any Project Mortgagee or TENANT.

SECTION 18. ALTERNATIVE DISPUTE RESOLUTION.

(a) Both parties understand and appreciate that their long term mutual interests will be best served by effecting a rapid and fair resolution of any claims or disputes which may arise out of services performed under this Lease or from any dispute concerning Lease terms. Therefore, both parties agree to use their best efforts to resolve all such disputes as rapidly as possible on a fair and equitable basis. Toward this end, within one (1) year of the execution of this Lease, both parties agree to develop and follow a process for presenting, rapidly assessing, and settling claims and other disputes on a fair and equitable basis. The mediation procedure as set forth herein must be followed prior to either party filing for litigation (hereinafter the "Process").

(b) If any dispute or claim arising under this Lease cannot be readily resolved by the parties pursuant to the Process referenced in subsection (a), the parties agree to refer the matter to a panel consisting of one (1) senior executive from each party for review and resolution. The senior executive shall not have been directly involved in the claim or dispute. A copy of the Lease terms, relevant facts, areas of disagreement, and concise summary of the basis for each side's contentions will be provided to both executives who shall review the same, confer, and attempt to reach a mutual resolution of the issue. The senior executives shall

attempt to meet and resolve the dispute within thirty (30) days of their appointment.

(c) If the dispute cannot be resolved, under the process set forth in subsection (b), within ten (10) days from the date of the panel's conference, the parties agree to attempt to resolve the dispute or claim through non-binding mediation. The parties shall select a single qualified mediator (the "Mediator"), knowledgeable in real estate, who is not presently affiliated with or related to either party. The Mediator shall hold a hearing (not to exceed one day) as soon as practicable after his appointment (but not later than thirty (30) days after his appointment) during which each party shall present its version of the matter, supported, if desired, by a brief statement of the issue(s), sworn, written testimony, relevant documents, its assessment of damages, and its argument. The parties shall provide the Mediator with copies of all such materials as well as any documents provided to their senior executives under subparagraph (b) at least ten (10) days prior to the scheduled date of the mediation hearing. The parties may also provide the Mediator with copies of any laws or regulations which they feel are relevant to the dispute. A copy of this Lease will be provided to the Mediator. Formal written arguments, legal memorandum, and live testimony are discouraged but may be permitted at the discretion of the Mediator. Both parties agree to make any relevant and involved employees or documents available to the other party for its review and use in preparing its position under this Section without the need for subpoena or other court order.

(d) The Mediator, within ten (10) days of the completion of the hearing, will meet separately with both parties and provide each of them, on a confidential basis, with his/her written views of the strengths and weaknesses of their respective positions. The parties will then reconvene and, with the assistance of the Mediator, attempt to resolve the matter. If resolution cannot be achieved by the parties

within forty-eight (48) hours of this second meeting, the Mediator will, within ten (10) additional days, issue a written, non-binding decision on the issue.

(e) Each party shall, within five (5) days of the Mediator's written decision, notify the other in writing whether it will accept or reject that decision. If the matter has not been resolved utilizing the processes set forth in this clause and the parties are unwilling to accept the non-binding decision of the Mediator, either or both parties may elect to pursue resolution through litigation.

(f) The selected Mediator shall execute a confidentiality agreement, satisfactory to all parties, prior to his/her active participation in the mediation. The costs of the Mediator shall be shared equally by the parties. Each party will bear its own costs of mediation.

(g) If the parties cannot agree upon a choice of a Mediator within ten (10) days of the date of the panel's conference pursuant to subparagraph (b), the matter shall be submitted directly to District Court of Harris County, Texas for selection of a Mediator.

(h) All statements, correspondence, memorandum, briefs, decisions, testimony, communications, and materials, whether written or oral, submitted to or generated by the panel and/or Mediator in connection with the processes set forth above shall be deemed to be in furtherance of settlement negotiations and shall be privileged and shielded from production and disclosure in any subsequent litigation.

SECTION 19. WAIVERS.

Failure of DUPONT or TENANT to complain of any act or omission on the part of the other party no matter how long the same may continue, shall not be deemed to be a waiver by said party of any of its rights hereunder. No waiver by DUPONT or TENANT at any time, express or implied, of any breach of any provision of this Lease shall be deemed a

waiver of a breach of any other provision of this Lease or a consent to any subsequent breach of the same or any other provision.

SECTION 20. NOTICES.

(a) All notices, requests, demands, waivers, consents, approvals or other communications required or permitted hereunder shall be in writing and be given to the other party by hand delivery, by transmission by facsimile followed by confirmation by mail, or by first class mail (or airmail, if applicable) postage prepaid and shall be deemed to have been duly given (i) immediately upon hand delivery by courier or otherwise, (ii) if transmitted by facsimile when the facsimile is sent to the appropriate number and the recipient acknowledges receipt by telephone or in writing, or (iii) five (5) days after being mailed by first class mail (or airmail, if applicable) postage prepaid, in each case addressed, delivered and/or communicated as follows:

To DUPONT

E. I. DU PONT DE NEMOURS AND COMPANY
Corporate Real Estate
1007 Market Street
Wilmington, Delaware 19898
Telephone Number: 302-992-5286
Facsimile Number: 302-992-5296

With a copy to:

DuPont LaPorte Plant
P.O. Box 347
LaPorte, Texas 77572-0347
Attn: LaPorte Plant Manager
Telephone Number: 713-470-3211
Facsimile Number: 713-470-3965

To TENANT:

NOLTEX L.L.C.
c/o Masuda & Ejiri
399 Park Avenue, 22nd Floor
New York, New York 10022
Attn: Junji Masuda, Esq.
Telephone Number: 212-486-2525
Facsimile Number: 212-486-2614

With a copy to:

NOLTEX L.L.C
12220 Strang Road
LaPorte, Texas 77572-1489
Telephone Number: 713-471-0050
Facsimile Number: 713-471-0597

(b) Any party may by notice to the other parties to this Agreement change the address to which notice or other communications to it are to be delivered or mailed. Whenever the giving of notice is required pursuant to this Lease, the giving of such notice may be waived in writing by the party entitled to receive such notice.

SECTION 21. SURRENDER.

At the expiration or earlier termination of this Lease, TENANT agrees to deliver the LEASED PROPERTY to DUPONT in good order and condition and make good all damage to the LEASED PROPERTY, ordinary wear and tear excepted. Any improvements owned by TENANT on the LEASED PREMISES or constituting the LEASED PROPERTY shall be removed by TENANT prior to the expiration or early termination of this Lease. If TENANT fails to so remove, DUPONT shall have the right to remove the same at TENANT'S expense. In the event DUPONT purchases the Facility as defined and pursuant to the terms of Section 13 of the Lease, TENANT shall not be required to

remove said Facility.

SECTION 22. GOVERNING LAW.

Except as otherwise provided herein, this Lease and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State of Texas; however, the Courts of the State of New York shall have sole and exclusive jurisdiction over all matters of controversy arising under this Lease.

SECTION 23. PARTIAL INVALIDITY.

If any term, covenant, condition or provision of this Lease or the application thereof to any person or circumstance shall, at any time or to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term, covenant, condition and provision of this Lease shall be valid and be enforced to the fullest extent permitted by law.

SECTION 24. MEMORANDUM OF LEASE.

The parties will at Closing execute duplicate originals of an instrument, in recordable form, which will constitute a short form of lease as set forth as Exhibit I.

SECTION 25. SUCCESSION.

All of the covenants, agreements, conditions and undertakings of this Lease ("Covenants") shall extend and inure to and be binding upon the successors and permitted assigns of the respective parties hereto. All Covenants herein made binding upon the parties hereto shall be construed to be equally applicable to and binding upon their

agents, employees and others claiming the right to be on the LEASED PROPERTY or the LaPorte Plant through or under authority of either of the parties hereto.

SECTION 26. QUIET ENJOYMENT.

DUPONT covenants and warrants that, as long as no default on the part of TENANT shall have occurred and be continuing under this Lease, DUPONT or persons claiming by, through or under DUPONT will take no action which interferes with the peaceful and quiet enjoyment and possession of the LEASED PROPERTY by TENANT, its successors and permitted assigns during the term of this Lease, as extended.

SECTION 27. BROKERS.

DUPONT and TENANT covenant, warrant and represent that there was no broker or agent instrumental in consummating this Lease and that no conversations or prior negotiations were had with any broker or agent concerning the leasing of the LEASED PROPERTY. Each party agrees to hold the other harmless against any claims for brokerage commissions arising out of any conversations or negotiations had by such party with any broker or agent.

SECTION 28. REPRESENTATIONS AND WARRANTIES OF THE PARTIES.

(a) As material inducements to TENANT to enter into this Lease, as of the date hereof, DUPONT represents and warrants to TENANT as follows:

1. DUPONT has the requisite corporate power and authority to enter into this Lease, to carry out its obligations hereunder, and to grant to TENANT a leasehold interest in the LEASED PROPERTY in accordance with the terms and conditions hereof;

2. This Lease has been duly executed by duly authorized officers of DUPONT;

3. DUPONT is a corporation duly organized, validly existing, and in good standing under the laws of the State of Delaware;

4. DUPONT has record title to the LEASED PROPERTY. Except as set forth in Exhibit K, there are no unrecorded liens, easements, or encumbrances against the LEASED PROPERTY that materially interferes with TENANT'S use of the LEASED PROPERTY. The LEASED PROPERTY, however is subject to all matters of record and any state of facts that is apparent from the SURVEY.

(b) As material inducements to DUPONT to enter into this Lease, as of the date hereof, TENANT represents and warrants to DUPONT as follows:

1. TENANT has the requisite power and authority to enter into this Lease, to carry out its obligations hereunder, and to lease from DUPONT the LEASED PROPERTY in accordance with the terms and conditions hereof;

2. This Lease has been duly executed by TENANT or by duly authorized officers or managers of TENANT;

3. TENANT is a limited liability company duly formed, validly existing, and in good standing under the laws of the State of Texas.

(c) As to this Section 28, neither party shall present or assert any claim against the other party on account of misrepresentation or breach of warranty more than ten (10) years after the date of this Lease, and neither party shall bring any action against the other party on account of misrepresentation or breach of warranty more than ten years (10) after the date of this Lease.

SECTION 29. EASEMENTS.

(a) Subject to paragraph (c) of this Section, if at any time during the term of this Lease, either party determines that it is necessary to grant to any public authority, utility company, or other third party any easements of any

kind under, over or across the LEASED PREMISES or any portion thereof and such easement does not materially interfere with the other party's operations, then such easement will be granted. At TENANT'S request, DUPONT agrees that it will subordinate its fee simple interest in the LEASED PREMISES to any such easement.

(b) Subject to paragraph (c) of this Section, if at any time during the term of this Lease, TENANT determines that it is necessary to obtain an easement for any third party under, over, or across the LaPorte Plant outside the LEASED PREMISES, and such easement does not materially interfere with DUPONT operations, DUPONT will grant such easement provided that TENANT first pays DUPONT a reasonable fee for such easement.

(c) DUPONT further agrees that it will execute any easements or other instruments or documents in a form and substance reasonably acceptable to DUPONT which may be required by TENANT, any public authority, utility company, or other party in connection with any of the foregoing; provided, however, that DUPONT shall have no obligation to execute any such instrument or document which would create or cause DUPONT to assume any liability unless TENANT shall indemnify DUPONT against any and all liability arising in connection with the grant in a form acceptable to DUPONT. Any and all easements granted herein shall be coterminous with the effective term of this Lease and shall terminate upon the termination of this Lease. If TENANT shall discontinue use of any said easement for a continuous one hundred eighty (180) day period without justification, or if TENANT shall discontinue use of any said easement whether with or without justification for a period of two (2) years, then such grant of the easement shall revert back to DUPONT and TENANT shall obtain a release of easement from the third party who holds such grant pursuant to this Section.

SECTION 30. ENTIRE AGREEMENT.

This Lease, together with the Plant Services Contract, with regard to the matters described herein, constitutes the full, complete and entire agreement as to the matters discussed herein between and among the parties hereto. No amendment of the Lease shall be binding or effective unless such amendment shall be in writing, signed by both DUPONT and TENANT.

SECTION 31. MORTGAGING OF THE LEASED PROPERTY.

Definitions Throughout this Lease, the following terms and definitions shall apply:

"Project Improvements" shall mean and have reference to any and all buildings, structures, and improvements constructed on the LEASED PROPERTY by or on behalf of TENANT pursuant to this Lease, including any improvements constructed on the LEASED PROPERTY by or on behalf of TENANT subsequent to the construction in whole or in part of any of the structures originally placed on the LEASED PROPERTY by TENANT pursuant to the provisions of this Lease, together with all fixtures and appurtenances attached or affixed to said improvements or to the LEASED PROPERTY.

"Project Mortgage" shall mean and have reference to any encumbrance of TENANT'S leasehold interest and estate for years, in and to the LEASED PREMISES or any portion thereof or any interest therein, as security for any indebtedness or other obligation of TENANT, whether by deed to secure debt, mortgage, deed of trust, pledge, financing statement, security agreement, or other security instrument.

"Project Mortgagee" shall mean and have reference to any holder of the indebtedness or other obligation secured by any Project Mortgage.

"Registered Mortgagee" shall mean and have reference to any Project Mortgagee who has registered with DUPONT pursuant to Section 31(c) of this Lease.

(a) Right to Mortgage; TENANT'S Rights in the LEASED PROPERTY. TENANT shall have the right to encumber its right to use and occupy the LEASED PROPERTY, the leasehold estate created hereby, all right, title, and interest in and to the Improvements and Project Improvements, as well as in and to any and all other buildings at any time located on the LEASED PREMISES, and any other property so affixed to said land, buildings, or improvements as to be a part thereof and all rents, income, revenues, issues and profits now or hereafter incident or belonging to said leasehold estate and buildings and property, under any one or more Project Mortgages, as security for any indebtedness or obligation; provided that no Project Mortgagee or anyone that claims by, through, or under such Project Mortgage or instrument in the nature thereof, shall by virtue thereof acquire any greater right in the LEASED PREMISES and in any Improvements or Project Improvements thereon than TENANT then had under this Lease and provided further that no Project Mortgage may extend the term of this Lease or limit in any way DUPONT'S exercise of any of its rights under this Lease including the right to terminate this Lease. The execution and delivery of any such Project Mortgage, the transfer to the Project Mortgagee of the leasehold estate pursuant to any foreclosure (judicial or otherwise) thereof or any deed or assignment in lieu of foreclosure or the disposition of the leasehold estate by the holder of such Project Mortgage shall not be prohibited by the provisions of Section 13 hereof but shall be subject, however, to the provisions of Section 31(d) below. Any Project Mortgage shall in all respects be and remain subordinate and inferior to DUPONT'S rights, title, privileges and interests in and to the LEASED PROPERTY, and TENANT shall not have the right to encumber in any manner DUPONT'S fee simple title and reversionary interest in and to the LEASED PROPERTY.

(b) Agreement With Project Mortgagees. DUPONT hereby agrees to enter into an agreement with Project Mortgagees,

the terms of which shall be consistent with the provisions of this Section 31, in form and substance reasonably acceptable to DUPONT and to the Project Mortgagees, providing that this Lease and the rights and interests of DUPONT in and to the LEASED PROPERTY shall survive any foreclosure or deed in lieu of foreclosure under the Project Mortgages subject to the provisions of Section 31(d) below.

(c) Notices to Registered Mortgagees. In the event TENANT shall encumber its right to use and occupy the LEASED PROPERTY or any portion thereof or any interest therein with a Project Mortgage and the Project Mortgagee shall register with DUPONT by delivering to DUPONT a copy of the Project Mortgage certified by the Clerk of Harris County Texas, together with a written notice specifying the name and address of the Project Mortgagee, the pertinent recording data, and the term or duration of the Project Mortgage, then from and after the date of receipt by DUPONT of such registration and for the term or duration of said Project Mortgage, upon serving TENANT with any notice under this Lease, DUPONT shall simultaneously serve in the same manner as notice is given to TENANT a copy of such notice to all Registered Mortgagees, the serving of which notice upon each Registered Mortgagee entitled to the delivery thereof shall be a condition precedent to the effectiveness thereof. Upon request DUPONT shall notify any Registered Mortgagee of the identity and address of DUPONT'S agent, if any, for receipt of notice and payments hereunder and such Registered Mortgagee shall be entitled to rely on such notice until such Registered Mortgagee is delivered a notice from DUPONT changing the identity and/or address of such agent, and notices sent and payments made in accordance with such a notice by DUPONT shall constitute notice and payment to all parties included within the term "DUPONT". Each Registered Mortgagee shall have the right to remedy or cause to be remedied the default complained of or request made, and DUPONT shall accept performance by or at the instigation of

any Registered Mortgagee with the same force and effect as if TENANT had performed the action in question subject to the provisions of Section 31(d) below. Nothing contained herein shall be construed as imposing any obligation upon any Project Mortgagee so to perform or comply on behalf of TENANT.

(d) Rights and Restrictions of Project Mortgagees.

Notwithstanding the provisions of Section 13 of this Lease, a Project Mortgagee may foreclose a Project Mortgage (by judicial procedure or otherwise) subject to the provisions of this Section 31(d). The Project Mortgagee may take legal title to TENANT'S leasehold interest and TENANT'S rights to the LEASED PROPERTY but may not operate the Facility or any machinery or equipment or process located on the LEASED PREMISES, nor may any third party operate the Facility or any machinery or equipment or process located on the LEASED PREMISES while the Project Mortgagee has title to TENANT'S leasehold interest and TENANT'S rights to the LEASED PREMISES. While holding legal title to the leasehold interest in the LEASED PROPERTY, the Project Mortgagee shall ensure that the LEASED PROPERTY and the LEASED PREMISES and machinery and equipment are in a safe condition and not in violation of any applicable law, rule, regulation, ordinance or order. The Project Mortgagee may only sell or transfer the LEASED PREMISES and the machinery and equipment located on the LEASED PROPERTY and TENANT'S interest in the LEASED PROPERTY subject to and in accordance with the provisions and requirements set forth in Section 13 hereof. Upon the breach of any of the provisions of this Section 31(d) by any Project Mortgagee, or by any third party claiming through or in possession with the permission of any Project Mortgagee, DUPONT shall have the right to immediately terminate this Lease upon notice to the Project Mortgagee and to any Registered Mortgagee.

(e) Limitation on Liability of Project Mortgagees.

Except as provided in subsection 31(d) above, no Project

Mortgagee shall be or become liable to DUPONT as an assignee of this Lease or otherwise unless it expressly assumes by written instrument such liability, (in which event the Project Mortgagee's liability shall be limited to the period of time it is the owner of the leasehold estate created hereby) and no assumption shall be inferred from or result from foreclosure or other appropriate proceedings in the nature thereof or as the result of any other action or remedy provided for by such Project Mortgage or other instrument or from a conveyance from TENANT in accordance with the provisions of Section 13 hereof pursuant to which the purchaser at foreclosure or grantee shall acquire the rights and interests of TENANT under the terms of this Lease; provided that nothing in this Section shall be deemed to prevent DUPONT from exercising its remedies under this Lease. It is further agreed that no Project Mortgagee who acquires rights in the LEASED PROPERTY or this Lease solely by virtue of the provisions of a Project Mortgage shall have any liability hereunder except as expressly provided in this Section 31.

(f) Modification of Lease: Termination.

Notwithstanding the existence of one or more Project Mortgages, DUPONT and TENANT may modify and amend this Lease except that neither DUPONT nor TENANT may agree to any termination of this Lease other than as then provided herein so long as any Registered Mortgagee retains an interest in any Project Mortgage.

(g) Limitation on Number of Registered Mortgages. The rights granted a Registered Mortgagee in this Section 31 shall not extend to more than two (2) such Registered Mortgagees at any one time and shall be exercisable by each Registered Mortgagee in the order of the respective priorities of the Project Mortgages.

(h) Certificates. DUPONT and TENANT shall execute, acknowledge, and deliver to the other promptly upon written request a certificate certifying any of the following as

requested:

(i) Validity of Lease: That this Lease is unmodified and in full force and effect (or, if there have been modifications, that this Lease is in full force and effect, as modified, and stating the modifications); and

(ii) Defaults: That no notice has been given by DUPONT to TENANT or by TENANT to DUPONT of any Default under this Lease that has not been cured and to the best of its knowledge and belief no Default exists (or if such exists, or if notice has been given, describing the same).

Certificates from DUPONT and TENANT pertaining to the aforesaid matters may be relied upon by any existing or prospective Project Mortgagee. No certificate issued hereunder, however, shall be deemed to affect the rights and obligations of DUPONT and TENANT between themselves under this Lease.

SECTION 32. NO POSITIONS AT VARIANCE WITH THIS LEASE.

Subject to the conditions and provisions of Section 16 and 18, DUPONT and TENANT agree that as between themselves neither shall formally or officially adopt, espouse, adhere to, urge, or otherwise maintain any position or point of view, whether in litigation, administrative proceedings, or in any other form or context whatsoever, which is in conflict with any term, covenant, provision, agreement, stipulation, warranty, representation, or fact set forth in this Lease.

SECTION 33. WAIVER OF JURY TRIAL.

The parties hereto, hereby waive their rights to trial by jury in any litigation with respect to, in connection with, or arising out of this Lease or the validity, interpretation, collection or enforcement thereof.

SECTION 34. CERTAIN PIPELINE EASEMENTS.

DUPONT shall not permit relocation within the LEASED PREMISES of the Gulf Oil Corporation and Union Carbide Corporation pipeline easements without TENANT's consent which consent shall not be unreasonably withheld.

SECTION 35. WASTEWATER PIPELINE RIGHT OF WAY.

At Closing, as defined in the Agreement, TENANT shall pay DUPONT the sum of One Hundred Twenty Thousand Dollars (\$120,000.00) in full consideration to DUPONT of and as a total payment to DUPONT for the wastewater pipeline right of way during the effective term of this Lease set forth in Exhibit B, number 20.

SECTION 36. REMOVAL OF RESTRICTIONS.

If during the term of this Lease DUPONT sells the entire LaPorte Plant to a party other than TENANT, DUPONT agrees that the restrictions set forth in Section 13 and the restrictions on Project Mortgages set forth in Section 31(d) shall be removed.

SECTION 37. TENANT'S RIGHT OF FIRST OFFER.

In the event DUPONT elects to subdivide and sell the LEASED PREMISES apart from the rest of the LaPorte Plant, it shall notify TENANT of its intention to so sell the LEASED PREMISES. Within ten (10) days of the receipt of such notice, TENANT shall notify DUPONT if it elects to enter into negotiations to purchase the LEASED PREMISES. If DUPONT does not receive notice from TENANT of its election to enter into negotiations to purchase the LEASED PREMISES within such ten (10) day period, DUPONT shall be free to sell the LEASED PREMISES as it sees fit.

If TENANT notifies DUPONT within such ten (10) day period that it elects to enter into the purchase of the

LEASED PREMISES, then within ten (10) days of the receipt of that notice, both parties must appoint an independent appraiser who is MAI certified or the equivalent professional and knowledgeable and experienced in determining market value in Harris County, Texas. Each of those two appraisers must agree to the appointment of a third appraiser within five (5) days to determine Fair Market Value of the LEASED PREMISES. The Fair Market Value shall be the average of the two closest of the three appraisals, which all three (3) shall be completed within thirty (30) days. If one party shall fail to nominate an independent appraiser within the above-referenced ten (10) day period, then the determination of the Fair Market Value shall be made by the independent appraiser nominated by the other party. The cost of the independent appraiser(s) shall be borne equally by the two parties.

After the determination of the Fair Market Value of the LEASED PREMISES is made pursuant to the preceding paragraph, DUPONT shall, within ten (10) days notify TENANT if it is willing to sell the LEASED PREMISES to TENANT for an amount equal to such Fair Market Value to be paid in cash at closing. If DUPONT does not notify TENANT in accordance with the preceding sentence, DUPONT shall be barred from selling the LEASED PREMISES for a period of one (1) year and then may sell the LEASED PREMISES only in accordance with this Section.

Within ten (10) days of the receipt of such notice, TENANT shall notify DUPONT if it elects to purchase the LEASED PREMISES for such Fair Market Value provided that closing must occur within sixty (60) days. If DUPONT does not receive notice from TENANT of its election to purchase the LEASED PREMISES within such ten (10) day period or if closing has not occurred within such sixty (60) day period, TENANT'S rights of first offer are extinguished, and DUPONT shall be free to sell the LEASED PREMISES as it sees fit.

Notwithstanding anything to the contrary in this Section, in no event shall DUPONT be required to follow the

requirements of this Section if the sale of the LEASED PREMISES is part of a sale involving all or any other part of the LaPorte Plant.

SECTION 38. TENANT'S RIGHT OF FIRST REFUSAL.

If during the term of this Lease DUPONT elects to sell any portion of DUPONT's LaPorte Plant which includes the LEASED PREMISES, TENANT shall have the option to purchase the LEASED PREMISES at the higher of (i) the appraised value of the LEASED PREMISES or (ii) the price offered for the LEASED PREMISES by a third party which DUPONT wishes to accept ("Offered Price") provided such Offered Price is a bona fide offer from an unrelated third party. Within ten (10) days after the receipt of DUPONT's written notice that DUPONT is selling a portion of the LaPorte Plant which includes the LEASED PREMISES, TENANT shall notify DUPONT in writing whether or not TENANT elects to purchase the LEASED PREMISES. If TENANT elects not to purchase the LEASED PREMISES or if TENANT fails to notify DUPONT in writing of TENANT's decision within ten (10) days after the receipt of DUPONT's written notice, then TENANT's rights hereunder shall terminate. If TENANT properly notifies DUPONT of TENANT's election to purchase the LEASED PREMISES, then within ten (10) days of such notice, both parties must appoint an independent appraiser who is MAI certified or the equivalent professional and knowledgeable and experienced in determining market value in Harris County, Texas. Each of those two appraisers must agree to the appointment of a third appraiser within five (5) days to determine Fair Market Value of the LEASED PREMISES. The Fair Market Value shall be the average of the two closest of the three appraisals, all three (3) of which shall be completed within thirty (30) days. If one party shall fail to nominate an independent appraiser within the above referenced ten (10) day period, then the determination of the Fair Market Value shall be made by the independent appraiser

nominated by the other party. The cost of the independent appraiser(s) shall be borne equally by the two parties.

After the determination of Fair Market Value of the LEASED PREMISES is made, TENANT shall purchase the LEASED PREMISES for the higher of the Fair Market Value or the Offered Price. TENANT shall purchase the LEASED PREMISES upon the terms and conditions agreed to between DUPONT and the third party and shall close within sixty (60) days after the determination of Fair Market Value.

IN WITNESS WHEREOF, the parties hereto have caused this Lease to be executed on the day and year first above written.

WITNESS: E. I. DU PONT DE NEMOURS AND COMPANY

By: _____
David M. McAndrews

Title: Vice President and General
Manager - Packaging and
Industrial Polymers

WITNESS NOLTEX L.L.C.

By: _____
Shoji Ito

Title: President

nolt2



April 27, 2021

Brian Kinkopf
Noltex L.L.C
12220 Strang Rd
La Porte, TX 77571

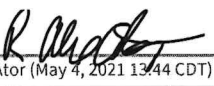
Re: Notice of Effective Date of Assignment of Agreement at La Porte Site

Dear Brian,

Further to the letter previously sent to you, E. I. du Pont de Nemours and Company doing-business-as Corteva Agriscience (together with its applicable affiliates, "Seller") hereby provides a confirmatory notice that the Seller has completed the assignment of the rights and obligations (the "Assignment") under the contract(s) listed on Schedule 1 (collectively, the "Agreement(s)") to La Porte Rail and Terminal, LLC ("Buyer"), effective as of March 17, 2021 (the "Effective Date"). This letter provides confirmatory notice of the following as of the Effective Date: (a) the Assignment of the Agreement(s), and the assumption by Buyer, of all rights of Seller in, to and under the Agreement(s), (b) the assumption by Buyer of all obligations and liabilities of Seller under the Agreement(s) to the extent arising on or after the Closing, and (c) confirmation that, upon the Assignment, the Agreement(s) will continue in full force and effect in accordance with the current terms for the benefit of Buyer, as assignee.

Very truly yours,

E. I. du Pont de Nemours and Company

By: 
R-Alex Ator (May 4, 2021 13:44 CDT)
R. Alex Ator
Authorized Representative



Schedule 1

1. Lease Agreement dated August 12, 1994 by and between E. I. du Pont de Nemours and Company and Noltex L.L.C (as such contract may have been amended or supplemented from time to time)
2. Plant Services Contract dated August 12, 1994 by and between E. I. du Pont de Nemours and Company and Noltex L.L.C (as such contract may have been amended or supplemented from time to time)

April 12, 2024

**Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team, MC-148
12100 Park 35 Circle
Austin, Texas 78753**

**RE: Application for Renewal of TPDES Permit – WQ000526500
Mitsubishi Chemical America, Inc. – La Porte Site**

To Whom It May Concern,

Please find attached the required forms and attachments associated with the Mitsubishi Chemical America, Inc. (MCA) – La Porte Site's application to renew the TPDES Industrial Wastewater Permit WQ000526500. This permit authorizes certain wastewater discharges from the MCA – La Porte facility (formerly Noltex L.L.C.), located at 12220 Strang Road in La Porte.

If his workload permits, we request that Cole Gray be the reviewer of this permit application. He is familiar with the existing permit and has been providing assistance throughout the permit process.

There is one (1) original and two (2) copies of the completed application including the Administrative Report, Technical Report, and all required Worksheets and Attachments. If you have any questions regarding this application or require additional information, I can be reached by phone at (281) 842-5039 or via email at Laura.Burnett@mcgc.com.

Sincerely,



Laura Burnett
Lead Environmental Engineer

Enclosures

Mitsubishi Chemical America, Inc. – La Porte Site
TPDES Industrial Wastewater Permit Renewal Application

Contents

Core Data Form (TCEQ Form 10400)

Industrial Administrative Report (TCEQ Form 10411)

Industrial Technical Report and applicable Worksheets (TCEQ Form 10055)

Attachments: Attachment 1 – Application Payment Voucher

Attachment 2 – Plain Language Form (TCEQ Form 20972)

Attachment 3 – Lease Agreement (CONFIDENTIAL)

Attachment 4 – USGS Map

Attachment 5 – Supplemental Permit Information Form (TCEQ Form 20971)

Attachment 6 – Facility Map

Attachment 7 – Facility Flow Diagram

Attachment 8 – Safety Data Sheets with Summary



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

1. Reason for Submission (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
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 605866037		RN 101049518

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input 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>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Mitsubishi Chemical America Inc.					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
803958475		32077995036		522196843	50871698
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
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		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14. Customer Role (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					
15. Mailing Address:	1999 Bryan St				
	Ste 900				
	City	Dallas	State	TX	ZIP 75201 ZIP + 4 3140
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity' is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

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).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

MCA La Porte Site

23. Street Address of the Regulated Entity:

(No PO Boxes)

12220 Strang Rd

City

La Porte

State

TX

ZIP

77571

ZIP + 4

9740

24. County

Harris

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

25. Description to Physical Location:

26. Nearest City

State

Nearest ZIP Code

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).

27. Latitude (N) In Decimal:

29.70208889

28. Longitude (W) In Decimal:

-95.0425000

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29. Primary SIC Code

(4 digits)

30. Secondary SIC Code

(4 digits)

31. Primary NAICS Code

(5 or 6 digits)

32. Secondary NAICS Code

(5 or 6 digits)

2821

325211

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

34. Mailing Address:

12220 Strang Rd

City

La Porte

State

TX

ZIP

77571

ZIP + 4

9740

35. E-Mail Address:

Laura.Burnett@mcgc.com

36. Telephone Number

37. Extension or Code

38. Fax Number *(if applicable)*

(281) 842-5000

(281) 842-5907

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.

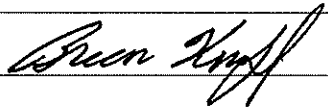
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review 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:
	WQ0005265000			

SECTION IV: Preparer Information

40. Name:	Laura Burnett	41. Title:	Senior Environmental Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(281) 842-5039		() -	Laura.Burnett@mcgc.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.

Company:	Mitsubishi Chemical America	Job Title:	General Manager
Name (In Print):	Brian Kinkopf	Phone:	(281) 842- 5043
Signature:		Date:	4-11-2024



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

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

APPLICANT NAME: Mitsubishi Chemical America Inc.

PERMIT NUMBER (If new, leave blank): WQ00 005265000

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 checked="" type="checkbox"/>	<input 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"/>
Public Involvement Plan Form	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Worksheet 11.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plain Language Summary	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 the Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst¹](#)).

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

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

Applicant Name: Mitsubishi Chemical America Inc.

Permit No.: WQ0005265000

EPA ID No.: TXR000011106

Expiration Date: 10/07/2024

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

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater 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

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Click to enter text.

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____

Permit Number _____

¹ https://www.tceq.texas.gov/publications/search_forms.html

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 checked="" 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 ²	<input type="checkbox"/> \$2,050	<input 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.: \$315.00

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

Epay

Voucher number: 701115 and 701116

Copy of voucher attachment: Attachment 1

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: CN605866037

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

b. Legal name of the entity (applicant) applying for this permit: Mitsubishi Chemical America Inc.

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.

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: Mr. Full Name (Last/First Name): Brian Kinkopf

Title: General Manager

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

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

² All facilities are designated as minors until formally classified as a major by EPA.

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

☐ 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 one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: Section 2

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

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

a. ☒ Administrative Contact . ☒ Technical Contact

Prefix: Click to enter text.

Full Name (Last/First Name): Laura Burnett

Title: Senior Environmental Engineer

Credential: Click to enter text.

Organization Name: Mitsubishi Chemical America Inc

Mailing Address: 12220 Strang Road

City/State/Zip: La Porte, TX 77571-9740

Phone No: 281-842-5039

Email: Laura.Burnett@mcgc.com

b. ☐ Administrative Contact ☒ Technical Contact

Prefix: Click to enter text.

Full Name (Last/First Name): Julie Kafcas

Title: Senior Project Manager Credential: Click to enter text.

Organization Name: Spirit Environmental

Mailing Address: 20465 State Highway 249, Suite 300 City/State/Zip: Houston, TX 77070

Phone No: 720-500-3719 Email: jkafcas@spiritenv.com

Attachment: Click to enter text.

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

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

- a. Prefix: Click to enter text. Full Name (Last/First Name): Laura Burnett
Title: Senior Environmental Engineer Credential: Click to enter text.
Organization Name: Mitsubishi Chemical America Inc
Mailing Address: 12220 Strang Road City/State/Zip: La Porte, TX 7751-9740
Phone No: 281-842-5039 Email: Laura.Burnett@mcgc.com
- b. Prefix: Click to enter text. Full Name (Last/First Name): Shawn Roussel
Title: Credential: Click to enter text.
Organization Name: Mitsubishi Chemical America Inc
Mailing Address: 12220 Strang Road City/State/Zip: La Porte, TX 7751-9740
Phone No: 281-842-5034 Email: Shawn.Roussel@mcgc.com
Attachment: Click to enter text.

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: Click to enter text. Full Name (Last/First Name): Laura Burnett
Title: Senior Environmental Engineer Credential: Click to enter text.
Organization Name: Mitsubishi Chemical America Inc
Mailing Address: 12220 Strang Road City/State/Zip: La Porte, TX 77571-9740
Phone No: 281-842-5039 Email: Laura.Burnett@mcgc.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: Click to enter text. Full Name (Last/First Name): Laura Burnett
Title: Senior Environmental Engineer Credential: Click to enter text.
Organization Name: Mitsubishi Chemical America Inc

Mailing Address: 12220 Strang Road

City/State/Zip: La Porte, TX 77571-9740

Phone No: 281-842-5039

Email: Laura.Burnett@mcgc.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Ms. Full Name (Last/First Name): Julie Kafcas

Title: Senior Project Manager Credential: Click to enter text.

Organization Name: Spirit Environmental

Mailing Address: 20465 State Highway 249, Suite 300 City/State/Zip: 77571-9740

Phone No: 720-607-4263 Email: jkafcas@spiritenv.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: Laura.Burnett@mcgc.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: Ms Full Name (Last/First Name): Laura Burnett

Title: Senior Environmental Engineer Credential: Click to enter text.

Organization Name: Mitsubishi Chemical America Inc

Phone No: 281-842-5039 Email: Laura.Burnett@mcgc.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: La Porte Library Location within the building: Library Shelves

Physical Address of Building: 600 S Broadway St

City: La Porte County: Harris

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. Plain Language Summary Template – Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment. Attachment: 2
- g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. 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: RN101049518

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 (the name known by the community where located): MCA La Porte Site

- 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: Mitsubishi Chemical America Inc

Mailing Address: [Click to enter text.](#) City/State/Zip: [Click to enter text.](#)

Phone No: [Click to enter text.](#) Email: [Click to enter text.](#)

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

- f. Owner of land where treatment facility is or will be: E.I. Dupont de Nemours and Company
 Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.
 or Organization Name: Click to enter text.
 Mailing Address: 1007 Market Street City/State/Zip: Wilmington, DE 19898
 Phone No: 281-470-2371 La Porte Plant 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 (In some cases, a lease may not suffice - see instructions). Attachment: 3
- g. Owner of effluent TLAP disposal site (if applicable): Click to enter text.
 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: 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.

Item 11. TDPES 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.
- | | |
|---|--|
| <input checked="" type="checkbox"/> One-mile radius | <input checked="" type="checkbox"/> Three-miles downstream information |
| <input checked="" type="checkbox"/> Applicant's property boundaries | <input checked="" type="checkbox"/> Treatment facility boundaries |
| <input checked="" type="checkbox"/> Labeled point(s) of discharge | <input type="checkbox"/> Highlighted discharge route(s) |
| <input type="checkbox"/> Effluent disposal site boundaries | <input type="checkbox"/> All wastewater ponds |
| <input type="checkbox"/> Sewage sludge disposal site | <input type="checkbox"/> New and future construction |
- Attachment: 4
- 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: n/a

- 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): La Porte, Texas

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

- 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: Click to enter text.

- k. County in which the disposal site is located: Click to enter text.

- l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Click to enter text.

- m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Click to enter text.

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: WQ0005265000

Applicant Name: Mitsubishi Chemical America Inc

Certification: I, Brian Kinkopf, 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): Brian Kinkopf

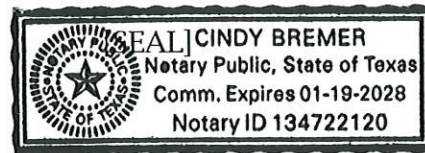
Signatory title: General Manager

Signature:  Date: 4-11-2024
(Use blue ink)

Subscribed and Sworn to before me by the said General Manager
on this 11th day of April, 20 24.
My commission expires on the 19th day of January, 20 28.


Notary Public

Harris
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: 5

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if mailing the payment. (Instructions, Page 36-37)

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Permit No:** WQ000 [Click to enter text.](#)

1. Check or Money Order Number: [Click to enter text.](#)
2. Check or Money Order Amount: [Click to enter text.](#)
3. Date of Check or Money Order: [Click to enter text.](#)
4. Name on Check or Money Order: [Click to enter text.](#)
5. APPLICATION INFORMATION

Name of Project or Site: [Click to enter text.](#)

Physical Address of Project or Site: [Click to enter text.](#)

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

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

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Item 1. Individual information (Instructions, Page 38)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., or Miss): [Click to enter text.](#)

Full legal name (first, middle, and last): [Click to enter text.](#)

Driver's License or State Identification Number: [Click to enter text.](#)

Date of Birth: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone No.: [Click to enter text.](#)

Fax No.: [Click to enter text.](#)

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

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

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 Cross Reference List
(See instructions for landowner requirements.)
- ☒ N/A ☐ Landowners Labels or CD-RW attached
(See instructions for landowner requirements.)
- ☒ 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.)*
- ☒ Plain Language Summary



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

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

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

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

Mitsubishi Chemical America, Inc. (MCA) manufactures synthetic ethylene vinyl alcohol resins at its La Porte, Texas Plant. The primary raw materials for this process are vinyl acetate and ethylene. The process wastewater and utility wastewater are currently sent to Gulf Coast Waste Disposal Authority's (GCA) Bayport Central Facility for treatment. Stormwater is discharged to Upper San Jacinto Bay through an MSGP-permitted stormwater outfall.

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

Non-process industrial wastewater treatment operations for an ethylene vinyl alcohol barrier resins manufacture. This application is for a permit to discharge wastewater from a microfiltration water treatment unit, cooling tower blowdown, reactor unit cooling water, water treatment wastes, and neutralized demineralizer regenerant wastewater. No process wastewater or process area storm water will be discharged from Outfall 001 covered by this permit.

¹
https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

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

Materials List

Raw Materials	Intermediate Products	Final Products
Ethylene (74-85-1)	Ethylene Vinyl Acetate Copolymer (24937-78-8)	Ethylene Vinyl Alcohol Copolymer (26221-27-2)
Methanol (67-56-1)	Methyl Acetate (79-20-9)	Acetic Acid (64-19-7)
Vinyl Acetate (108-05-4)		

Attachment: n/a

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

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

Attachment: 6

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

☐ Yes ☒ No

If **yes**, provide background discussion: [Click to enter text.](#)

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

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain:

Federal Emergency Management Agency (FEMA) National Flood Hazard Layer available online at: <http://fema.maps.arcgis.com>

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

Attachment: n/a

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

☐ Yes ☐ No ☒ N/A (renewal only)

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

☐ Yes ☐ No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide an approximate date of application submittal to the USACE: [Click to enter text.](#)

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.

Neutralization

- 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: 7

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 #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) (S) or (A)				
Alt. Liner Attachment Reference				
Leak Detection System, Y/N				
Groundwater Monitoring Wells, Y/N				
Groundwater Monitoring Data Attachment				
Pond Bottom Located Above The Seasonal High-Water Table, Y/N				
Length (ft)				
Width (ft)				
Max Depth From Water Surface (ft), Not Including Freeboard				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				

Parameter	Pond #	Pond #	Pond #	Pond #
40 CFR Part 257, Subpart D, Y/N				
Date of Construction				

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

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: 7

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

Attachment: N/A

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

Attachment: N/A. All wastewater is contained in tanks and piping until it is discharged at the outfall.

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

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

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

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

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	29.704522	-95.041958

Outfall Location Description

Outfall No.	Location Description
001	Outfall is located approximately 733.4 ft to the north of the MCA facility with discharge directly into the Upper San Jacinto Bay.

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

Outfall No.	Description of sampling point
001	The sampling point will be off the pump discharge of the Outfall Tank.

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 - Phase 1	0.144	0.36			05/01/2024
001 - Phase 2	0.216	0.54			06/19/2024
001 - Phase 3	0.288	0.720			08/07/2024

Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	Y	N	Orifice Plate Flow Meter

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used

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	28-31	12

Outfall Wastestream Contributions

Outfall No. **001**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Microfiltration Water Treatment Unit	0.18	25
Cooling Tower Blowdown Lines 1 and 2	0.18	25
Cooling Tower Blowdown Line 3	0.18	25
Demineralization / Regeneration	0.18	25

Outfall No. [Click to enter text.](#)

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. [Click to enter text.](#)

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

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

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: 8

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	2	360,000	720,000
Boilers	N/A		

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: [Click to enter text.](#)

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: [Click to enter text.](#)
- 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.
Gulf Coast Authority - Bayport Treatment Facility	WQ0001054000

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: The current permit has a three-phase implementation schedule, with each phase corresponding to the redirection of a new source of non-process wastewater to the outfall. The first phase, beginning with the discharge of cooling tower blowdown and reactor unit cooling water, requires initial testing of general chemistry water parameters, the results of which must be submitted within 90 days of commencing Phase 1 discharge. Following startup of the first phase, weekly sampling is required for TSS, Oil and Grease, and total copper, with continuous tracking of flow. Phase 2 begins when water treatment wastes are added to the discharged wastewater, and requires initial testing for metals, the results of which must be submitted within the first 90 days of Phase 2 discharge. Weekly sampling continues after the start of Phase 2, with the addition of weekly testing for zinc. Daily limits for average and maximum flow are increased during phase 2. Phase 3 begins when neutralization tank wastewater is added to the discharged wastewater from Phase 2, and requires initial testing for pollutants suspected to be in the wastewater, the results of which must be submitted within the first 90 days of Phase 3 discharge. Weekly sampling continues after the start of Phase 3, with the addition of weekly testing for total residual chlorine. Daily limits for average and maximum flow are increased again during Phase 3. Full implementation to Phase 3 is anticipated by August 30, 2024.

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: [Click to enter text.](#)

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

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

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

☐ Yes ☒ No

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

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

- b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).

- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: [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)

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

☐ Yes ☒ No

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

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Radioactive 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

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

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

☐ Yes ☒ No

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

c. Cooling Water Supplier

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

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

CWIS ID				
Owner				
Operator				

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

☒ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. City of Houston TX1010013; DuPont La Porte Plant TX1011171

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

☐ Yes ☒ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: [Click to enter text.](#)

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

☐ Yes ☒ No

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: [Click to enter text.](#)

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 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

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

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.

Click to enter text.

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

☐ Yes ☒ No

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

Click to enter text.

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

☒ Yes ☐ No

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

Update the owner of the facility from Noltex LLC to Mitsubishi Chemical America, Inc.

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: Laura Burnett

Title: Senior Environmental Engineer

Signature: 

Date: 4-12-24

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 2.0: POLLUTANT ANALYSIS

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

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

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): As of the time of application, no discharges have occurred and there have been no sampling events. Discharges and sampling anticipated to begin 5/1/2024.
- b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** Not applicable. A & B Environmental Services, Inc. will be used once sampling begins for all pollutants required to be analyzed in the permit.

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:** Not applicable – discharges have not begun and no sampling events have occurred.

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)				
CBOD (5-day)				
Chemical oxygen demand				
Total organic carbon				
Dissolved oxygen				
Ammonia nitrogen				
Total suspended solids				
Nitrate nitrogen				
Total organic nitrogen				
Total phosphorus				

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Oil and grease				
Total residual chlorine				
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO3)				
Temperature (°F)				
pH (standard units)				

Table 2 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)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5
Barium, total					3
Beryllium, total					0.5
Cadmium, total					1
Chromium, total					3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total					2
Cyanide, available					2/10
Lead, total					0.5
Mercury, total					0.005/0.0005
Nickel, total					2
Selenium, total					5
Silver, total					0.5
Thallium, total					0.5
Zinc, total					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.: [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)*
Acrylonitrile					50
Anthracene					10
Benzene					10
Benzdine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
Bis(2-chloroethyl)ether					10
Bis(2-ethylhexyl)phthalate					10
Bromodichloromethane [Dichlorobromomethane]					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane [Dibromochloromethane]					10
Chloroform					10
Chrysene					5
m-Cresol [3-Methylphenol]					10
o-Cresol [2-Methylphenol]					10
p-Cresol [4-Methylphenol]					10
1,2-Dibromoethane					10
m-Dichlorobenzene [1,3-Dichlorobenzene]					10
o-Dichlorobenzene [1,2-Dichlorobenzene]					10
p-Dichlorobenzene [1,4-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
1,2-Dichloroethane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]					10
Dichloromethane [Methylene chloride]					20
1,2-Dichloropropane					10
1,3-Dichloropropene [1,3-Dichloropropylene]					10
2,4-Dimethylphenol					10
Di-n-Butyl phthalate					10
Ethylbenzene					10
Fluoride					500
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Methyl ethyl ketone					50
Nitrobenzene					10
N-Nitrosodiethylamine					20
N-Nitroso-di-n-butylamine					20
Nonylphenol					333
Pentachlorobenzene					20
Pentachlorophenol					5
Phenanthrene					10
Polychlorinated biphenyls (PCBs) (**)					0.2
Pyridine					20
1,2,4,5-Tetrachlorobenzene					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethene [Tetrachloroethylene]					10
Toluene					10
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethene [Trichloroethylene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
2,4,5-Trichlorophenol					50
TTHM (Total trihalomethanes)					10
Vinyl chloride					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.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					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
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
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"/>					400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>					—
Sulfide (as S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>					—
Sulfite (as SO ₃)	<input checked="" type="checkbox"/>	<input type="checkbox"/>					—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>					—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					1
Tin, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>					30

TABLE 7 (Instructions, Page 60)

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

☒ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<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.: [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)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					10

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

* Indicate units if different from µg/L.

Table 9 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)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 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)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 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
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

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

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
1,2,3,4,6,7,8-HpCDD	0.01					50

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
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.: [Click to enter text.](#) 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

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: **3,160** 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: [Click to enter text.](#)
- 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: [Click to enter text.](#)
- 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: [Click to enter text.](#)

- f. General observations of the water body during normal dry weather conditions: [Click to enter text.](#)

Date and time of observation: [Click to enter text.](#)

- 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):

<input type="checkbox"/> oil field activities	<input type="checkbox"/> urban runoff
<input type="checkbox"/> agricultural runoff	<input type="checkbox"/> septic tanks
<input type="checkbox"/> upstream discharges	<input type="checkbox"/> other, specify: Click to enter text.

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

<input type="checkbox"/> livestock watering	<input type="checkbox"/> industrial water supply
<input type="checkbox"/> non-contact recreation	<input type="checkbox"/> irrigation withdrawal
<input type="checkbox"/> domestic water supply	<input type="checkbox"/> navigation
<input type="checkbox"/> contact recreation	<input type="checkbox"/> picnic/park activities
<input type="checkbox"/> fishing	<input type="checkbox"/> other, specify: Click to enter text.

- 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

Attachment 1
Application Payment Voucher

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number: 701115
Trace Number: 582EA000606228
Date: 04/12/2024 12:12 PM
Payment Method: CC - Authorization 000003894G
Voucher Amount: \$300.00
Fee Type: WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - RENEWAL
ePay Actor: JULIE KAFICAS

Payment Contact Information

Name: JENNIFER CARRUTHERS
Company: SPIRIT ENVIRONMENTAL
Address: 20465 STATE HIGHWAY 249 SUITE, HOUSTON, TX 77070
Phone: 281-664-2490

Site Information

Site Name: MCA LA PORTE SITE
Site Address: 12220 STRANG RD, LA PORTE, TX 77571 9740
Site Location: HARRIS COUNTY

Customer Information

Customer Name: MITSUBISHI CHEMICAL AMERICA INC
Customer Address: 1999 BRYAN ST STE 900, DALLAS, TX 75201 3140
State Tax ID: 32077995036

Other Information

Program Area ID: WQ0005265000
Comments: Permit renewal

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number:	701116
Trace Number:	582EA000606228
Date:	04/12/2024 12:12 PM
Payment Method:	CC - Authorization 000003894G
Voucher Amount:	\$15.00
Fee Type:	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE
ePay Actor:	JULIE KAFICAS

Payment Contact Information

Name:	JENNIFER CARRUTHERS
Company:	SPIRIT ENVIRONMENTAL
Address:	20465 STATE HIGHWAY 249 SUITE, HOUSTON, TX 77070
Phone:	281-664-2490

Attachment 2
Plain Language Form (TCEQ Form 20972)



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary 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 as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their 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 the applicant 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.

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.

Mitsubishi Chemical America Inc. (CN605866037) operates MCA La Porte Site (RN101049518), a resin manufacturing facility. The facility is located at 12220 Strang Road, in La Porte, Harris County, Texas 77571-9740. Mitsubishi Chemical America Inc. is applying to renew the Wastewater Permit (WQ0005265000) for the site. No changes to limits or operating conditions have been requested in the application.

Discharges from the facility are expected to contain copper, dissolved solids, residual chlorine, sulfate, suspended solids, and zinc. Wastewaters from cooling tower blowdown, reactor unit cooling water, water treatment wastes, and neutralization tank wastewater will be treated by various wastewater-dependent processes to achieve appropriate pollutant levels and wastewater conditions before introduction to a common tank for 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.

Mitsubishi Chemical America Inc. (CN605866037) opera MCA La Porte Site RN101049518, una planta de fabricación de resina. La instalación está ubicada en 12220 Strang Road, en La Porte, Condado de Condado de Harris, Texas 77571-9740. Mitsubishi Chemical America Inc está solicitando la renovación del Permiso de Aguas Residuales (WQ0005265000) para el sitio. No se han solicitado cambios en los límites ni en las condiciones de funcionamiento de la solicitud. <<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan cobre, sólidos disueltos, cloro residual, sulfato, sólidos suspendidos y zinc. Las aguas residuales de la purga de la torre de enfriamiento, el agua de enfriamiento de la unidad del reactor, los desechos del tratamiento de agua y las aguas residuales del tanque de neutralización. estará tratado por mediante diversos procesos en función de las aguas residuales para alcanzar los niveles de contaminantes y las condiciones de las aguas residuales adecuados antes de su introducción en un tanque común para su vertido..

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

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 or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

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 are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Attachment 3
Lease Agreement (CONFIDENTIAL)

APPENDIX 1

Lease Agreement – CONFIDENTIAL MATERIAL

(Corresponds to Industrial Administrative Report 1.1, Items 8.f., pages 7 and 8)

FIFTH AMENDMENT OF LEASE

THIS FIFTH AMENDMENT OF LEASE dated this 20th day of March, 1998, by and between E. I. DUPONT DE NEMOURS AND COMPANY, a Delaware corporation, of 1007 Market Street, Wilmington, Delaware, 19898 (hereinafter "DUPONT"), and NOLTEX L.L.C. a Limited Liability Company having its principal office and place of business at 400 North St. Paul, Dallas, Texas, 75201, (hereinafter "TENANT").

W I T N E S S E T H

WHEREAS, DUPONT and TENANT entered into a Ground Lease dated August 12, 1994, and amended by Amendments dated April 6, 1995, June 9, 1995, August 11, 1995, and November 8, 1996, (hereinafter the "Lease");

WHEREAS, TENANT has exercised its option to construct an Outfall pursuant to Section 3 of the Lease;

WHEREAS, the parties desire to further amend the Lease;

NOW, THEREFORE, the Lease is amended as follows:

(1) The legal description of the Outfall easement area set forth in Exhibit "A" attached hereto (hereinafter the "Easement Area") shall be added to Exhibit "B" of the Lease as an additional appurtenant right;

(2) The total length of the above Easement Area is seven hundred seventy eight and eighty seven one hundreths (778.87) feet;

TENANT shall pay DUPONT a one time fee for the Easement Area the amount of two hundred (\$200.00) per rod for the length of the Easement Area;

(3) All other terms and conditions of the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Fifth Amendment of Lease the day and year above-written.

WITNESS:

Don L. Bo

E. I. DUPONT DE NEMOURS
AND COMPANY

By: *Mark*

Title: *MGR CR*

WITNESS:

Robert L. Jamer

NOLTEX L.L.C.

By: *R/L*

Title: *Director - Operator*

HHS61.61

CENTERLINE DESCRIPTION

PIPELINE EASEMENT

Being the centerline of a pipeline easement over and across Lot 58 and Lot 1, Strang Subdivision as recorded in Volume 78 at Page 22 of the Harris County Deed Records, and across Strang Road, as vacated, abandoned and closed by Harris County Commissioners Court, said Lot 58 deeded to E. I. Du Pont de Nemours and Company by instrument recorded in Volume 4149, at Page 374, Harris County Deed Records, and Lot 1 as deeded to E. I. Du Pont de Nemours and Company by instruments recorded in Volume 8025, at Page 318; Volume 2481, at Page 217; Volume 8111, at Page 60; and Volume 2488, at Page 2191, all in the Harris County Deed Records, said centerline being more particularly described as follows:

BEGINNING at the centerline of the South end of an existing drainage culvert in the centerline of "Reserved Right Description No. 20 - Drainage 'West' Ditch", as described in the original lease agreement between E. I. Du Pont de Nemours and Company and Noltex, L.L.C., said point having Du Pont La Porte plant site coordinates, North 4600 and West 5370, said point also having UTM coordinates 3,287,557.5916 and 302,461.6763;

Thence, North, a distance of 74.0 feet, crossing the abandoned right-of-way of Strang Road, to a point in the centerline of the North end of an existing drainage culvert, said point having Du Pont La Porte plant site coordinates, North 4674 and West 5370, said point also having UTM coordinates 3,287,580.1486, and 302,461.6150;

Thence, North 45 degrees 00 minutes West, a distance of 24.04 feet to a point for corner adjacent to an existing 7 foot high chain link fence, said point having Du Pont La Porte plant site coordinates, North 4691 and West 5387, said point also having UTM coordinates 3,287,585.3162 and 302,456.4193;

Thence, North, continuing along and parallel to an existing 7 foot high chain link fence, a distance of 542.0 feet to a point for corner, said point having Du Pont La Porte plant site coordinates, North 5233 and West 5387, said point also having UTM coordinates 3,287,750,5294 and 302,455.9708;

CENTERLINE DESCRIPTION, CONTINUED

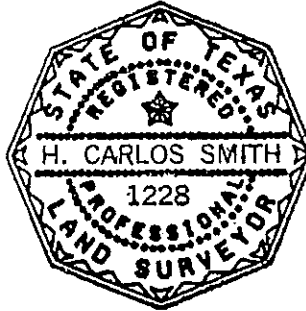
Thence, North 45 degrees 00 minute East, a distance of 2.83 feet to a point for corner at the end of a concrete curb for a rip-rap ditch lining, said point having Du Pont La Porte plant site coordinates North 5235 and West 5385, said point also having UTM coordinates 3,287,751.1407 and 302,455.3627;

Thence, North, a distance of 136.0 feet to a point on the shore line of San Jacinto Bay, said point having Du Pont La Porte plant site coordinates North 5371 and West 5385, said point also having UTM coordinates 3,287,792.5964 and 302,455.2502 for the POINT OF ENDING of this easement.

PREPARED PARTIALLY FROM A SURVEY ON THE GROUND AND PARTIALLY FROM THE LEASE PLAT. UTM COORDINATES ARE 1983 DATUM IN METERS, ZONE 15, SCALE FACTOR 1.000074, BEARINGS ARE DU PONT LA PORTE PLANT SITE BEARINGS.

H. Carlos Smith

H. Carlos Smith, P.E., R.P.L.S.
Job No. 3142-97
January 20, 1998.
Revised February 17, 1998



GROUND LEASE

THIS GROUND LEASE, (the "Lease") entered into this 12th day of August, 1994, is by and between E. I. DU PONT DE NEMOURS AND COMPANY, a Delaware corporation, having its principal office and place of business at 1007 Market Street, Wilmington, Delaware 19898 ("DUPONT"), and NOLTEX L.L.C., a Limited Liability Company, having its principal office and place of business at 400 North St. Paul, Dallas, Texas 75201 ("TENANT").

W I T N E S S E T H :

WHEREAS, DUPONT is the owner of a tract of land situated in the County of Harris, State of Texas, commonly known as the LaPorte Plant; and

WHEREAS, TENANT is purchasing certain assets contained within a portion of said land pursuant to an Asset Purchase Agreement executed between DUPONT and THE NIPPON SYNTHETIC CHEMICAL INDUSTRY CO., LTD. ("NIPPON GOHSEI") dated August 12, 1994 (the "Agreement"), which Agreement has been assigned to TENANT; and

WHEREAS, it is the intent of the parties hereto that DUPONT shall lease a portion of said land to TENANT upon and subject to the conditions and limitations hereinafter expressed; and

NOW, THEREFORE, the parties hereto, intending to be legally bound, agree as follows:

SECTION 1. PREMISES

A. PREMISES LEASED.

DUPONT does hereby demise, lease, and let unto TENANT and TENANT does hereby demise, lease and take from DUPONT, for the term and upon the covenants, terms and conditions hereinafter set forth, that certain parcel or tract of land situated in the County of Harris, State of Texas, and being more particularly shown on Exhibit "A", attached hereto and made a part hereof, describing the leased premises ("LEASED PREMISES") and the appurtenances (the "Appurtenances") more particularly described in Exhibit "B", attached hereto and made a part hereof. The term for the Appurtenances shall be for the term of this Lease except as otherwise provided herein.

The LEASED PREMISES and Appurtenances are subject to:

(1) all matters of record and any state of facts that is apparent from the Survey dated April, 1994 and legal description by H. Carlos Smith attached hereto as Exhibit "A" (the "SURVEY");

(2) zoning laws, ordinances, resolutions, and regulations of all boards, bureaus, or commissions and bodies of any municipal, county, state or federal sovereign now or hereafter having or acquiring jurisdiction of the afore-described property and the use and enjoyments thereof;

(3) the condition and state of repair of the afore-described property as the same may be on the date first above written;

(4) all taxes, assessments, water meter and water charges, and sewer rents, if any, fixed or not fixed commencing as of the date of this Lease (the "Closing Date");

(5) Those reservations by DUPONT as are more particularly described in Section 2 below.

DUPONT will cooperate in TENANT'S efforts to obtain any and all licenses, permits, or certificates needed or required for the parties respective interests or use of the

LEASED PREMISES.

The LEASED PREMISES and Appurtenances are hereinafter referred to as the "LEASED PROPERTY".

B. IMPROVEMENTS

Notwithstanding anything to the contrary contained herein, TENANT shall be the owner and record title owner for all purposes of the Buildings, Fixtures, and Improvements and other assets described on Exhibit E, attached hereto and incorporated herein as well as all improvements subsequently constructed by TENANT (the "Improvements") subject to Section 13 of this Lease.

SECTION 2. RESERVED RIGHTS AND PROPERTY.

(a) DUPONT reserves those rights within the LEASED PREMISES that are more particularly described in Exhibit "C", attached hereto and made a part hereof. All rights reserved hereunder shall be for DUPONT and shall not be assigned in whole or in part without the consent of TENANT which consent shall not be unreasonably withheld.

(b) DUPONT retains the ownership of the property and improvements as set forth on Exhibit F attached hereto and made a part hereof.

SECTION 3. CONTINGENCIES.

The following contingency is provided to TENANT during the term of this Lease.

Until December 31, 1996 TENANT shall have an option to proceed with the study and construction of a new permitted Outfall and related drainage system (the "OUTFALL") along ways summarily shown on Exhibit G. Much of the design and detail work for the OUTFALL has not been completed as of the date of this Lease. The parties agree to continue discussions around this issue within the following framework:

1. DUPONT would stop using Section A as shown on Exhibit G and turn it over to TENANT for its use;

2. Section B as shown on Exhibit G needs to be studied to determine whether it can be made available for TENANT'S use;

3. DUPONT will grant a right of way to the bay along Section C as shown on Exhibit G in a location to be determined. If TENANT routes such right of way across the lands of Harris County, TENANT is responsible for obtaining the necessary easement from Harris County:

4. The OUTFALL from a point to be determined in Section B and through the length of Section C to the Bay shall meet the following design standards, at a minimum;

- a) Double walled pipeline to prevent leakage.
- b) Located adjacent to or in the 004 outfall-exact location to be determined.
- c) Leak detection devices must be utilized.

5. A civil engineering study needs to be completed to determine how to design the OUTFALL and separate DUPONT'S and TENANT'S stormwater runoff;

6. TENANT shall pay all costs related to the design and construction of the OUTFALL, including but not limited to the costs of the engineering studies, installation of the OUTFALL, permitting the Outfall, and any costs incurred by DUPONT outside of the LEASED PREMISES to ensure separation of stormwater runoff between the LEASED PREMISES and DUPONT'S LaPorte Plant.

TENANT must notify DUPONT not later than December 31, 1996 of TENANT'S decision to exercise its option and to proceed with the design and construction of the OUTFALL. Such design and construction must be completed within twenty-four (24) months of notification of TENANT'S decision to exercise this option. Upon exercise, such right will be added to Exhibit "B".

SECTION 4. RELOCATION.

Any rights that may be granted pursuant to this

Lease excluding the boundary lines of the LEASED PREMISES, may from time to time be moved and relocated by DUPONT, by DUPONT providing the TENANT with at least sixty (60) days' written notice of the proposed move and TENANT consenting to the move. Such consent to any move shall not be unreasonably withheld by TENANT. The cost of any such movement or relocation of a right shall be borne by DUPONT.

SECTION 5. CONSTRUCTION OF FACILITIES.

(a) During the term of this Lease, TENANT agrees that any improvements that may be erected on the LEASED PROPERTY by TENANT, including, but not limited to, all plumbing, electrical, heating, air-conditioning and ventilation equipment and systems, and all other equipment, will be installed, operated, and maintained in accordance with the law and with the regulations and requirements of any and all governmental authorities, agencies, or departments, having jurisdiction thereof, without cost or expense to DUPONT. All improvements constructed by TENANT or for the TENANT during the term of this Lease shall be owned by TENANT. TENANT shall take all reasonable actions to provide that any improvements constructed hereunder shall not materially interfere with DUPONT'S use and enjoyment of its owned facilities for chemical manufacturing or any other rights reserved by DUPONT under this Lease. During the term of this Lease, DUPONT shall take all reasonable actions to provide that any improvements constructed by DUPONT or for DUPONT after the date of this Lease within fifty (50) feet of the southern and western boundaries, within one hundred fifty (150) feet of the eastern boundary, and between the southern side of Strang Road and the northern boundary of the LEASED PREMISES shall not materially interfere with TENANT'S use and enjoyment of the LEASED PREMISES or any other rights of TENANT under this Lease.

(b) If, at any time during the term of this Lease, any

liens or claims of mechanics, laborers, or material men shall be filed against the LEASED PROPERTY, or any part or parts thereof, for any work, labor, or materials furnished, alleged to have been furnished or to be furnished pursuant to the written agreement by TENANT or any person holding thereunder, TENANT, within thirty (30) days (or lesser time if the LEASED PROPERTY is threatened with sale or foreclosure) after the date TENANT receives notice, of the filing or recording of any such lien from DUPONT or any other party, or the filing or recording of any notice of intention to file a lien or claim of lien, shall cause the same to be discharged by payment, bond, or otherwise; or at the option of TENANT, TENANT shall deposit, in trust, with DUPONT or with a title company licensed to do business in the State of Texas, a sum of money equal to the amount of such recorded lien, plus ten percent (10%) thereof, to be applied:

(i) To such portion of the amount, if any, as may be determined to be due and owing to the lienor in a final judgment of a court of competent jurisdiction, when and if such final judgment is no longer subject to appeal, or

(ii) To the payment to the lienor of all or a portion of said sum, if any, provided written notice shall be sent by TENANT expressly authorizing such payment.

(c) In the event that TENANT contests any lien or claim, TENANT shall prosecute the contest with reasonable diligence, and TENANT shall at all times effectually stay or prevent any official or judicial sale of the LEASED PROPERTY and TENANT shall pay or otherwise satisfy any final judgment (unless TENANT shall appeal same, in which event the last appeal shall be the determining factor) which may be entered against it and thereafter promptly procure and record satisfaction of the release of the lien. Subject to TENANT'S rights as set forth in this Lease, if TENANT shall ultimately fail to procure a discharge of any such lien, DUPONT after at least thirty (30) days' written notice to TENANT (or lesser time if the LEASED PROPERTY is threatened with sale or

foreclosure), may procure the discharge of such lien by payment or otherwise, and all costs and expenses which DUPONT may reasonably sustain thereby shall be paid by TENANT as additional rent under the provisions of this Lease. In the event that any action shall be brought against DUPONT to enforce any such lien, and provided TENANT may exercise all of its rights set forth in this Lease, and provided further that TENANT shall have received written notice of such action and an opportunity to defend the same, TENANT shall pay any judgment that may be entered against DUPONT, and, in addition thereto, shall pay all costs and expenses that may be reasonably incurred by DUPONT in the defense of any such action, provided such judgment shall be final and no longer subject to appeal.

(d) The requirements provided in Section 5 herein above shall also apply to any construction pursuant to Section 3 "CONTINGENCIES" or such activities as granted in Exhibit "B".

(e) DUPONT agrees that TENANT may construct any type of facilities or make any type of improvements which are consistent with the use allowed herein pursuant to Section 9. Any plans for construction or expansion must be submitted for review by DUPONT prior to their implementation. All plans for excavation of any kind must be reviewed by DUPONT prior to commencement to ensure that any new excavation or pipeline is recorded in the LaPorte Plant excavation records and does not interfere with recorded preexisting structures or uses. DUPONT shall notify TENANT in a timely manner if such plans for excavation might interfere with any recorded pre-existing structures or uses. All such plans for construction and/or expansion and the use of the LEASED PROPERTY must comply with applicable laws, rules, and regulations.

SECTION 6. TERM.

The initial term (the "Initial Term") of this Lease shall be for a period of forty (40) years commencing on

August 12, 1994 and terminating on August 11, 2034, provided, however, this Lease shall automatically be extended for a period of forty (40) years (the "Renewal Period") unless TENANT or any Registered Mortgagee (as hereinafter defined in Section 31) provides DUPONT with written notice of its intent not to extend this Lease at least six (6) months prior to the expiration of the Initial Term. During the Renewal Period, TENANT or any Registered Mortgagee may terminate the forty (40) year term at any time upon one (1) year's prior written notice to DUPONT. Upon expiration of the Renewal Period, this Lease shall continue unless TENANT, or any Registered Mortgagee, gives notice not to continue this Lease no later than six (6) months prior to the expiration of the Renewal Period. Thereafter, this Lease shall continue unless terminated by either party upon not less than two (2) years' prior written notice.

Any future interests created or contemplated by this Lease which are determined to be subject to the Rule Against Perpetuities shall, if they have not theretofore vested, be extinguished whenever twenty-one (21) years less one day shall have elapsed after the death of the survivor of Queen Elizabeth II of the House of Windsor, England, and Phillip Mountbatten, Prince Phillip, Duke of Edinburgh, and their children and grandchildren who are living at the date of the execution of this Lease.

SECTION 7. RENT.

TENANT shall pay to DUPONT as rent for the LEASED PROPERTY the sum of \$3,500.00 per acre per year with such sum being escalated thereafter in accordance with a formula contained in Exhibit "D" of this Lease. DUPONT and TENANT agree that the LEASED PREMISES consists of 14.334 acres for the purposes of the rental calculation provided herein. If requested by either party in writing no later than five (5) months prior to the expiration of the initial forty (40) year

period, the parties will review the annual rental amount and escalation formula and adjust either or both, if necessary, to reflect then current rental conditions, but if the parties cannot agree within four (4) months after the request by either party, they shall appoint an independent expert to decide the matter whose decision shall be binding upon the Parties.

The independent expert chosen pursuant to this section shall be an MAI appraiser, or the then equivalent valuation expert, and have at least ten (10) years of experience evaluating industrial property in the Harris County, Texas area. The fees and expenses of the independent expert shall be split equally. The final determination of the renewal rental rate and escalation formula shall be binding on DUPONT and TENANT.

As used in this Lease, the term "current rental conditions" shall mean the effective market rental rate for the LEASED PREMISES as to which such rate is being determined. Such rate shall be established by averaging the annual rental rates (the "Comparable Rate") then being paid under leases then being entered into in the LaPorte industrial area of Harris County, Texas for property comparable to the property for which the current rental conditions are being determined ("Comparable Property") taking into consideration all pertinent factors.

Rental shall be prorated for the "stub" period (from the Closing Date until December 31, 1994) and shall be payable at Closing, as defined in the Agreement. Thereafter, the rent shall be due in lump sum in advance semiannually on January 1 and July 1 at the address herein contained or at such other place or places as DUPONT shall from time to time give TENANT written notice at least thirty (30) days in advance.

SECTION 8. TAXES AND ASSESSMENTS.

(a) Commencing with the term hereof and ending with the expiration or earlier termination of this Lease, TENANT shall reimburse DUPONT for all real estate taxes and any and all assessments, including special assessments, upon the LEASED PROPERTY, and any tax that may be levied, assessed or imposed by the State of Texas or any political or taxing subdivision thereof, and any payment that may be made by DUPONT in lieu of taxes pursuant to any agreement with the State of Texas or any political or taxing subdivision thereof, upon or measured by the land, buildings or other improvements, land use, rents hereunder, or the income attributable to any such or which are or may become a lien upon, the LEASED PROPERTY, and all other governmental charges levied against LEASED PROPERTY which becomes due and payable during the term hereof, other than Federal, State, or local income or franchise taxes. TENANT'S obligation to pay or reimburse DUPONT for taxes, special assessments and other impositions or contractual payments to taxing authorities shall be contingent upon and subject to the following provisions and conditions:

(i) TENANT may take the benefit of the provisions of any statute or ordinance permitting any special assessment to be paid over a period of time, and TENANT shall be obligated to pay only the installment of such special assessments as shall become due and payable during the term of this Lease and as provided in Section 8(a)(ii) below. Subject to Section 8(a)(ii) any installment falling due after the expiration or termination of the term hereof shall be payable by DUPONT, even though such unpaid installments shall constitute a lien or liens until paid.

(ii) TENANT shall pay or reimburse DUPONT for its prorata share of taxes, special assessments, other impositions or contractual payments to taxing authorities or installments thereof, and any charges referred to in Section 1A(4) attributable to the LEASED PROPERTY, which become due and payable during the years in which this Lease commences

and ceases, such prorata share to be determined on the basis which the number of months of the then current tax year for which TENANT is to pay rent shall bear to the entire number of months in said tax year. DUPONT will provide TENANT with the applicable supporting documents used in determining TENANT'S pro-rata share of taxes, assessments or charges.

(iii) TENANT shall pay or reimburse DUPONT for taxes, assessments and other installments, or contractual payments to taxing authorities, or impositions on the LaPorte Plant or the LEASED PREMISES apportioned by the relationship that the area of the LEASED PREMISES bears to the entire LaPorte Site exclusive of any taxable improvements. In calculating the taxes owed by TENANT pursuant to this Section, TENANT shall be entitled to the benefit of all tax abatement agreements, credits, rebates, orders, ordinances, or other reductions specific to the LEASED PREMISES, and TENANT shall also be entitled to the pro-rata benefit of all tax abatement agreements, credits, rebates, orders, ordinances or other reductions granted to the DUPONT LaPorte Plant generally, including without limitation, the Industrial District Agreement effective January 1, 1994 between the City of LaPorte, Texas and DUPONT. Provided however, in no event shall TENANT be entitled to the benefit of any tax abatement agreements, credits, rebates, orders, ordinances, or other reductions granted to DUPONT with respect to the DUPONT LaPorte Plant after the date of this Lease which results from any investment, improvements, or installations, or other actions taken by DUPONT.

(b) Except if contested as hereinafter provided, TENANT, upon due and reasonable notice by DUPONT or from the taxing authority, shall pay each tax, assessment, or installment thereof, and other imposition before any fine, penalty, interest, or costs may be added for nonpayment.

(c) TENANT shall not be required to pay any tax, assessment or other imposition required by the terms of this Lease to be paid so long as TENANT at its own expense shall,

in good faith and with due diligence, contest the same or the validity thereof by appropriate legal proceedings. In such a case, TENANT may institute such proceedings in its own name, and TENANT shall indemnify DUPONT and save it harmless from and against all costs, charges or liabilities in connection with any such proceeding; provided, however, that TENANT shall take no action and shall delay no proceeding so as to jeopardize title of DUPONT to LEASED PROPERTY or its other lands situated in the State of Texas. TENANT shall give DUPONT prompt written notice of the commencement of any such proceedings.

(d) After any direct payment to any taxing authority, TENANT shall furnish to DUPONT, within forty-five (45) days after the date when any tax, special assessment or other imposition is payable, copies of the official receipts, or other reasonable proof satisfactory to DUPONT evidencing payment thereof.

(e) TENANT shall pay any and all taxes on its personal property, buildings, and other improvements included in the LEASED PROPERTY directly to the taxing authority.

(f) DUPONT agrees, at TENANT'S expense, to reasonably cooperate with TENANT in connection with the LEASED PROPERTY on issues concerning taxation, including, but not limited to, reasonably cooperating with TENANT in connection with qualifying the LEASED PROPERTY for any ad valorem tax exemptions, credits, reductions, or rebates which may be available with respect thereto.

SECTION 9. USE.

TENANT shall use the LEASED PREMISES solely for chemical manufacturing. TENANT will not manufacture fully hydrolyzed polyvinyl alcohol. TENANT shall not use or occupy LEASED PROPERTY or permit the same to be used or occupied contrary to any applicable governmental statute, rule, order, ordinance or regulation applicable thereto or in any manner

which would violate any certificate of occupancy affecting the same or which would constitute a public or private nuisance or waste.

SECTION 10. INDEMNIFICATION

(a) Except as otherwise provided in the Plant Services Contract, DUPONT agrees to indemnify, defend and hold harmless TENANT (and its directors, officers, shareholders, employees, affiliates, agents and assigns) from and against any and all losses, liabilities, damages, taxes, deficiencies, costs or expenses, including interest, penalties, attorneys' fees and disbursements, liabilities, damages, deficiencies, costs or expenses ("Loss") based upon, arising out of or otherwise in respect of any breach of any covenant, obligation or agreement of DUPONT contained in Section 11 of this Lease.

(b) Except as otherwise provided in the Plant Services Contract, TENANT agrees to indemnify, defend and hold harmless DUPONT (and its directors, officers, shareholders, employees, affiliates, agents and assigns) from and against any and all Loss as defined in Section 10(a) above based upon, arising out of or otherwise in respect of any breach of any covenant, obligation or agreement of TENANT contained in Section 11 of this Lease.

(c)(i) Except as otherwise provided in the Plant Services Contract or in Section 10(a) above or in Section 10(c)(ii) below, TENANT agrees to defend, indemnify and hold harmless DUPONT (including, its officers, directors, employees, subcontractors and agents) from and against any and all liabilities (including third party liabilities), claims, injuries (including death resulting therefrom), property damage, fine, penalty or assessment by any public agency, insofar as not prohibited by law, cost or expense (including costs of defense, settlement and reasonable attorneys' fees) ("Loss") which (1) are directly or

indirectly caused by any act or omission by TENANT, its agents, employees or subcontractors associated with, or arising from the performance of this Lease or the use of the LEASED PROPERTY, including any failure to comply with any pertinent federal, state or local law, statute, regulation, rule or (2) are caused jointly by any such act or omission by TENANT, its agents, employees or subcontractors and any such act or omission by any third party or third parties acting by, through or under TENANT. The term "liabilities" employed in the preceding sentence, and TENANT'S indemnification obligation, includes any strict liability and other liability without fault, however named, asserted against DUPONT.

(c) (ii) Except as otherwise provided in the Plant Services Contract or in Section 10(b) or Section 10(c) (i) above, DUPONT agrees to defend, indemnify and hold harmless TENANT (including its officers, directors, employees, subcontractors and agents) from and against any and all liabilities (including third party liabilities), claims, injuries (including death resulting therefrom), property damage, fine, penalty or assessment by any public agency, insofar as not prohibited by law, cost or expense (including costs of defense, settlement and reasonable attorneys' fees) ("Loss") which (1) are directly or indirectly caused by any act or omission by DUPONT, its agents, employees or subcontractors associated with, or arising from the performance of this Lease or the use of the LEASED PROPERTY, including any failure to comply with any pertinent federal, state or local law, statute, regulation, rule or (2) are caused jointly by any such act or omission by DUPONT, its agents, employees or subcontractors and any such act or omission by any third party or third parties acting by, through or under DUPONT. The term "liabilities" employed in the preceding sentence, and DUPONT's indemnification obligation, includes any strict liability and other liability without fault, however named, asserted against TENANT.

(d) (i) Promptly after receipt by any party hereto (the

"Indemnitee") of notice of any demand, claim or circumstances which, with the lapse of time, would give rise to a claim or the commencement (or threatened commencement) of any action, proceeding or investigation (an "Asserted Liability") that may result in a Loss, the Indemnitee shall give notice thereof (the "Claims Notice") to the other party obligated to provide indemnification pursuant to Section 10(a), 10(b), 10(c)(i) or 10(c)(ii) (the "Indemnifying Party"). The Claims Notice shall describe the Asserted Liability in reasonable detail and shall indicate the amount (estimated, if necessary) of the Loss that has been or may be suffered by the Indemnitee.

(d)(ii) The Indemnifying Party may elect to compromise or defend, at its own expense and by its own counsel, any Asserted Liability. If the Indemnifying Party elects to compromise or defend such Asserted Liability, it shall within thirty (30) days (or sooner, if the nature of the Asserted Liability so requires) notify the Indemnitee of its intent to do so, and the Indemnitee shall cooperate, at the request of and at the expense of the Indemnifying Party, in the compromise of, or defense against, such Asserted Liability. If the Indemnifying Party elects not to compromise or defend the Asserted Liability or fails to notify the Indemnitee of its election as herein provided or contests its obligation to indemnify under this Agreement, the Indemnitee may, at the expense of the Indemnifying Party, pay, compromise or defend such Asserted Liability. The Indemnifying Party may settle or compromise any claim without the consent of the Indemnitee only if, as part of such settlement, the Indemnitee shall receive a full and unconditional release reasonably satisfactory to the Indemnitee from the Asserted Liability but the Indemnitee shall not unreasonably withhold its consent to the settlement or compromise of any claim. In any event, the Indemnitee may participate, at its own expense, in the defense of such Asserted Liability. If the Indemnifying Party chooses to defend any claim, the Indemnitee shall make

available to the Indemnifying Party any books, records or other documents within its control that are necessary or appropriate for such defense, and shall cooperate with the Indemnifying Party in the defense, compromise and settlement of the Asserted Liability.

SECTION 11. ENVIRONMENTAL PROCEDURES AND RESPONSIBILITY.

(a) As used in this Lease:

(i) "Environmental Laws" means all federal, state or local laws, rules or regulations relating to pollution or protection of human health or the environment (including, without limitation, ambient air, soil, surface water, groundwater, wetlands, land or subsurface strata), including, without limitation, laws or regulations relating to Releases or threatened Releases of Hazardous Material, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, recycling or handling of Hazardous Material.

(ii) "Hazardous Material" means any (A) petroleum or petroleum products, radioactive materials, asbestos in any form that is or could become friable, aboveground or underground storage tanks, and equipment that contains polychlorinated biphenyls ("PCBs"); (B) any chemicals, materials or substances which are now defined as or included in the definition of "Hazardous Substances", "Hazardous Wastes", "Hazardous Materials", "Extremely Hazardous Wastes", "Restricted Hazardous Waste", "Toxic Substances", "Toxic Pollutants", "Pollutants", "Contaminants" or words of similar import, under any Environmental Law; and (C) any other chemical, material, substance or waste, exposure to which is prohibited, limited or regulated under any Environmental Law.

(iii) "Governmental Authority" means any court, tribunal, arbitrator, authority, agency, commission, official or other instrumentality of the United States or any state, province, county, city or other political subdivision.

(iv) "Release" means any release, spill, emission, leaking, injection, deposit, disposal, discharge, dispersal, leaching or migration into the atmosphere, soil, surface water, groundwater or property.

(b) DUPONT shall be responsible for and shall bear all liability, damages and costs which may be sustained or suffered by TENANT arising out of, based upon, or by reason of the generation, use, storage, treatment, disposal, discharge, spillage, Release, or threat of Release of any Hazardous Material resulting from (i) DUPONT'S use or operation of the LEASED PREMISES or the LEASED PROPERTY or of any machinery, equipment, facilities, pipelines or structures located thereon, on or prior to the Closing Date, (ii) DUPONT'S disposal of wastewater from the LEASED PREMISES or the LEASED PROPERTY or from any machinery, equipment, facilities, pipelines or structures located thereon, on or prior to the Closing Date, (iii) DUPONT'S use or operation of the LaPorte Plant property or facilities adjacent to or in close proximity to the LEASED PREMISES, whether prior to or after the Closing Date, (iv) DUPONT'S use of any of the rights retained under Exhibit C, as it may be modified by the parties, or (v) the use or operation by DUPONT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LaPorte Plant or the LEASED PREMISES, except as otherwise provided in the Plant Services Contract, and excluding any liability, damages and costs resulting from (A) the use by TENANT of any of the rights granted under Exhibit B as it may be modified by the parties, or (B) the use or operation by TENANT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LEASED PREMISES or the LaPorte Plant. TENANT shall be responsible for and shall bear all liability, damages and costs which may be sustained or suffered by DUPONT arising out of, based upon, or by reason of the generation, use, storage, treatment, disposal, discharge, spillage, Release, or threat of Release, of any Hazardous

Material resulting from (i) the use or operation by TENANT of the LEASED PREMISES or LEASED PROPERTY or of any machinery, equipment, facilities, pipelines or structures located thereon, after the Closing Date, (ii) the use by TENANT of any of the rights granted under Exhibit B, as it may be modified by the parties, or (iii) the use or operation by TENANT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LEASED PREMISES or at the LaPorte Plant, except as otherwise provided under the Plant Services Contract, and excluding any liability, damages and costs resulting from (A) DUPONT'S use of any of the rights retained under Exhibit C, as it may be modified by the parties, or (B) the use or operation by DUPONT of any machinery, equipment, facilities, pipelines or structures after the Closing Date at the LaPorte Plant or the LEASED PREMISES. After the Closing Date, except as otherwise provided under the Plant Services Contract, DUPONT shall continue to own, operate, have access to, and shall be responsible for all liabilities, damages and costs associated with the operation of the No. 3 Deep Well and associated area retained by DUPONT.

(c) NIPPON GOHSEI has had conducted, at its sole cost and expense and in cooperation with DUPONT, an independent environmental audit (the "Environmental Audit") of the LEASED PREMISES and the facility located thereon and certain other areas of the LaPorte Plant performed by Dames & Moore as summarized in five reports, the first of which is entitled, "Final Report Phase 1 Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated April 29, 1994, the second of which is entitled "Limited Phase II Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated April 29, 1994, as amended by a letter dated July 14, 1994, from William P. Overesch to Junji Masuda enclosing a Revised Table 3, the third of which is entitled "East Ditch Sediment Assessment Selar® Unit Process Area and Associated

Facilities, LaPorte, Texas", dated June 2, 1994, the fourth of which is entitled "Cone Penetration Test Baseline Study Selar® Unit Process Area and Associated Facilities LaPorte, Texas", dated June 30, 1994 and the fifth of which is entitled "Supplement Report Phase I Environmental Site Assessment Selar® Unit Process Area and Associated Facilities LaPorte, Texas" dated August 1, 1994 (the "Environmental Reports") copies of all of which have been provided to DUPONT.

(d) DUPONT and TENANT accept the data contained in the Environmental Reports, as representing the most current data, but the parties do not necessarily accept any of the opinions or conclusions contained in the Environmental Reports. The parties agree that the data contained in the Environmental Reports establish environmental baseline conditions at the LEASED PREMISES and the facility located thereon and the area referenced in the "East Ditch Sediment Assessment Selar® Unit Process Area and Associated Facilities, LaPorte, Texas," dated June 2, 1994; there is no agreement between the parties concerning the opinions or conclusions contained in the Environmental Reports. The parties shall use the same field sampling procedures and laboratory analytical test methodology and procedures to obtain environmental data in the future as was used in the Environmental Audit. With respect to constituents reported in the data in the Environmental Reports, DUPONT shall be responsible for and shall bear all liability, costs and damages which may be sustained or suffered by TENANT resulting from the presence of such constituents at the levels reported in the data; with respect to increases in such constituents after the Closing Date, each party shall be responsible for any increases in the constituents that it causes. If after the Closing Date there are increases in the constituents and both parties appear to have contributed to the increase but the proportion of each party's contribution is uncertain, then the parties shall share all liability, costs and damages resulting from

the increase of such constituents proportionately according to the amount of time of each party's possession of the facility located on the LEASED PREMISES.

(e) Periodic monitoring at the LEASED PREMISES will be accomplished through the use of cone penetrometer technology ("CPT") down to sand unit 3. Temporary or permanent monitoring wells will not be installed unless the parties agree that the results from CPT monitoring of sand unit 3 indicate a need for deeper monitoring. DUPONT and TENANT will meet periodically to determine the scope, design and timing for periodic monitoring at the LEASED PREMISES. The costs of periodic monitoring will be shared equally by DUPONT and TENANT, except that to the extent DUPONT and TENANT cannot agree on the scope, design or timing of periodic monitoring, either party may conduct such periodic monitoring within the LEASED PREMISES at its own expense which may include the use of CPT and/or temporary monitoring wells but not permanent monitoring wells. If temporary monitoring wells are used, the wells shall be permanently plugged and sealed promptly after the samples are obtained and sufficient time has passed for the laboratory to analyze the samples. If either party conducts periodic monitoring at its own expense, it shall make available to the other party, for inspection and/or copying, data generated in connection with such periodic monitoring at the LEASED PREMISES. All applicable industry and regulatory standards shall be applicable to all periodic monitoring conducted at the LEASED PREMISES.

(f) DUPONT agrees to make available to TENANT, for inspection and/or copying, all public data from soil and groundwater monitoring at the LaPorte Plant. All applicable industry and regulatory standards shall be applicable to all such monitoring conducted at the LaPorte Plant.

(g) The parties recognize that in connection with the operation of their chemical plants and facilities there could be occasional chemical releases to the air of limited

duration ("Excursions") which may require shutdown or restriction of operations and/or restriction of movement or evacuation of personnel. Notwithstanding any other provision of this Lease or of the Acetic Acid Purchase Contract or of the Plant Services Contract, including without limitation the provisions contained in other paragraphs of this Section 11, if a party has an Excursion, so long as the party uses its best reasonable efforts to promptly correct the Excursion, the party shall have no liability to the other party for the first ninety (90) minutes of loss suffered by the other party because of shutdown or restriction of the other party's operations caused by such Excursion, which loss shall include, without limitation, loss of production, maintenance and construction, loss of product, and clean up of product in the production facilities following shutdown or restriction of operations, it being understood that only the first ninety (90) minutes of loss from each Excursion is excused regardless of the length of the Excursion, and provided further if a party has an Excursion, the other party shall use its best reasonable efforts to minimize the loss to its operations caused by such Excursion.

(h) Within thirty (30) days after the Closing Date, TENANT will provide DUPONT with a list (the "List") of all Hazardous Material that will be used by TENANT at and/or be introduced by TENANT into the LEASED PROPERTY or in any machinery, equipment, facilities, pipelines or structures used in connection with the LEASED PROPERTY. After the Closing Date, TENANT will advise DUPONT once every calendar quarter of any Hazardous Material not on the List that were used by TENANT at and/or were introduced by TENANT into the LEASED PROPERTY or in any machinery, equipment, facilities, pipelines or structures used in connection with the LEASED PROPERTY.

(i) After the Closing Date, TENANT will make available to DUPONT, for inspection and/or copying, all environmental reports and notices that TENANT is required to provide to any

Governmental Authority regarding the LEASED PROPERTY or any operations in connection with the LEASED PROPERTY. After the Closing Date, DUPONT will make available to TENANT, for inspection and/or copying, all environmental reports and notices that DUPONT is required to provide to any Governmental Authority regarding the LaPorte Plant, or any operations in connection with the LaPorte Plant.

SECTION 12. REQUIREMENTS OF PUBLIC AUTHORITY.

(a) During the term of this Lease, TENANT shall, at its own cost and expense promptly observe and comply in all material respects with all present and future laws, ordinances, requirements, orders, directives, rules and regulations of the Federal, State, County, Town, Village and City Governments and of all other governmental authorities affecting the LEASED PROPERTY thereto or any part thereof whether the same are in force at the commencement of the term of this Lease or may in the future be passed, enacted or directed, and TENANT shall pay all costs, expenses, liabilities, losses, damages, fines, penalties, claims and demands, including reasonable counsel fees, that may in any manner arise out of or be imposed because of the failure of such party to comply with the covenants of this Section.

(b) TENANT shall have the right to contest by appropriate legal proceedings diligently conducted in good faith, in the name of TENANT, without cost or expense to DUPONT, the validity or application of any law, ordinance, rule, regulation or requirement of the nature referred to in subparagraph (a) of this Section and, if by the terms of any such law, ordinance, order, rule, regulation or requirement, compliance therewith may legally be delayed pending the prosecution of any such proceeding, TENANT may delay such compliance therewith until the final determination of such proceeding.

(c) DUPONT agrees to execute and deliver any

appropriate papers or other instruments which may be necessary or proper to permit TENANT so to contest the validity or application of any such law, ordinance, order, rule, regulation or requirement and to reasonably cooperate with TENANT in such contest.

SECTION 13. RESTRICTIONS ON LEASE ASSIGNMENT AND SUBLETTING.

(a) TENANT shall not assign or sublet this Lease or the LEASED PROPERTY or any part thereof or any interest therein, or otherwise permit the use or occupancy of the LEASED PROPERTY or of any Improvements or Project Improvements located thereon for any reason, including without limitation the operation of the Facility (as defined in the Agreement) except in connection with a Transfer (as defined in Section 13(b) below) of all or any part of the Facility in accordance with the provisions of subsections 13(b) through 13(i) of this Section.

(b) TENANT shall not be permitted to sell, transfer, lease, convey or otherwise change the ownership or possession of the Facility, or any portion thereof (hereinafter a "Transfer"), to a "Proposed Acquirer" (as such term is defined in subparagraph (f) of this Section) that is "financially weak" (as such term is defined in subparagraph (g) of this Section) or "lacks the technical expertise required for the safe operation of the Facility" (as such term is defined in subparagraph (h) of this Section). For the purpose of this subparagraph (b) of Section 13, "Ownership" shall mean holding any voting shares of any Entity (as defined below) or of any person or entity or having the right to receive any profits of any Entity or any person or entity and "Control" shall mean having the right to vote for or to appoint one or more of the directors, or individuals exercising similar functions of any Entity or any person or entity or the right to participate in directing the affairs of any Entity or any person or entity. For the

purpose of this Lease, any change in the Ownership or Control of any person or entity that has title to or the right of possession of the Facility or any portion thereof (an "Entity") as well as any change in the Ownership or Control of any person or entity that has, directly or indirectly, any Ownership or Control of any Entity (a "Parent of Entity"), whether or not any such change in Ownership or Control is accomplished through agreement, sale of one or more shares, sale of business, merger or otherwise, shall be deemed, without limitation, a Transfer (i) if, whether as a result of such change in Ownership or Control or not, NIPPON GOHSEI ceases to hold or does not hold, directly or indirectly, eighty percent (80%) or more of all outstanding voting shares of any Parent of Entity and of any Entity and/or does not have the right to receive eighty percent (80%) or more of the profits of any Parent of Entity and of any Entity or (ii) if any minority owner of any Parent of Entity or of any Entity shall play an active role in the management of any Entity or in the operation of the Facility. In the event of NOLTEX L.L.C. being TENANT under this Lease, "NIPPON GOHSEI" in the preceding sentence shall be replaced by "NIPPON GOHSEI and/or Mitsubishi Kasei Corporation jointly or separately." In such an event it is understood and agreed that (i) neither merger nor any change in the Ownership or Control of NIPPON GOHSEI or of Mitsubishi Kasei Corporation shall be deemed a Transfer hereunder and (ii) no agreement, sale of shares or business, merger or otherwise involving any direct or indirect subsidiary or subsidiaries of NIPPON GOHSEI or of Mitsubishi Kasei Corporation shall be deemed a Transfer hereunder provided that at all times NIPPON GOHSEI and/or Mitsubishi Kasei Corporation jointly or separately hold directly or indirectly a total of eighty percent (80%) or more of all outstanding voting shares of any such subsidiary which is a Parent of Entity and of any Entity and have the right to receive eighty percent (80%) or more of the profits of any such subsidiary which is a Parent of Entity and of any

Entity and provided further that no minority owner of any such subsidiary which is a Parent of Entity or of any Entity shall play an active role in the management of any Entity or in the operation of the Facility.

(c) In the event that TENANT shall enter into an agreement or an arrangement with respect to a Transfer (other than a lease arrangement) with a Proposed Acquirer which shall not be deemed to be financially weak or lack the technical expertise required for safe operation of the Facility but shall be deemed a "competitor of DUPONT" (as such term is defined in subparagraph (i) of this Section 13), then DUPONT shall have the right of first refusal (the "First Refusal Right") with respect to the Transfer to purchase the Facility or a portion thereof, as the case may be, upon the same terms and conditions agreed to by TENANT and the Proposed Acquirer. Upon entering into an agreement with a Proposed Acquirer with respect to a Transfer in accordance with this subparagraph (c), TENANT shall notify DUPONT, in writing, of its intention to consummate a Transfer to the Proposed Acquirer. Such notice shall include the terms upon which such Transfer shall be consummated, including the purchase price therefor. DUPONT shall have sixty (60) days after receipt of such notification to exercise its rights hereunder upon the terms and subject to the same conditions as the terms and conditions of the Transfer between the TENANT and the Proposed Acquirer. In the event that DUPONT shall elect not to exercise its right hereunder or fail to notify TENANT that DUPONT is exercising its right within the said sixty (60) day period, TENANT shall be permitted to consummate the Transfer to the Proposed Acquirer in accordance with the agreed upon terms and conditions. TENANT shall not lease or sublease the LEASED PREMISES, LEASED PROPERTY or the Facility, or a portion thereof, to a third party which is then a "competitor of DUPONT" (as such term is defined in subparagraph (i) of this Section), nor may there be a Transfer to a Proposed Acquirer which is a "competitor

of DUPONT" unless such Transfer shall be pursuant to a bona fide agreement of sale for the Facility or a portion thereof between TENANT and an unrelated Proposed Acquirer negotiated at arms-length for cash. For the purpose of the preceding sentence, a Proposed Acquirer shall be deemed "unrelated" to TENANT if neither TENANT nor the Proposed Acquirer holds, directly or indirectly, more than twenty percent (20%) of ownership interest in the other and if no third party entity holds, directly or indirectly, more than twenty percent (20%) of ownership interest in both TENANT and the Proposed Acquirer. However, if either TENANT or the Proposed Acquirer holds, directly or indirectly, over ten percent (10%) but not more than twenty percent (20%) of ownership interest in the other, or if a third party entity holds, directly or indirectly, over ten percent (10%) but not more than twenty percent (20%) of ownership interest in both of TENANT or the Proposed Acquirer, then DUPONT shall have an option (the "Option"), in lieu of the First Refusal Right, of having, at its expense, an independent national certified public accounting firm ("CPA") conduct an appraisal of the fair market value of the Facility or a portion thereof which is the subject of the proposed Transfer. DUPONT shall have fifteen (15) days, after receipt of TENANT's written notification given to DUPONT under this subparagraph (c) of TENANT's intention to consummate a Transfer to such a Proposed Acquirer (the "Over 10% Proposed Acquirer"), to exercise its Option and in the first notice to DUPONT under this subparagraph (c) TENANT shall advise DUPONT whether or not the Proposed Acquirer is an Over 10% Proposed Acquirer. In the event that DUPONT elects to exercise the Option, DUPONT shall notify TENANT, in writing, of its intention to do so, nominating, from the so called "Big Six" firms, a CPA which shall not be an auditor employed by DUPONT, NIPPON GOHSEI or Mitsubishi Kasei Corporation. TENANT shall have ten (10) days, after receipt of DUPONT's such notification, to respond in writing to DUPONT whether TENANT consents to

DUPONT's nomination of the CPA, which consent shall not be unreasonably withheld. In the event that TENANT elects not to consent to it with reason, the first nominated CPA shall, within ten (10) days after DUPONT's receipt of TENANT's such response, designate, in writing to both DUPONT and TENANT, another CPA from among the "Big Six" firms, which designation shall be conclusive and binding upon the parties hereto. DUPONT shall cause the designated CPA to conduct and complete the said appraisal within forty-five (45) days after DUPONT's receipt of TENANT's said written consent or the first nominated CPA's said designation, as the case may be. DUPONT shall have the right, exercisable by giving a written notice to TENANT within thirty (30) days after the designated CPA's completion of the appraisal, to purchase the Facility or a portion thereof which is the subject of the proposed Transfer, at the price offered by the Over 10% proposed Acquirer or at the appraised value thereof, whichever is lower. In the event that DUPONT shall elect not to exercise its said right within the said thirty (30) day period, TENANT shall be permitted to consummate the Transfer to the Over 10% Proposed Acquirer in accordance with the agreed upon terms and conditions.)

(d) NIPPON GOHSEI shall have the right to effectuate, or cause TENANT or a transferee from TENANT to effectuate, a Transfer to any majority-owned subsidiary of NIPPON GOHSEI, as long as no minority owner of such majority-owned subsidiary is then a "competitor of DUPONT" and provided, that NIPPON GOHSEI shall have first entered into an agreement with DUPONT in substantially the form attached hereto as Exhibit H, guaranteeing the performance by such majority-owned subsidiary; provided, however, that for the purpose of this subparagraph (d) of this Section 13, a minority owner of such majority-owned subsidiary shall not be deemed a "competitor of DUPONT" if (i) such minority owner's ownership interest is not more than twenty percent (20%) in the ownership of such subsidiary and (ii) such minority owner

does not play an active role in either the management of such majority-owned subsidiary or in the operation of the Facility.

(e) In the event that all or a portion of the Facility shall be sold or transferred in accordance with the provisions of this Section, the Proposed Acquirer shall first enter into an agreement with DUPONT, in a form reasonably acceptable to DUPONT, agreeing to be bound by the terms and provisions of this Section. TENANT shall be permitted to assign to the Proposed Acquirer, in connection with a Transfer authorized by this Section, the Plant Services Contract and the Acetic Acid Purchase Contract (the "Related Agreements"), provided that the Proposed Acquirer agrees with DUPONT in a form reasonably acceptable to DUPONT that the Proposed Acquirer will perform the Related Agreements; provided, however, that TENANT or such Proposed Acquirer shall not be restricted from manufacturing or otherwise producing at the Facility any product in no direct competition with fully hydrolyzed PVA.

(f) For purposes of this Section, a Proposed Acquirer shall be defined as any party to an agreement or arrangement with TENANT (or the then owner of the Facility or any portion thereof) providing for a Transfer, as well as any acquisition entity formed by such party for the sole purpose of purchasing, leasing, acquiring, or receiving the Facility or any portion thereof.

(g) For the purposes of this Section, a Proposed Acquirer shall be considered "financially weak" only if it falls under any of the following:

(i) the Proposed Acquirer is insolvent or had any accumulated loss as of the end of its latest fiscal year; or

(ii) the Proposed Acquirer shall not have earned a positive net income for the latest fiscal year; or

(iii) the net assets (on a consolidated basis) of the Proposed Acquirer as of the end of its latest fiscal year were less than the aggregate of its stated capital and

additional paid-in capital; or

(iv) Shareholders' equity (on a consolidated basis) of the Proposed Acquirer and its subsidiaries (excluding any minority interest in consolidated subsidiaries)

("Shareholders' Equity"), as of the end of its latest fiscal year was less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amount to be escalated by the increase in the Producer Price Index since December 31, 1993), or

(v) The total liabilities of the Proposed Acquirer plus the proposed purchase price of the Facility divided by total liabilities plus Shareholders' Equity plus the proposed purchase price of the Facility exceeds .8, or

(vi) Net sales of the Proposed Acquirer and its consolidated subsidiaries for its latest fiscal year were less than U.S. Three Hundred Million Dollars (\$300,000,000) or net chemical related sales were less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amounts to be escalated by the increase in the Producer Price Index since December 31, 1993).

Notwithstanding anything in this subparagraph (g) to the contrary, (A) if the Proposed Acquirer possesses a bond rating of at least B by Standard & Poor's or by Moody's, or if the Proposed Acquirer's parent possesses a bond rating of at least B by Standard & Poor's or by Moody's and the parent provides DUPONT with a guarantee, in substantially the form attached hereto as Exhibit H, guaranteeing to DUPONT the performance of the Proposed Acquirer and agreeing to be bound by the provisions of this Section, or (B) in the event that NIPPON GOHSEI provides DUPONT with a guaranty in substantially the form attached hereto as Exhibit H, guaranteeing to DUPONT the performance of the Proposed Acquirer, the Proposed Acquirer shall in no event be deemed "financially weak" pursuant to this subparagraph (g).

(h) For the purpose of this Section, the Proposed Acquirer shall be considered to "lack the technical expertise required for the safe operation of the Facility" only if it

falls under any of the following:

(i) The Proposed Acquirer has not been active in the operation of synthetic chemical operations of a complexity at least comparable to that of an EVOH facility for more than five (5) years immediately prior to the proposed acquisition, or

(ii) The Proposed Acquirer and its consolidated subsidiaries for its latest fiscal year had net sales less than U.S. Three Hundred Million Dollars (\$300,000,000) or net chemical-related sales less than U.S. Two Hundred Million Dollars (\$200,000,000) (said amounts to be escalated by the increase in the Producer Price Index since December 31, 1993).

(i) For purposes of this Section, a Proposed Acquirer shall be deemed "a competitor of DUPONT" if such person or entity shall produce at any location any of the products manufactured by DUPONT, as of February 24, 1994, on the LaPorte Plant as are more specifically set forth on Schedule 8.12(h) of the Agreement (each such product being hereinafter referred to as a "Competitive Product").

SECTION 14. INSURANCE.

(a) TENANT shall provide at its expense and keep in force during the term of this Lease, commercial general liability insurance (including premises operation, bodily injury, personal injury, death, independent contractors, broad form property damage coverages) in a combined single limit amount of not less than Three Million and 00/100 (\$3,000,000) Dollars (the "Required Insurance Amount"), in a good and solvent insurance company or companies licensed to do business in the State of Texas, covering all of its liabilities hereunder. The Required Insurance Amount shall be adjusted every five (5) years by the proportionate increase or decrease in the Producer Price Index as calculated by the formula set forth on Exhibit D.

(b) All insurance policies carried or caused to be carried by TENANT shall be issued in the name of TENANT and shall show DUPONT, as an additional insured, but only as respect to DUPONT as lessor of the LEASED PREMISES.

(c) TENANT, in its discretion, may carry such insurance under a blanket fire and other hazards and causes insurance policy or policies issued to TENANT covering the LEASED PROPERTY and other premises or property. However, a certificate or true copy thereof evidencing said insurance shall be delivered to DUPONT on DUPONT'S written request.

(d) All insurance policies carried by TENANT covering the LEASED PROPERTY, including, but not limited to, contents, fire and casualty insurance, shall expressly waive any right on the part of the insurer against DUPONT and its insurers for claims covered by such policies except that with regard to casualty insurance such waiver as to DUPONT's insurers shall not apply to claims resulting from the sole negligence of DUPONT. TENANT agrees that its policy will include such waiver clause or endorsement, and hereby waives any claims against DUPONT for perils to be insured against by such insurance policies to the extent of the injury or loss covered by such policies.

(e) Notwithstanding the foregoing provisions of Section 14, TENANT shall be entitled, at its option, to self insure or to not insure against the first (\$1,000,000.00) of casualties required to be covered by insurance as set out in Section 14 of this Lease without providing evidence thereof to DUPONT, and in such event, TENANT shall be deemed to have taken out such insurance coverage and this Lease shall be construed accordingly.

SECTION 15. CONDEMNATION.

In the event that the whole or any part of LEASED PREMISES be taken by virtue of eminent domain or for any public or quasi-public use, the parties shall be entitled to

share in the compensation and award, including accumulated interest, if any, in accordance with the following provisions:

(a) If the whole of LEASED PREMISES shall be taken, then this Lease shall cease and terminate and DUPONT shall receive a share of the condemnation award equal to the proportion that the fair market value of the land taken, considered as unimproved by the TENANT owned improvements thereon, as of the date of taking, bears to the fair market value of the land improved with the improvements, and if such value shall be officially determined and stated in the condemnation proceedings, then the amount thereof shall control for the purposes of this provision, and if not, the award shall be proportionately shared by DUPONT and TENANT according to their respective ownership interests as described above.

(b) If only a part of LEASED PREMISES shall be taken, then the parties shall share in the condemnation award in proportion to the extent that their respective interests are depreciated, damaged or destroyed as a result of the taking and if such values and such resulting or consequential damages shall be officially determined and stated in the condemnation proceedings, then the amount thereof shall control for the purposes of this provision.

(i) If in TENANT'S good faith reasonable opinion, the condemnation or appropriation materially interferes with TENANT'S use of the LEASED PREMISES, as described in Section 9 herein, then TENANT shall have the right, to be exercised by written notice within ninety (90) days to DUPONT after the date of such condemnation or appropriation, to terminate this Lease as to such remaining part of the LEASED PREMISES not so taken, on a date to be specified in said notice, which date shall not be earlier than the date of such taking, in which case TENANT shall pay and satisfy all rent due and accrued up to such date of such termination, including all sums of additional rent and all other charges to such date, and shall

perform all the obligations of TENANT hereunder and thereupon this Lease shall terminate.

(ii) If the condemnation does not materially affect the use and enjoyment of the LEASED PREMISES as set forth in Section 9 of this Lease, as decided in TENANT'S good faith reasonable opinion, or the TENANT elects not to terminate as herein provided, then this Lease shall continue in full force and effect, and the rent for the LEASED PREMISES shall be adjusted in proportion to the reduction in acreage, rounded up to the nearest tenth of an acre.

(iii) In case of a second or any other additional partial taking or takings from time to time, the provisions herein above contained shall apply to each partial taking.

SECTION 16. DEFAULT.

(a) Any of the following occurrences, conditions or acts shall constitute an "Event of Default" under this Lease. The provisions of Section 18 of this Lease shall not apply to any disputes, claims or issues arising under or relating to subsection 16(a)(i), 16(a)(ii), 16(b)(i), 16(b)(ii) or any other provision of this Section 16 insofar as it relates to any of the four preceding subsections.

(i) If TENANT defaults in making payment when due of any installment of Rent, additional rent, or other amount payable hereunder by TENANT to DUPONT, and such default continues for a period of fifteen (15) days after DUPONT shall have given notice to TENANT specifying such default;

(ii) If TENANT attempts to make an assignment or sublet of this Lease or sublets all or a portion of the LEASED PROPERTY, except as is provided in Section 13 herein, and such default continues for a period of fifteen (15) days after DUPONT shall have given notice to TENANT specifying such default; or

(iii) If TENANT defaults in the observance or performance of any provision of this Lease (other than those

provisions referenced herein above under subparagraph (a) (i) and (ii), and such default continues for a period of thirty (30) days after DUPONT shall have given notice to TENANT specifying such default; provided, however, if such default cannot be wholly cured within such thirty (30) day period, then TENANT shall not be deemed to be in default so long as TENANT has commenced the cure of such default within said thirty (30) day period and continues, with due diligence, to prosecute said cure, provided said cure period shall not exceed an additional sixty (60) day period.

(b) Upon the occurrence of an Event of Default, DUPONT shall have the following remedies:

(i) With respect to an Event of Default described in Section 16 (a) (i), if TENANT has not tendered payment of the amount in default, together with interest thereon at a rate per annum equal to one and one half percent (1 1/2%) per month or the highest rate allowed by law, whichever is the lower (the "Default Rate") as of the date of the Event of Default (which interest shall be calculated from the date the payment was due until the date of payment), on or before the fifteenth (15th) day after DUPONT gives notice of such default under Section 16(a) (i), then, DUPONT shall have the right to terminate this Lease by notice of termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the fifteenth (15) day following the giving of such notice of termination; provided, however, if TENANT tenders payment of the amount in default, together with the interest due thereon at the Default Rate, prior to said effective date of termination, said notice of termination shall be deemed null and void.

(ii) With respect to an Event of Default described in Section 16 (a) (ii), if TENANT has not cured the Event of Default on or before the fifteenth (15th) day after DUPONT gives notice of default under Section 16(a) (ii), then, DUPONT shall have the right to terminate this Lease by notice of

termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the fifteenth (15th) day following the giving of such notice of termination; provided, however, that if TENANT cures said default by rescinding the attempted transfer prior to said effective date of termination, said notice of termination shall be deemed null and void.

(iii) With respect to an Event of Default described in Section 16 (a)(iii), DUPONT shall have the right but not the obligation to take such reasonable action as is necessary to cure the default. All costs and expenses incurred by DUPONT shall be for the account of TENANT, and shall be paid by TENANT. TENANT shall reimburse DUPONT within thirty (30) days after receipt of a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT. If not paid within such thirty (30) day period, TENANT shall pay such amount with interest thereon at the Default Rate from the date such payment is due until said amount is received by DUPONT. Notwithstanding any other provision of this Lease and subject to the terms of this Section, with respect to an Event of Default described in Section 16(a)(iii), if TENANT has failed to cure such default on or before the thirtieth (30th) day after DUPONT gives notice of such default under Section 16(a)(iii), or on or before any applicable additional period provided for in Section 16(a)(iii), whichever period is longer, then DUPONT shall have the right to terminate this Lease by notice of termination to TENANT. If DUPONT exercises said termination right, said notice of termination shall be deemed effective as of the thirtieth (30th) day following the giving of such notice of termination; provided, however, if TENANT cures such default prior to said effective date of termination, said notice of termination shall be null and void.

(c) DUPONT, upon providing TENANT with any notice of an Event of Default (herein called a "Default Notice", and all defaults specified under subparagraphs 16(a)(i), (a)(ii) and

(a)(iii) shall be called a "Default"), shall at the same time provide a copy of such notice to every Registered Mortgagee. From and after the date of the Default Notice, each Registered Mortgagee shall have the same period for remedying such Default as is given to TENANT, to remedy, commence remedying, or cause to be remedied the Default specified in any such Default Notice. Provided, however, no Registered Mortgagee shall have any right to cure any Defaults under Section 16(a)(ii) and Section 16(b)(ii). DUPONT shall accept such performance by or at the instigation of any such Registered Mortgagee as if the same had been done by TENANT. TENANT authorizes each Registered Mortgagee to take any such action at each Registered Mortgagee's option and does hereby authorize entry upon the LEASED PROPERTY by the Registered Mortgagee(s) for such purposes. Provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto.

(d) Anything contained in this Lease to the contrary notwithstanding, if any Default shall occur which entitles DUPONT to terminate this Lease pursuant to Section 16(b)(i) and 16(b)(iii), DUPONT shall notify each Registered Mortgagee of DUPONT'S intention to so terminate ("Notice of Termination") at least fifteen (15) days in advance of the proposed effective date of such termination and such termination shall not be effective if, during such fifteen (15) day period, any such Registered Mortgagee shall:

(i) notify DUPONT of such Registered Mortgagee's election to nullify such notice; and

(ii) pay or cause to be paid all rent and other payments then due and in arrears as specified in the Default Notice delivered to such Registered Mortgagee, and in addition, agree to pay or cause to be paid all rent and other payments which may become due during such fifteen (15) day period, and promptly reimburse DUPONT for all costs and expenses incurred by DUPONT pursuant to Section 16(b)(iii)

upon receipt by the Project Mortgagee of a reasonably detailed statement from DUPONT as set forth in Section 16(b)(iii); and

(iii) comply or in good faith, with reasonable diligence and continuity, commence to comply with all non monetary requirements of this Lease then in Default and reasonably susceptible of being complied with by such Registered Mortgagee, except that such Registered Mortgagee shall not be required during such fifteen (15) day period to cure or commence to cure any Default consisting of TENANT'S failure to satisfy and discharge any lien, charge or encumbrance against the TENANT'S interest in this Lease or the LEASED PROPERTY junior in priority to the lien of the mortgage held by such Registered Mortgagee but DUPONT shall be entitled to cure or commence to cure such Default as provided in the next sentence, and provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto. Also, DUPONT shall have the right, but not the obligation, in lieu of any action by Registered Mortgagee, to cure any Default in any requirements of this Lease at Registered Mortgagee's expense and to take any such action as is necessary to cure any such Default whether or not Registered Mortgagee is permitted or required to cure any such Default. In the event DUPONT exercises its rights to cure the Default, whether or not Registered Mortgagee is permitted or required, DUPONT shall provide Registered Mortgagee with a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT, and Registered Mortgagee will promptly reimburse DUPONT for all such costs and expenses.

(e) If (I) the Default giving rise to the Default Notice shall not have been cured, (II) DUPONT shall elect to terminate this Lease by reason of any Default of TENANT and (III) a Registered Mortgagee shall have (aa) paid or caused to be paid all sums described in subparagraph (d)(ii) of this

Section 16 and (bb) complied or commenced to comply with all non-monetary requirements of this Lease then in Default and reasonably susceptible of being complied with by such Registered Mortgagee, provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto, then the specified date for the termination of this Lease as fixed by DUPONT in its notice shall be extended for a period of three (3) months, provided that such Registered Mortgagee shall, during such three (3) month period:

(i) pay or cause to be paid the rent and other monetary obligations of TENANT under this Lease as the same become due, and continue its good faith efforts to perform all of TENANT'S other obligations under this Lease, excepting obligations of TENANT to satisfy or otherwise discharge any lien, charge or encumbrance against TENANT'S interest in this Lease or the LEASED PROPERTY junior in priority to the lien of the mortgage held by such Registered Mortgagee, but DUPONT shall be entitled to cure or commence to cure such obligations as provided in the next sentence and provided however, that no Registered Mortgagee may operate the Facility or any machinery, equipment, or process included in the LEASED PROPERTY or Improvements thereto. Also, DUPONT shall have the right, but not the obligation, in lieu of any action by Registered Mortgagee, to cure any requirements of this Lease then in Default at Registered Mortgagee's expense and to take any such action as is necessary to cure any such Default, whether or not Registered Mortgagee is permitted or required to cure any such Default. In the event DUPONT exercises its rights to cure the default, whether or not Registered Mortgagee is permitted or required to cure any such default, DUPONT shall provide Registered Mortgagee with a reasonably detailed statement itemizing the costs and expenses incurred by DUPONT, and Registered Mortgagee will promptly reimburse DUPONT for all such costs and expenses.

(ii) if not enjoined or stayed, take steps to acquire or sell TENANT'S interest in this Lease and the LEASED PROPERTY by foreclosure of the mortgage or other appropriate means and prosecute the same to completion with due diligence, subject to the provisions of this Lease including, without limitation, Sections 13 and 31 hereof.

(iii) if during such three (3) month period such Registered Mortgagee's efforts to acquire or sell TENANT'S interest in this Lease and the LEASED PROPERTY by foreclosure of the mortgage or other appropriate means are enjoined or stayed, then the three (3) month period shall be extended until thirty (30) days after such injunction or stay has ended but in no event shall such three (3) month period be extended for more than a total of four (4) additional months even if such injunction or stay is still in effect, and provided that during any such extended period Registered Mortgagee shall comply with the provisions of subparagraph (e)(i) above, the other provisions of subparagraph (e)(i) above will apply and Registered Mortgagee shall use its best reasonable efforts to remove the injunction or stay.

(f) If at the end of such three (3) month period, or such longer period provided in subparagraph (e)(iii) above, the Default is not cured, then this Lease shall terminate.

(g) Nothing herein contained shall require any Registered Mortgagee or its designee to cure any non-monetary Default that is not reasonably susceptible of being cured by such Registered Mortgagee or its designee in order to exercise any of its rights pursuant to subparagraphs(c) or (d) of this Section 16, subject to DUPONT'S rights to cure defaults and to be reimbursed therefore as set forth herein.

SECTION 17. DAMAGE TO OR DESTRUCTION OF IMPROVEMENTS.

(a) In case of damage or destruction of the Improvements (or Project Improvements as hereinafter defined) in whole or in part by fire or other casualty (including any

casualty for which insurance was not obtained or obtainable) of any kind or nature, ordinary or extraordinary, foreseen or unforeseen, TENANT shall give immediate notice of such casualty to DUPONT. If the cost to repair, restore, replace or rebuild the Improvements (or Project Improvements) is in excess of Ten Million Dollars (\$10,000,000.00), TENANT, at its sole and absolute discretion, and subject to the consent of the holder of any Project Mortgage, may notify DUPONT by notice given not later than the sixtieth (60th) day following such casualty that TENANT elects to terminate this Lease pursuant to the provisions of Section (c) below.

(b) If TENANT shall not elect, or shall fail to notify DUPONT that it elects, to terminate this Lease, or if TENANT shall fail to obtain the consent of the Project Mortgagee's, if any, to terminate this Lease, or if the cost to repair, restore, replace or rebuild the Improvements (or Project Improvements) is less than Ten Million Dollars (\$10,000,000.00), then TENANT shall cause the damage to be repaired, with reasonable speed at the expense of TENANT, subject to any delays which may arise by reason of adjustment of loss under insurance policies or unavoidable circumstances.

(c) In the event TENANT elects to terminate this Lease pursuant to Section 17(a), TENANT shall, with reasonable speed, cause the Improvements (or the Project Improvements) affected by such casualty to be demolished to ground level or otherwise secured to the reasonable satisfaction of DUPONT and also comply with all other provisions of this Lease including Section 21.

(d) DUPONT and TENANT further agree and acknowledge that all rights of DUPONT in and to the insurance proceeds of any all-risk or other property insurance applicable to the Improvements (or Project Improvements) or any portion thereof, if any, on account of such fire or other casualty, shall be and remain subordinate, inferior and subject to the interests in such proceeds held by any Project Mortgagee or

TENANT. Under no circumstances whatsoever shall DUPONT maintain that it has any right or claim of any kind or nature in and to any proceeds of any all-risk or other property insurance policies applicable to the Improvements (or Project Improvements) or any portion thereof on account of such fire or other casualty of equal priority or superior to the interest in such proceeds held by any Project Mortgagee or TENANT.

SECTION 18. ALTERNATIVE DISPUTE RESOLUTION.

(a) Both parties understand and appreciate that their long term mutual interests will be best served by effecting a rapid and fair resolution of any claims or disputes which may arise out of services performed under this Lease or from any dispute concerning Lease terms. Therefore, both parties agree to use their best efforts to resolve all such disputes as rapidly as possible on a fair and equitable basis. Toward this end, within one (1) year of the execution of this Lease, both parties agree to develop and follow a process for presenting, rapidly assessing, and settling claims and other disputes on a fair and equitable basis. The mediation procedure as set forth herein must be followed prior to either party filing for litigation (hereinafter the "Process").

(b) If any dispute or claim arising under this Lease cannot be readily resolved by the parties pursuant to the Process referenced in subsection (a), the parties agree to refer the matter to a panel consisting of one (1) senior executive from each party for review and resolution. The senior executive shall not have been directly involved in the claim or dispute. A copy of the Lease terms, relevant facts, areas of disagreement, and concise summary of the basis for each side's contentions will be provided to both executives who shall review the same, confer, and attempt to reach a mutual resolution of the issue. The senior executives shall

attempt to meet and resolve the dispute within thirty (30) days of their appointment.

(c) If the dispute cannot be resolved, under the process set forth in subsection (b), within ten (10) days from the date of the panel's conference, the parties agree to attempt to resolve the dispute or claim through non-binding mediation. The parties shall select a single qualified mediator (the "Mediator"), knowledgeable in real estate, who is not presently affiliated with or related to either party. The Mediator shall hold a hearing (not to exceed one day) as soon as practicable after his appointment (but not later than thirty (30) days after his appointment) during which each party shall present its version of the matter, supported, if desired, by a brief statement of the issue(s), sworn, written testimony, relevant documents, its assessment of damages, and its argument. The parties shall provide the Mediator with copies of all such materials as well as any documents provided to their senior executives under subparagraph (b) at least ten (10) days prior to the scheduled date of the mediation hearing. The parties may also provide the Mediator with copies of any laws or regulations which they feel are relevant to the dispute. A copy of this Lease will be provided to the Mediator. Formal written arguments, legal memorandum, and live testimony are discouraged but may be permitted at the discretion of the Mediator. Both parties agree to make any relevant and involved employees or documents available to the other party for its review and use in preparing its position under this Section without the need for subpoena or other court order.

(d) The Mediator, within ten (10) days of the completion of the hearing, will meet separately with both parties and provide each of them, on a confidential basis, with his/her written views of the strengths and weaknesses of their respective positions. The parties will then reconvene and, with the assistance of the Mediator, attempt to resolve the matter. If resolution cannot be achieved by the parties

within forty-eight (48) hours of this second meeting, the Mediator will, within ten (10) additional days, issue a written, non-binding decision on the issue.

(e) Each party shall, within five (5) days of the Mediator's written decision, notify the other in writing whether it will accept or reject that decision. If the matter has not been resolved utilizing the processes set forth in this clause and the parties are unwilling to accept the non-binding decision of the Mediator, either or both parties may elect to pursue resolution through litigation.

(f) The selected Mediator shall execute a confidentiality agreement, satisfactory to all parties, prior to his/her active participation in the mediation. The costs of the Mediator shall be shared equally by the parties. Each party will bear its own costs of mediation.

(g) If the parties cannot agree upon a choice of a Mediator within ten (10) days of the date of the panel's conference pursuant to subparagraph (b), the matter shall be submitted directly to District Court of Harris County, Texas for selection of a Mediator.

(h) All statements, correspondence, memorandum, briefs, decisions, testimony, communications, and materials, whether written or oral, submitted to or generated by the panel and/or Mediator in connection with the processes set forth above shall be deemed to be in furtherance of settlement negotiations and shall be privileged and shielded from production and disclosure in any subsequent litigation.

SECTION 19. WAIVERS.

Failure of DUPONT or TENANT to complain of any act or omission on the part of the other party no matter how long the same may continue, shall not be deemed to be a waiver by said party of any of its rights hereunder. No waiver by DUPONT or TENANT at any time, express or implied, of any breach of any provision of this Lease shall be deemed a

waiver of a breach of any other provision of this Lease or a consent to any subsequent breach of the same or any other provision.

SECTION 20. NOTICES.

(a) All notices, requests, demands, waivers, consents, approvals or other communications required or permitted hereunder shall be in writing and be given to the other party by hand delivery, by transmission by facsimile followed by confirmation by mail, or by first class mail (or airmail, if applicable) postage prepaid and shall be deemed to have been duly given (i) immediately upon hand delivery by courier or otherwise, (ii) if transmitted by facsimile when the facsimile is sent to the appropriate number and the recipient acknowledges receipt by telephone or in writing, or (iii) five (5) days after being mailed by first class mail (or airmail, if applicable) postage prepaid, in each case addressed, delivered and/or communicated as follows:

To DUPONT

E. I. DU PONT DE NEMOURS AND COMPANY
Corporate Real Estate
1007 Market Street
Wilmington, Delaware 19898
Telephone Number: 302-992-5286
Facsimile Number: 302-992-5296

With a copy to:

DuPont LaPorte Plant
P.O. Box 347
LaPorte, Texas 77572-0347
Attn: LaPorte Plant Manager
Telephone Number: 713-470-3211
Facsimile Number: 713-470-3965

To TENANT:

NOLTEX L.L.C.
c/o Masuda & Ejiri
399 Park Avenue, 22nd Floor
New York, New York 10022
Attn: Junji Masuda, Esq.
Telephone Number: 212-486-2525
Facsimile Number: 212-486-2614

With a copy to:

NOLTEX L.L.C
12220 Strang Road
LaPorte, Texas 77572-1489
Telephone Number: 713-471-0050
Facsimile Number: 713-471-0597

(b) Any party may by notice to the other parties to this Agreement change the address to which notice or other communications to it are to be delivered or mailed. Whenever the giving of notice is required pursuant to this Lease, the giving of such notice may be waived in writing by the party entitled to receive such notice.

SECTION 21. SURRENDER.

At the expiration or earlier termination of this Lease, TENANT agrees to deliver the LEASED PROPERTY to DUPONT in good order and condition and make good all damage to the LEASED PROPERTY, ordinary wear and tear excepted. Any improvements owned by TENANT on the LEASED PREMISES or constituting the LEASED PROPERTY shall be removed by TENANT prior to the expiration or early termination of this Lease. If TENANT fails to so remove, DUPONT shall have the right to remove the same at TENANT'S expense. In the event DUPONT purchases the Facility as defined and pursuant to the terms of Section 13 of the Lease, TENANT shall not be required to

remove said Facility.

SECTION 22. GOVERNING LAW.

Except as otherwise provided herein, this Lease and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State of Texas; however, the Courts of the State of New York shall have sole and exclusive jurisdiction over all matters of controversy arising under this Lease.

SECTION 23. PARTIAL INVALIDITY.

If any term, covenant, condition or provision of this Lease or the application thereof to any person or circumstance shall, at any time or to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term, covenant, condition and provision of this Lease shall be valid and be enforced to the fullest extent permitted by law.

SECTION 24. MEMORANDUM OF LEASE.

The parties will at Closing execute duplicate originals of an instrument, in recordable form, which will constitute a short form of lease as set forth as Exhibit I.

SECTION 25. SUCCESSION.

All of the covenants, agreements, conditions and undertakings of this Lease ("Covenants") shall extend and inure to and be binding upon the successors and permitted assigns of the respective parties hereto. All Covenants herein made binding upon the parties hereto shall be construed to be equally applicable to and binding upon their

agents, employees and others claiming the right to be on the LEASED PROPERTY or the LaPorte Plant through or under authority of either of the parties hereto.

SECTION 26. QUIET ENJOYMENT.

DUPONT covenants and warrants that, as long as no default on the part of TENANT shall have occurred and be continuing under this Lease, DUPONT or persons claiming by, through or under DUPONT will take no action which interferes with the peaceful and quiet enjoyment and possession of the LEASED PROPERTY by TENANT, its successors and permitted assigns during the term of this Lease, as extended.

SECTION 27. BROKERS.

DUPONT and TENANT covenant, warrant and represent that there was no broker or agent instrumental in consummating this Lease and that no conversations or prior negotiations were had with any broker or agent concerning the leasing of the LEASED PROPERTY. Each party agrees to hold the other harmless against any claims for brokerage commissions arising out of any conversations or negotiations had by such party with any broker or agent.

SECTION 28. REPRESENTATIONS AND WARRANTIES OF THE PARTIES.

(a) As material inducements to TENANT to enter into this Lease, as of the date hereof, DUPONT represents and warrants to TENANT as follows:

1. DUPONT has the requisite corporate power and authority to enter into this Lease, to carry out its obligations hereunder, and to grant to TENANT a leasehold interest in the LEASED PROPERTY in accordance with the terms and conditions hereof;

2. This Lease has been duly executed by duly authorized officers of DUPONT;

3. DUPONT is a corporation duly organized, validly existing, and in good standing under the laws of the State of Delaware;

4. DUPONT has record title to the LEASED PROPERTY. Except as set forth in Exhibit K, there are no unrecorded liens, easements, or encumbrances against the LEASED PROPERTY that materially interferes with TENANT'S use of the LEASED PROPERTY. The LEASED PROPERTY, however is subject to all matters of record and any state of facts that is apparent from the SURVEY.

(b) As material inducements to DUPONT to enter into this Lease, as of the date hereof, TENANT represents and warrants to DUPONT as follows:

1. TENANT has the requisite power and authority to enter into this Lease, to carry out its obligations hereunder, and to lease from DUPONT the LEASED PROPERTY in accordance with the terms and conditions hereof;

2. This Lease has been duly executed by TENANT or by duly authorized officers or managers of TENANT;

3. TENANT is a limited liability company duly formed, validly existing, and in good standing under the laws of the State of Texas.

(c) As to this Section 28, neither party shall present or assert any claim against the other party on account of misrepresentation or breach of warranty more than ten (10) years after the date of this Lease, and neither party shall bring any action against the other party on account of misrepresentation or breach of warranty more than ten years (10) after the date of this Lease.

SECTION 29. EASEMENTS.

(a) Subject to paragraph (c) of this Section, if at any time during the term of this Lease, either party determines that it is necessary to grant to any public authority, utility company, or other third party any easements of any

kind under, over or across the LEASED PREMISES or any portion thereof and such easement does not materially interfere with the other party's operations, then such easement will be granted. At TENANT'S request, DUPONT agrees that it will subordinate its fee simple interest in the LEASED PREMISES to any such easement.

(b) Subject to paragraph (c) of this Section, if at any time during the term of this Lease, TENANT determines that it is necessary to obtain an easement for any third party under, over, or across the LaPorte Plant outside the LEASED PREMISES, and such easement does not materially interfere with DUPONT operations, DUPONT will grant such easement provided that TENANT first pays DUPONT a reasonable fee for such easement.

(c) DUPONT further agrees that it will execute any easements or other instruments or documents in a form and substance reasonably acceptable to DUPONT which may be required by TENANT, any public authority, utility company, or other party in connection with any of the foregoing; provided, however, that DUPONT shall have no obligation to execute any such instrument or document which would create or cause DUPONT to assume any liability unless TENANT shall indemnify DUPONT against any and all liability arising in connection with the grant in a form acceptable to DUPONT. Any and all easements granted herein shall be coterminous with the effective term of this Lease and shall terminate upon the termination of this Lease. If TENANT shall discontinue use of any said easement for a continuous one hundred eighty (180) day period without justification, or if TENANT shall discontinue use of any said easement whether with or without justification for a period of two (2) years, then such grant of the easement shall revert back to DUPONT and TENANT shall obtain a release of easement from the third party who holds such grant pursuant to this Section.

SECTION 30. ENTIRE AGREEMENT.

This Lease, together with the Plant Services Contract, with regard to the matters described herein, constitutes the full, complete and entire agreement as to the matters discussed herein between and among the parties hereto. No amendment of the Lease shall be binding or effective unless such amendment shall be in writing, signed by both DUPONT and TENANT.

SECTION 31. MORTGAGING OF THE LEASED PROPERTY.

Definitions Throughout this Lease, the following terms and definitions shall apply:

"Project Improvements" shall mean and have reference to any and all buildings, structures, and improvements constructed on the LEASED PROPERTY by or on behalf of TENANT pursuant to this Lease, including any improvements constructed on the LEASED PROPERTY by or on behalf of TENANT subsequent to the construction in whole or in part of any of the structures originally placed on the LEASED PROPERTY by TENANT pursuant to the provisions of this Lease, together with all fixtures and appurtenances attached or affixed to said improvements or to the LEASED PROPERTY.

"Project Mortgage" shall mean and have reference to any encumbrance of TENANT'S leasehold interest and estate for years, in and to the LEASED PREMISES or any portion thereof or any interest therein, as security for any indebtedness or other obligation of TENANT, whether by deed to secure debt, mortgage, deed of trust, pledge, financing statement, security agreement, or other security instrument.

"Project Mortgagee" shall mean and have reference to any holder of the indebtedness or other obligation secured by any Project Mortgage.

"Registered Mortgagee" shall mean and have reference to any Project Mortgagee who has registered with DUPONT pursuant to Section 31(c) of this Lease.

(a) Right to Mortgage; TENANT'S Rights in the LEASED PROPERTY. TENANT shall have the right to encumber its right to use and occupy the LEASED PROPERTY, the leasehold estate created hereby, all right, title, and interest in and to the Improvements and Project Improvements, as well as in and to any and all other buildings at any time located on the LEASED PREMISES, and any other property so affixed to said land, buildings, or improvements as to be a part thereof and all rents, income, revenues, issues and profits now or hereafter incident or belonging to said leasehold estate and buildings and property, under any one or more Project Mortgages, as security for any indebtedness or obligation; provided that no Project Mortgagee or anyone that claims by, through, or under such Project Mortgage or instrument in the nature thereof, shall by virtue thereof acquire any greater right in the LEASED PREMISES and in any Improvements or Project Improvements thereon than TENANT then had under this Lease and provided further that no Project Mortgage may extend the term of this Lease or limit in any way DUPONT'S exercise of any of its rights under this Lease including the right to terminate this Lease. The execution and delivery of any such Project Mortgage, the transfer to the Project Mortgagee of the leasehold estate pursuant to any foreclosure (judicial or otherwise) thereof or any deed or assignment in lieu of foreclosure or the disposition of the leasehold estate by the holder of such Project Mortgage shall not be prohibited by the provisions of Section 13 hereof but shall be subject, however, to the provisions of Section 31(d) below. Any Project Mortgage shall in all respects be and remain subordinate and inferior to DUPONT'S rights, title, privileges and interests in and to the LEASED PROPERTY, and TENANT shall not have the right to encumber in any manner DUPONT'S fee simple title and reversionary interest in and to the LEASED PROPERTY.

(b) Agreement With Project Mortgagees. DUPONT hereby agrees to enter into an agreement with Project Mortgagees,

the terms of which shall be consistent with the provisions of this Section 31, in form and substance reasonably acceptable to DUPONT and to the Project Mortgagees, providing that this Lease and the rights and interests of DUPONT in and to the LEASED PROPERTY shall survive any foreclosure or deed in lieu of foreclosure under the Project Mortgages subject to the provisions of Section 31(d) below.

(c) Notices to Registered Mortgagees. In the event TENANT shall encumber its right to use and occupy the LEASED PROPERTY or any portion thereof or any interest therein with a Project Mortgage and the Project Mortgagee shall register with DUPONT by delivering to DUPONT a copy of the Project Mortgage certified by the Clerk of Harris County Texas, together with a written notice specifying the name and address of the Project Mortgagee, the pertinent recording data, and the term or duration of the Project Mortgage, then from and after the date of receipt by DUPONT of such registration and for the term or duration of said Project Mortgage, upon serving TENANT with any notice under this Lease, DUPONT shall simultaneously serve in the same manner as notice is given to TENANT a copy of such notice to all Registered Mortgagees, the serving of which notice upon each Registered Mortgagee entitled to the delivery thereof shall be a condition precedent to the effectiveness thereof. Upon request DUPONT shall notify any Registered Mortgagee of the identity and address of DUPONT'S agent, if any, for receipt of notice and payments hereunder and such Registered Mortgagee shall be entitled to rely on such notice until such Registered Mortgagee is delivered a notice from DUPONT changing the identity and/or address of such agent, and notices sent and payments made in accordance with such a notice by DUPONT shall constitute notice and payment to all parties included within the term "DUPONT". Each Registered Mortgagee shall have the right to remedy or cause to be remedied the default complained of or request made, and DUPONT shall accept performance by or at the instigation of

any Registered Mortgagee with the same force and effect as if TENANT had performed the action in question subject to the provisions of Section 31(d) below. Nothing contained herein shall be construed as imposing any obligation upon any Project Mortgagee so to perform or comply on behalf of TENANT.

(d) Rights and Restrictions of Project Mortgagees.

Notwithstanding the provisions of Section 13 of this Lease, a Project Mortgagee may foreclose a Project Mortgage (by judicial procedure or otherwise) subject to the provisions of this Section 31(d). The Project Mortgagee may take legal title to TENANT'S leasehold interest and TENANT'S rights to the LEASED PROPERTY but may not operate the Facility or any machinery or equipment or process located on the LEASED PREMISES, nor may any third party operate the Facility or any machinery or equipment or process located on the LEASED PREMISES while the Project Mortgagee has title to TENANT'S leasehold interest and TENANT'S rights to the LEASED PREMISES. While holding legal title to the leasehold interest in the LEASED PROPERTY, the Project Mortgagee shall ensure that the LEASED PROPERTY and the LEASED PREMISES and machinery and equipment are in a safe condition and not in violation of any applicable law, rule, regulation, ordinance or order. The Project Mortgagee may only sell or transfer the LEASED PREMISES and the machinery and equipment located on the LEASED PROPERTY and TENANT'S interest in the LEASED PROPERTY subject to and in accordance with the provisions and requirements set forth in Section 13 hereof. Upon the breach of any of the provisions of this Section 31(d) by any Project Mortgagee, or by any third party claiming through or in possession with the permission of any Project Mortgagee, DUPONT shall have the right to immediately terminate this Lease upon notice to the Project Mortgagee and to any Registered Mortgagee.

(e) Limitation on Liability of Project Mortgagees.

Except as provided in subsection 31(d) above, no Project

Mortgagee shall be or become liable to DUPONT as an assignee of this Lease or otherwise unless it expressly assumes by written instrument such liability, (in which event the Project Mortgagee's liability shall be limited to the period of time it is the owner of the leasehold estate created hereby) and no assumption shall be inferred from or result from foreclosure or other appropriate proceedings in the nature thereof or as the result of any other action or remedy provided for by such Project Mortgage or other instrument or from a conveyance from TENANT in accordance with the provisions of Section 13 hereof pursuant to which the purchaser at foreclosure or grantee shall acquire the rights and interests of TENANT under the terms of this Lease; provided that nothing in this Section shall be deemed to prevent DUPONT from exercising its remedies under this Lease. It is further agreed that no Project Mortgagee who acquires rights in the LEASED PROPERTY or this Lease solely by virtue of the provisions of a Project Mortgage shall have any liability hereunder except as expressly provided in this Section 31.

(f) Modification of Lease: Termination.

Notwithstanding the existence of one or more Project Mortgages, DUPONT and TENANT may modify and amend this Lease except that neither DUPONT nor TENANT may agree to any termination of this Lease other than as then provided herein so long as any Registered Mortgagee retains an interest in any Project Mortgage.

(g) Limitation on Number of Registered Mortgages. The rights granted a Registered Mortgagee in this Section 31 shall not extend to more than two (2) such Registered Mortgagees at any one time and shall be exercisable by each Registered Mortgagee in the order of the respective priorities of the Project Mortgages.

(h) Certificates. DUPONT and TENANT shall execute, acknowledge, and deliver to the other promptly upon written request a certificate certifying any of the following as

requested:

(i) Validity of Lease: That this Lease is unmodified and in full force and effect (or, if there have been modifications, that this Lease is in full force and effect, as modified, and stating the modifications); and

(ii) Defaults: That no notice has been given by DUPONT to TENANT or by TENANT to DUPONT of any Default under this Lease that has not been cured and to the best of its knowledge and belief no Default exists (or if such exists, or if notice has been given, describing the same).

Certificates from DUPONT and TENANT pertaining to the aforesaid matters may be relied upon by any existing or prospective Project Mortgagee. No certificate issued hereunder, however, shall be deemed to affect the rights and obligations of DUPONT and TENANT between themselves under this Lease.

SECTION 32. NO POSITIONS AT VARIANCE WITH THIS LEASE.

Subject to the conditions and provisions of Section 16 and 18, DUPONT and TENANT agree that as between themselves neither shall formally or officially adopt, espouse, adhere to, urge, or otherwise maintain any position or point of view, whether in litigation, administrative proceedings, or in any other form or context whatsoever, which is in conflict with any term, covenant, provision, agreement, stipulation, warranty, representation, or fact set forth in this Lease.

SECTION 33. WAIVER OF JURY TRIAL.

The parties hereto, hereby waive their rights to trial by jury in any litigation with respect to, in connection with, or arising out of this Lease or the validity, interpretation, collection or enforcement thereof.

SECTION 34. CERTAIN PIPELINE EASEMENTS.

DUPONT shall not permit relocation within the LEASED PREMISES of the Gulf Oil Corporation and Union Carbide Corporation pipeline easements without TENANT's consent which consent shall not be unreasonably withheld.

SECTION 35. WASTEWATER PIPELINE RIGHT OF WAY.

At Closing, as defined in the Agreement, TENANT shall pay DUPONT the sum of One Hundred Twenty Thousand Dollars (\$120,000.00) in full consideration to DUPONT of and as a total payment to DUPONT for the wastewater pipeline right of way during the effective term of this Lease set forth in Exhibit B, number 20.

SECTION 36. REMOVAL OF RESTRICTIONS.

If during the term of this Lease DUPONT sells the entire LaPorte Plant to a party other than TENANT, DUPONT agrees that the restrictions set forth in Section 13 and the restrictions on Project Mortgages set forth in Section 31(d) shall be removed.

SECTION 37. TENANT'S RIGHT OF FIRST OFFER.

In the event DUPONT elects to subdivide and sell the LEASED PREMISES apart from the rest of the LaPorte Plant, it shall notify TENANT of its intention to so sell the LEASED PREMISES. Within ten (10) days of the receipt of such notice, TENANT shall notify DUPONT if it elects to enter into negotiations to purchase the LEASED PREMISES. If DUPONT does not receive notice from TENANT of its election to enter into negotiations to purchase the LEASED PREMISES within such ten (10) day period, DUPONT shall be free to sell the LEASED PREMISES as it sees fit.

If TENANT notifies DUPONT within such ten (10) day period that it elects to enter into the purchase of the

LEASED PREMISES, then within ten (10) days of the receipt of that notice, both parties must appoint an independent appraiser who is MAI certified or the equivalent professional and knowledgeable and experienced in determining market value in Harris County, Texas. Each of those two appraisers must agree to the appointment of a third appraiser within five (5) days to determine Fair Market Value of the LEASED PREMISES. The Fair Market Value shall be the average of the two closest of the three appraisals, which all three (3) shall be completed within thirty (30) days. If one party shall fail to nominate an independent appraiser within the above-referenced ten (10) day period, then the determination of the Fair Market Value shall be made by the independent appraiser nominated by the other party. The cost of the independent appraiser(s) shall be borne equally by the two parties.

After the determination of the Fair Market Value of the LEASED PREMISES is made pursuant to the preceding paragraph, DUPONT shall, within ten (10) days notify TENANT if it is willing to sell the LEASED PREMISES to TENANT for an amount equal to such Fair Market Value to be paid in cash at closing. If DUPONT does not notify TENANT in accordance with the preceding sentence, DUPONT shall be barred from selling the LEASED PREMISES for a period of one (1) year and then may sell the LEASED PREMISES only in accordance with this Section.

Within ten (10) days of the receipt of such notice, TENANT shall notify DUPONT if it elects to purchase the LEASED PREMISES for such Fair Market Value provided that closing must occur within sixty (60) days. If DUPONT does not receive notice from TENANT of its election to purchase the LEASED PREMISES within such ten (10) day period or if closing has not occurred within such sixty (60) day period, TENANT'S rights of first offer are extinguished, and DUPONT shall be free to sell the LEASED PREMISES as it sees fit.

Notwithstanding anything to the contrary in this Section, in no event shall DUPONT be required to follow the

requirements of this Section if the sale of the LEASED PREMISES is part of a sale involving all or any other part of the LaPorte Plant.

SECTION 38. TENANT'S RIGHT OF FIRST REFUSAL.

If during the term of this Lease DUPONT elects to sell any portion of DUPONT's LaPorte Plant which includes the LEASED PREMISES, TENANT shall have the option to purchase the LEASED PREMISES at the higher of (i) the appraised value of the LEASED PREMISES or (ii) the price offered for the LEASED PREMISES by a third party which DUPONT wishes to accept ("Offered Price") provided such Offered Price is a bona fide offer from an unrelated third party. Within ten (10) days after the receipt of DUPONT's written notice that DUPONT is selling a portion of the LaPorte Plant which includes the LEASED PREMISES, TENANT shall notify DUPONT in writing whether or not TENANT elects to purchase the LEASED PREMISES. If TENANT elects not to purchase the LEASED PREMISES or if TENANT fails to notify DUPONT in writing of TENANT's decision within ten (10) days after the receipt of DUPONT's written notice, then TENANT's rights hereunder shall terminate. If TENANT properly notifies DUPONT of TENANT's election to purchase the LEASED PREMISES, then within ten (10) days of such notice, both parties must appoint an independent appraiser who is MAI certified or the equivalent professional and knowledgeable and experienced in determining market value in Harris County, Texas. Each of those two appraisers must agree to the appointment of a third appraiser within five (5) days to determine Fair Market Value of the LEASED PREMISES. The Fair Market Value shall be the average of the two closest of the three appraisals, all three (3) of which shall be completed within thirty (30) days. If one party shall fail to nominate an independent appraiser within the above referenced ten (10) day period, then the determination of the Fair Market Value shall be made by the independent appraiser

nominated by the other party. The cost of the independent appraiser(s) shall be borne equally by the two parties.

After the determination of Fair Market Value of the LEASED PREMISES is made, TENANT shall purchase the LEASED PREMISES for the higher of the Fair Market Value or the Offered Price. TENANT shall purchase the LEASED PREMISES upon the terms and conditions agreed to between DUPONT and the third party and shall close within sixty (60) days after the determination of Fair Market Value.

IN WITNESS WHEREOF, the parties hereto have caused this Lease to be executed on the day and year first above written.

WITNESS: E. I. DU PONT DE NEMOURS AND COMPANY

By: _____
David M. McAndrews

Title: Vice President and General
Manager - Packaging and
Industrial Polymers

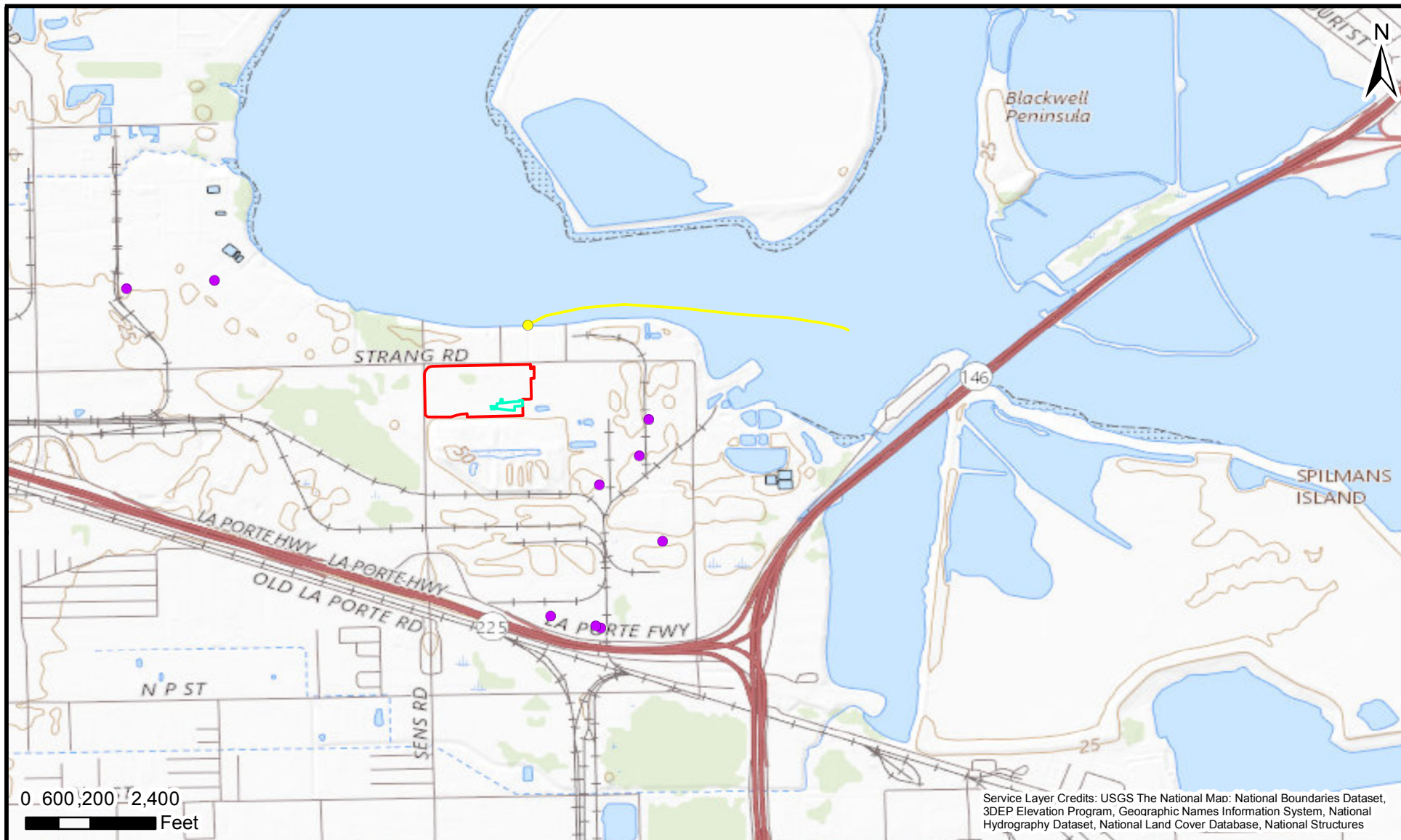
WITNESS NOLTEX L.L.C.

By: _____
Shoji Ito

Title: President

nolt2

Attachment 4
USGS Map



Legend

- Property Boundary
- Treatment Plant Boundary
- TCEQ PWS Wells
- Discharge Point
- 1 Mile Downstream

MCA LA PORTE SITE GENERAL LOCATION MAP MITSUBISHI CHEMICAL AMERICA INC HARRIS COUNTY, TEXAS



20465 State Highway 249, Suite 300
Houston, TX 77070

Appendix

Date: 3/13/2024

Project No.: 23433.00N

Drawn By: ELundeen

*Note: This is not a
Property Boundary Survey*



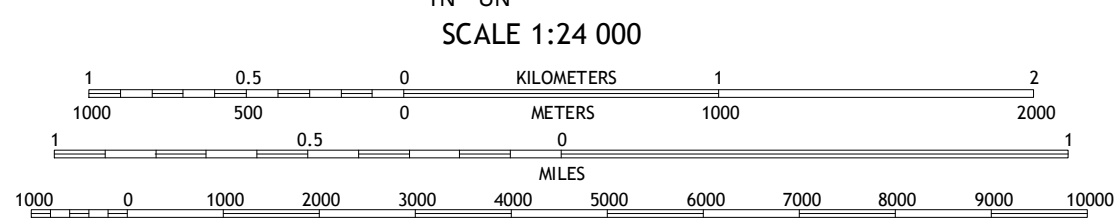
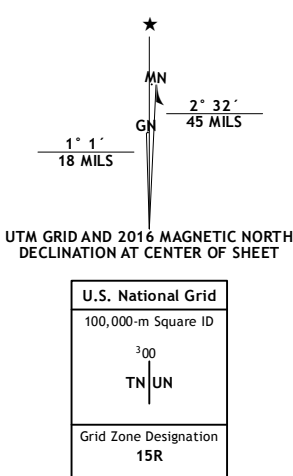
Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84), Projection and
1000-foot ticks: Texas Coordinate System of 1983 (south
central zone)

This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery.....NADIP, October 2014
Roads.....U.S. Census Bureau, 2014 - 2015
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset, 2014
Contours.....National Elevation Dataset, 2010
Boundaries.....Multiple sources; see metadata file 1972 - 2015

Wetlands.....FWS National Wetlands Inventory 1977 - 2014



CONTOUR INTERVAL 5 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19



ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

1	2	3
4	5	6
7	8	9

1 Jacinto City
2 Highlands
3 Mont Belvieu
4 Pasadena
5 Morgans Point
6 Friendswood
7 League City
8 Baytown

LA PORTE, TX
2016



Attachment 5
Supplemental Permit Information Form
(TCEQ Form 20971)

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 or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Mitsubishi Chemical America Inc

Permit No. WQ00 5265000EPA ID No. TX R000011106

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

12220 Strang Road, La Porte, TX 77571-9740

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):

First and Last Name: Laura Burnett

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

Title: Senior Environmental Engineer

Mailing Address: 12220 Strang Road

City, State, Zip Code: La Porte, TX 77571-9740

Phone No.: 281-842-5039 Ext.: Fax No.:

E-mail Address: Laura.Burnett@mcgc.com

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

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.

Discharge is directed from an outfall tank through a pipeline which runs from the facility to where it discharges in the Upper San Jacinto Bay.

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):

N/A

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

The discharge from the outfall does not impact the surrounding vegetation as it is transported to the discharge point via an enclosed pipeline. Existing land use is industrial co-polymer manufacturing facility.

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

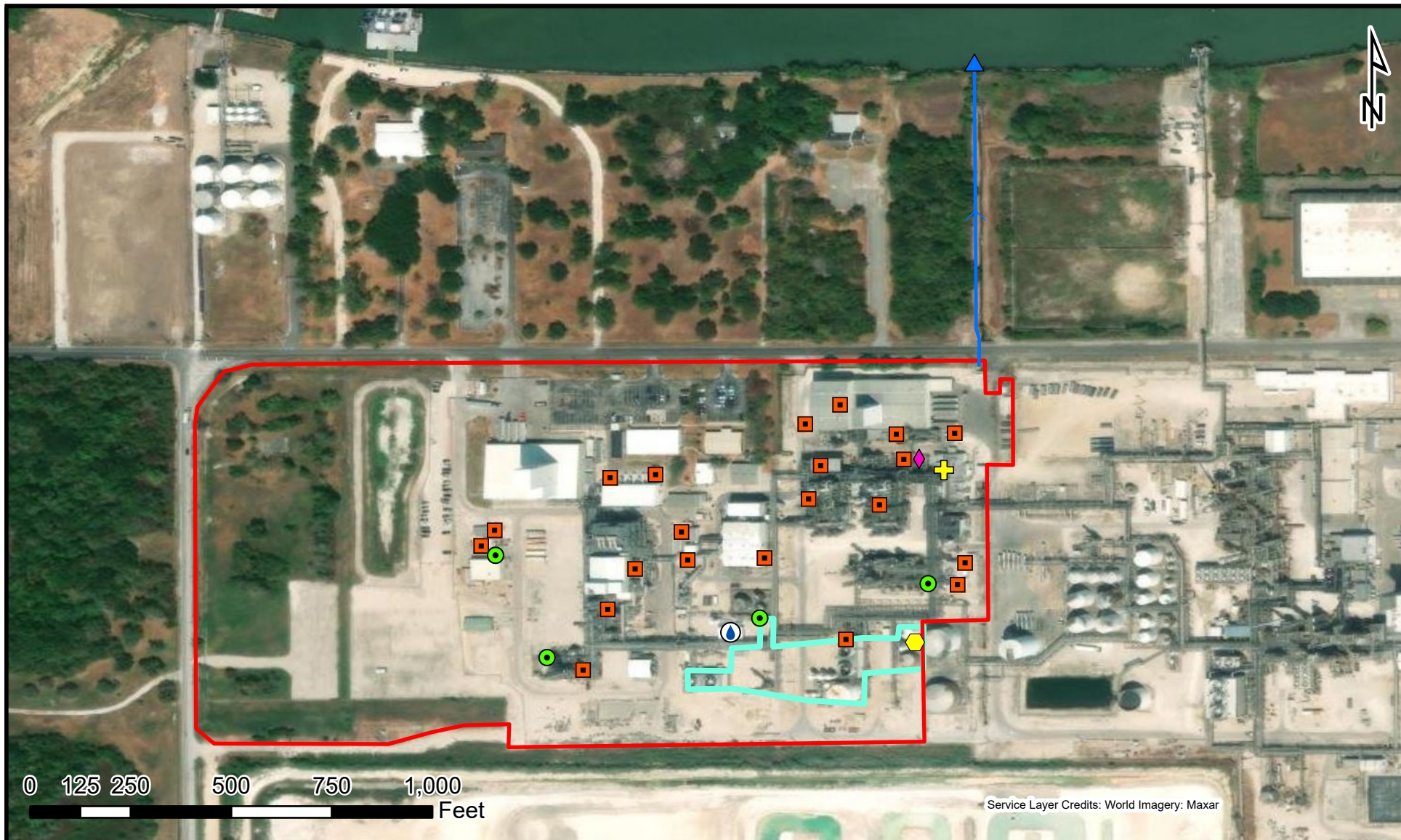
3. List construction dates of all buildings and structures on the property:

Facility construction began in 1989 by DuPont, who operated the facility from 1989 to 1993. Noltex purchased the facility 1997 and began production of resin in 1996 after retrofitting the plant.

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

Facility construction began in 1989 by DuPont, who operated the facility from 1989 to 1993. Noltex LLC, a subsidiary of Nippon Goshei (USA) Co. Ltd. purchased the facility 1997 and began production of SoarnoL™ in 1996 after retrofitting the plant. Mitsubishi Chemical America Inc has since acquired Nippon Goshei (USA) Co. Ltd. and operates the facility.

Attachment 6
Facility Map



Legend

- | | |
|-------------------------|-------------------------|
| Treatment Plant | Sampling point |
| Site Boundary | Outfall Tank |
| Outfall Pipe | Outfall 001 |
| Waste Collection Areas | Composite Sampling Unit |
| Material Handling Areas | Water Intake from City |

MCA LA PORTE SITE FACILITY DIAGRAM MITSUBISHI CHEMICAL AMERICA INC HARRIS COUNTY, TEXAS



20465 State Highway 249, Suite 300
Houston, TX 77070

Attachment 6

Date: 4/12/2024

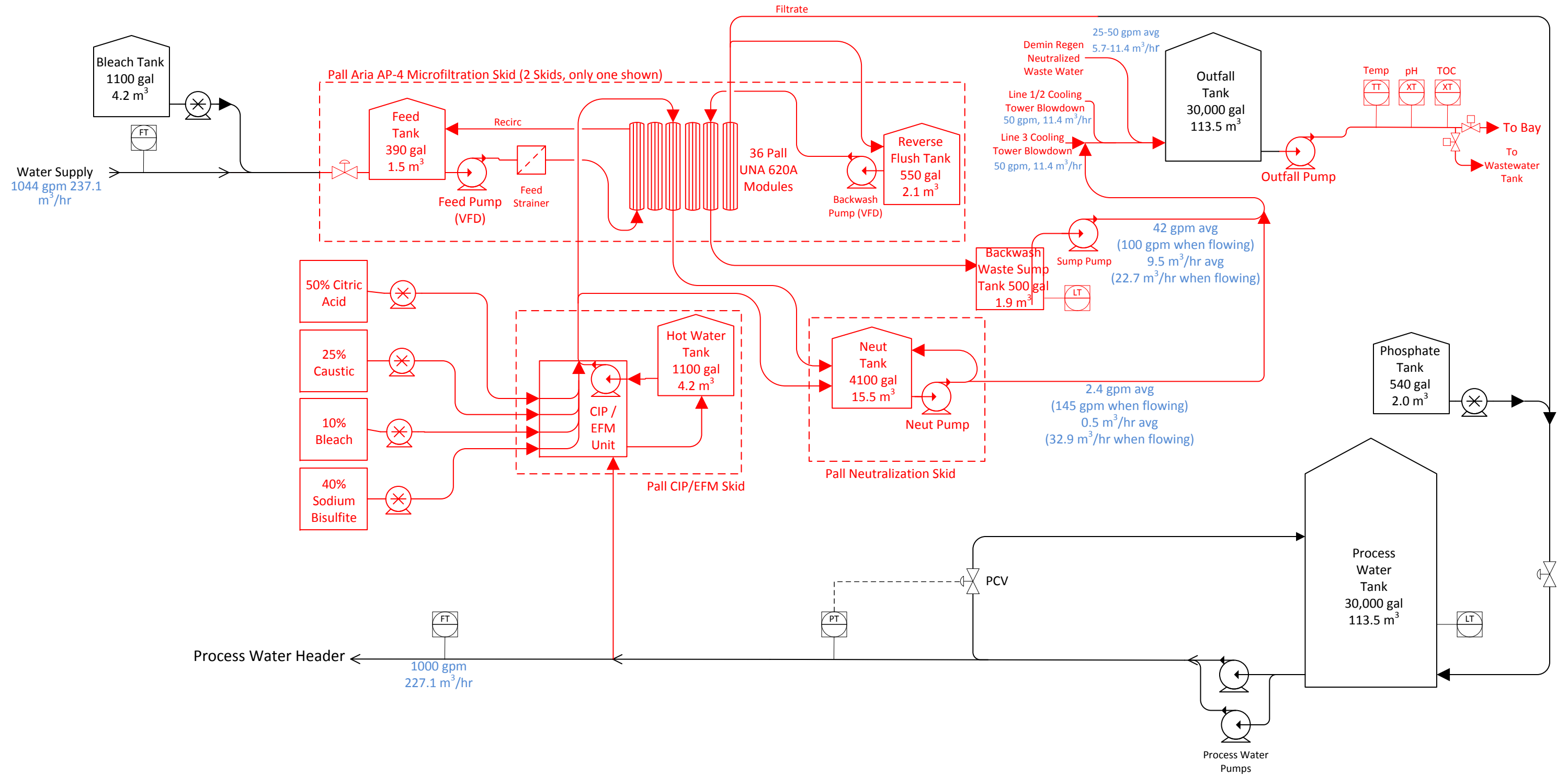
Project No.: 23433.00N

Drawn By: ELundeen

Note: This is not a
Property Boundary Survey

Attachment 7
Facility Flow Diagram

Wastewater Treatment Flow Diagram



Attachment 8
Safety Data Sheets with Summary

SDS Summary Sheet

Cooling Tower Blowdown Additive	Frequency of Use	Concentration
Dixichlor Bleach, Sodium Hypochlorite, Sodium Hypochlorite 10% - Water Treatment Chemical, Biocide	Daily	Varies
Skyhawk Liquid Caustic Soda 20 – 25% - Water Treatment Chemical	Daily	Vaires
ChemTreat Chemical Treatment CL2150 – Cooling Water Microbiocide	Only used in an upset-type situation*	Vaires
ChemTreat CL4400 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat CL450 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat CL457 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat FlexPro Plus CL5685 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat FlexPro CL5737 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat Quadrasperse® CL5898 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat CT708 – Potable Water Treatment	Only used in an upset-type situation*	Vaires
ChemTreat CT709 – Cooling Water Treatment	Only used in an upset-type situation*	Vaires
EcoServices Sulfuric Acid 93% Technical	Daily, weekly, or monthly	Vaires

*Discharge would be suspended during usage of these chemicals



SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat BL1253
Product Use:	Boiler Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	April 3, 2017
Revision Date:	April 3, 2017
Revision Number:	17040301AN

Section 2. Hazard(s) Identification



Signal Word:	DANGER
GHS Classification(s):	Respiratory sensitization – Category 1 Sensitization Skin – Category 1 Carcinogenicity – Category 2
Hazard Statement(s):	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction. H351 Suspected of causing cancer.
Precautionary Statement(s):	Sulphites may cause sensitization to susceptible individuals.
Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P284 Wear respiratory protection. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood.

**Response:**

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Sodium sulfite	7757-83-7	7 – 13
Ethylene diamine tetraacetic acid, tetrasodium salt	64-02-8	0.1 – 1.0

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:

Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin:

Wash with plenty of soap and water.



Ingestion:	Rinse mouth. Call a poison center or doctor/physician if you feel unwell.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Use water spray to keep containers cool.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.

Section 7. Handling and Storage

Handling:

Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage:

Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Do not freeze. Store above Freeze Point. If freezes, then product is unusable.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Sodium sulfite	N/E	N/E
Ethylene diamine tetraacetic acid, tetrasodium salt	N/E	N/E

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection**Eyes:**

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Light Straw, Clear
Specific Gravity:	1.170 @ 20°C
pH:	8.0 @ 20°C, 100.0%
Freezing Point:	23°F
Flash Point:	N/D
Odor:	Odorless
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	212°F
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	9.76 LB/GA
Vapor Pressure:	N/D
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong oxidizers, Strong acids.
Hazardous Decomposition Products:	Oxides of sulfur.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sodium sulfite	Oral	LD50	820 MG/KG	Mouse
Ethylene diamine tetraacetic acid, tetrasodium salt	Oral	LD50	3030 MG/KG	Rat
	Dermal	LD50	>5000 MG/KG	Rabbit

Carcinogenicity Category

Component	Source	Code	Brief Description
Sodium sulfite	N/E	N/E	N/E
Ethylene diamine tetraacetic acid, tetrasodium salt	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D



Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	5072 mg/l
Ceriodaphnia dubia	48h	LC50	769 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
Not a RCRA-regulated hazardous waste when disposed in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A



Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Sodium sulfite	N/A	N/A	N/A
Ethylene diamine tetraacetic acid, tetrasodium salt	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Sodium sulfite	None.
Ethylene diamine tetraacetic acid, tetrasodium salt	None.



International Regulations

Canada

WHMIS Classification: N/A

Controlled Product Regulations (CPR): N/A

Compliance Information

NSF: This product conforms to the requirements of the NSF Nonfood Compounds Registration Program, Registration #144394; Category G6, G7.

Food Regulations: FDA: All ingredients in this product are authorized in 21 CFR 173.310 for use as "Boiler Water Additives" where the steam may contact food.

KOSHER: This product is certified by the Orthodox Union as Kosher for Passover and year-round use. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Fontana, CA.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	2
Flammability:	1
Physical Hazard:	0
PPE:	X

**Notes:**

The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by:

Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date:

April 3, 2017

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product identifier: DIXICHLOR
Synonyms: Bleach, Sodium Hypochlorite, Sodium Hypochlorite 10%
Intended use: Swimming pool chlorinator, Hard surface cleaner, Water treatment chemical, Biocides
Uses Advised Against: None identified. This is a pesticide product, do not use in a pesticide application that is not included on the label.

Company Identification DPC Industries, Inc.
DPC Enterprises, LP
DXI Industries, Inc.
DX Terminals
PO Box 24600
Houston, TX 77229-4600

Emergency
CHEMTREC (USA) (800) 424-9300
24 hour Emergency Telephone No. (281) 457-4888
www.dxgroup.com

2. Hazard identification of the product

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation Serious eye damage/eye irritation Specific target organ toxicity, single exposure	Category 1 Category 1 Category 3 respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment, acute hazard Hazardous to the aquatic environment, long-term hazard	Category 1 Category 2

Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Signal Word	Danger
Hazard Statements	Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. May be corrosive to metals
Precautionary Statements	
Prevention	Do not breathe mist / vapors / spray. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves / eye protection / face protection. Use in well ventilated area.
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Remove / Take off immediately all contaminated clothing. Wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor / physician if you feel unwell. IF IN EYES: Rinse continuously 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. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight.
Disposal	Dispose of contents / container in accordance with local / national regulations.

Safety Data Sheet

3. Composition/information on ingredients

Synonyms: Bleach, Sodium Hypochlorite, Sodium Hypochlorite 10%

Ingredient	CAS Number	Percent (%)	NOTES
Sodium hypochlorite	7681-52-9	10 – 12.49	Substance classified with a health or environmental hazard.
Sodium chloride	7647-14-5	7 - 8	Substance classified with a health or environmental hazard.
Sodium hydroxide	1310-73-2	.1 - 5	Substance classified with a health or environmental hazard. Substance with a workplace exposure limit.

4. First aid measures

General	Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Inhalation	Move victim to fresh air. Call emergency medical care. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.
Eyes	Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart. Get medical attention. Remove contact lenses if present and easy to do - continue rinsing.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	If accidentally swallowed obtain immediate medical attention. Rinse mouth. Keep at rest. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into lungs.
Most important symptoms and effects, both acute and delayed	
Overview	Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Recommended Extinguishing media	Alcohol resistant foam, CO ² , dry chemical powder, water spray. Do not use water jet.
Special hazards arising from the substance or mixture	Hydrogen chloride and chlorine. Chlorine gas rate of decomposition increases with the concentration with temperatures above 85 °F (30 °C). Do not breathe mist / vapors / spray.
Advice for fire-fighters	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.). Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. TOXIC; inhalation, ingestion or skin contact with material may cause severe injury or death. Avoid any skin contact. Contact with molten substance may cause severe burns to skin and eyes. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. ERG Guide No. 154

Safety Data Sheet

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Local authorities should be contacted if significant spill cannot be contained.
Environmental precautions	Do not allow spills to enter drains or watercourses.
Methods and material for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

7. Handling and storage

Precautions for safe handling	Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Chemical attack increases with solution strength. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.
Conditions for safe storage, including any incompatibilities	Handle containers carefully to prevent damage and spillage. Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance. Store away from and do not mix with incompatible materials such as acids, ammonia, urea, oxidizers, organics and metals such as nickel, copper, tin, aluminum and iron.

8. Exposure controls and personal protection

Exposure Control parameters

CAS No.	Ingestion	Source	Value
1310-73-2	Sodium hydroxide	OSHA	TWA 2 mg/m3
		ACGIH	Ceiling: 2 mg/m3
		NIOSH	C 2 mg/m3
7647-14-5	Sodium chloride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
7681-52-9	Sodium hypochlorite.	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

Individual protection measures, such as personal protective equipment

Respiratory	Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.
Eyes	Wear face shield with safety glasses with side shields and/or safety goggles.
Skin	Chemical resistant clothing such as coveralls/apron boots should be worn. Chemical Impervious gloves.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. Eye wash and safety shower must be available when handling this product
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Safety Data Sheet

9. Physical and chemical properties

Appearance	Clear, pale yellow, or greenish Liquid
Odor	Pungent, chlorine odor
Odor threshold	0.9 mg/m ³
pH	12 - 13
Melting point / freezing point	7 °F (-13.9 °C)
Initial boiling point and boiling range	Decomposes above 230 °F (110 °C)
Flash Point	Nonflammable
Evaporation rate (Ether = 1)	Not Established
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (mmHg)	17.5 (@ 20 °C)
Vapor Density	Not Established
Specific Gravity	1.20 - 1.40
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature (°C)	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC %	Not Measured
Other information	No other relevant information.

10. Stability and reactivity

Reactivity:	Hazardous Polymerization will not occur.
Chemical stability:	Stable under normal circumstances.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Contact with incompatible materials. Acid contact will produce chlorine gas.
Incompatible materials:	Any acidic material, ammonia, urea, oxidizers, organics and metals such as nickel, copper, tin, aluminum and iron.
Hazardous decomposition products:	No hazardous decomposition products are known.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Sodium hypochlorite (7681-52-9)	5,000.00, Rat - Category: 5	10,000.00, Rabbit - Category: NA	10.50, Rat - Category: 4	No data available	No data available
Sodium chloride (7647-14-5)	1,350.00, Rabbit - Category: 4	100.00, Rat - Category: 2	40.00, Mouse - Category: NA	10,500.00, Rat - Category: NA	No data available
Sodium hydroxide (1310-73-2)	6,600.00, Mouse - Category: NA	1,350.00, Rabbit - Category: 4	600.00, Mouse - Category: NA	No data available	No data available

Safety Data Sheet

11. Toxicological information

Acute toxicity (cont.)

Item	Hazard
Acute Toxicity (mouth)	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
Acute Toxicity (skin)	Harmful in contact with skin.
Acute Toxicity (inhalation)	Vapors and spray mist may irritate throat and respiratory system and cause coughing.
Skin corrosion/irritation	Causes severe skin burns and eye damage
Eye damage/irritation	Causes serious eye damage.
Sensitization (respiratory)	No data available.
Sensitization (skin)	No data available.
Germ toxicity	No data available.
Carcinogenicity	Not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.
Reproductive Toxicity	No data available.
Specific target organ systemic toxicity (single exposure)	May cause respiratory irritation.
Specific target organ systemic Toxicity (repeated exposure)	Not Applicable.
Aspiration hazard	Not classified; however droplets of product may be aspirated into lungs, through ingestion or vomiting and may cause serious chemical pneumonia.

12. Ecological information

Toxicity: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Sodium hypochlorite (7681-52-9)	0.08, Pimephales promelas	0.032, Daphnia magna	0.40 (72 hr), Dunaliella primolecta
Sodium chloride (7647-14-5)	1,100.00, Freshwater Fish	3,310.00, Daphnia magna	Not Available
Sodium hydroxide (1310-73-2)	196.00, Poecilia reticulata	40.38, Ceriodaphnia dubia	Not Available

Persistence and degradability	There is no data available on the preparation itself.
Bioaccumulative potential	Not Measured
Mobility in soil	No data available.
Results of PBT and vPvB assessment	This product contains no PBT/vPvB chemicals.
Other adverse effects	No other effects are expected.

13. Disposal considerations

Waste treatment methods:	Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.
Waste from material:	The waste determination should be made in discussion between the user and the waste disposal company.
Container Management:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Safety Data Sheet

14. Transport information

UN number:	UN1791
UN proper shipping name:	Hypochlorite solutions
Transport hazard class(es)	
DOT (Domestic Surface Transportation)	
DOT Proper Shipping Name:	Hypochlorite solutions
DOT Hazard Class	8
DOT Label:	8
UN / NA Number:	UN1791
DOT Packing Group:	III
CERCLA/DOT RQ:	100 lbs.
Environmental hazards:	IMDG Marine Pollutant: Yes (Sodium hypochlorite)
Special precautions for user:	Not Applicable

15. Regulatory information

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory.	
WHMIS Classification	D2B E	
US EPA Tier II Hazards:	Fire:	No
	Sudden Release of Pressure:	No
	Reactive:	No
	Immediate (Acute):	Yes
	Delayed (Chronic):	No
SARA 302 Extremely Hazardous Substance:	No	
SARA 311/312 Chemicals and RQs (lbs) (>0.1%) :	100	
SARA 313 (TRI)	No	
CAA Section 112 Hazardous Air Pollutant	No	
CAA Section 112R Risk Management Plan	No	
State Regulations:	N.J. RTK Substances (>1%)	Listed
	Penn RTK Substances (>1%)	Listed
	California Prop 65	Not Listed

16. Other information:

EPA Registration Number: 813-16

NSF Maximum Use Level (STD 60): Check BOL for facility Data. (46 to 105 mg/L)

Revision Information: 5/4/2017 – Section 3: Revised EPA registration.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

THE USER IS CAUTIONED TO PERFORM HIS OWN HAZARD EVALUATION AND TO RELY ON HIS OWN DETERMINATIONS.

SAFETY DATA SHEET

Version 4.4
Revision Date 07/03/2014
Print Date 07/10/2014

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Product identifiers**

Product name : Calcium chloride

Product Number : C8106
Brand : Sigma-Aldrich
Index-No. : 017-013-00-2

CAS-No. : 10035-04-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H315 : Causes skin irritation.
H319 : Causes serious eye irritation.

Precautionary statement(s)

P264 : Wash skin thoroughly after handling.
P280 : Wear protective gloves/ eye protection/ face protection.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 : Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 : If skin irritation occurs: Get medical advice/ attention.
P337 + P313 : If eye irritation persists: Get medical advice/ attention.
P362 : Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Calcium chloridedihydrate

Formula : $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$

Molecular Weight : 147.01 g/mol

CAS-No. : 10035-04-8

EC-No. : 233-140-8

Index-No. : 017-013-00-2

Hazardous components

Component	Classification	Concentration
Calcium chloride dihydrate		
	Eye Irrit. 2A; H319	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas, Calcium oxide

Nature of decomposition products not known.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

a) Appearance	Form: crystalline Colour: white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	5.0 - 8 at 147 g/l at 25 °C (77 °F)
e) Melting point/freezing point	Melting point/range: 176 °C (349 °F) - dec.
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	0.01 hPa (0.01 mmHg) at 20 °C (68 °F)
l) Vapour density	no data available
m) Relative density	1.850 g/cm ³
n) Water solubility	147 g/l at 20 °C (68 °F) - completely soluble
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY**10.1 Reactivity**

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong acids, Borane/boron oxides, Zinc, Calcium oxide, Methyl vinyl ether, Calcium chloride is attacked by bromine trifluoride

10.6 Hazardous decomposition products

Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Inhalation: no data available

Dermal: no data available

no data available

Skin corrosion/irritation

Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - rabbit

Result: Moderate eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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.

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.

Reproductive toxicity

no data available

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: EV9810000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

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

SARA 313 Components

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.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Calcium chloride dihydrate

CAS-No.
10035-04-8

Revision Date

New Jersey Right To Know Components

California Prop. 65 Components

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

16. OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3.**

Eye Irrit.	Eye irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.

HMIS Rating

Health hazard:	2
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 4.4

Revision Date: 07/03/2014

Print Date: 07/10/2014

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

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

· **Product Identifier:** Liquid Caustic Soda 20-25%

· **Synonyms:** Sodium Hydroxide 20-25%

· **Product Use:**

Strong chemical base in the manufacture of pulp and paper, textiles, drinking water, soaps and detergents.

· **Manufacturer/Supplier:**

Skyhawk Chemicals, Inc.

701 N. Post Oak Rd., Ste. 540

Houston, TX 77024

Phone: 713-957-2200 or 800-535-2847, Fax: 713-957-0345

E-Mail: order@skyhawkchemicals.com

· **Emergency Telephone Number:**

In case of a chemical emergency, contact CHEMTREC (24 hrs) at:
+1 (800) 424-9300 (USA), ACCT#: CCN721839

Section 2: Hazards Identification

· **Hazard Classification:**



GHS05

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

· **Signal Word:** DANGER

· **Precautionary Statements:**

P260 Do not breathe mist.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 If exposed or if you feel unwell:

P310 Immediately call a doctor.

P501 Dispose of contents/container in accordance with local regulations.

· **NFPA Ratings (scale 0 - 4):**



Health = 3

Fire = 0

Reactivity = 0

(Contd. on Page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%


(Contd. from Page 1)

Additional Information:

If you do not understand the hazards or safety precautions described in this data sheet, contact your supervisor or safety administrator before handling this product.

Section 3: Composition/Information on Ingredients

Dangerous Components:

CAS No.	Description	%
1310-73-2	sodium hydroxide	20-25%
	 Skin Corr. 1A, H314	

Section 4: First Aid Measures

General information:

Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas.

After Inhalation:

Remove victim to fresh air.
Administer oxygen if breathing is difficult.
Administer artificial respiration if breathing has stopped.
Onset of symptoms may be delayed up to 48 hours.
Get immediate medical attention.

After Skin Contact:

Remove contaminated clothing and shoes. Wash affected area with soap and water.
Use caution to avoid spreading contamination while washing.
Delayed skin damage is possible if product is not completely washed off.
Get immediate medical attention.

After Eye Contact:

In case of accidental contact, immediately flush eyes with water.
Hold eyelids open to ensure adequate flushing.
Remove contact lenses, if present and easy to do. Continue rinsing.
Get immediate medical attention.

After Swallowing:

Rinse mouth.
Administer 1-2 glasses of water to dilute ingested material.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Get immediate medical attention.

Most Important Symptoms and Effects: No further relevant information available.

Section 5: Firefighting Measures

Suitable Extinguishing Agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Special Firefighting Hazards: No special firefighting hazards expected.

(Contd. on Page 3)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 2)

· Protective Equipment:

In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved self-contained breathing apparatus (SCBA) and full protective clothing.

· Additional Information: Evacuate all non-essential personnel from the danger area.

Section 6: Accidental Release Measures

· Personal Precautions, Protective Equipment and Emergency Procedures:

In case of a spill or other accidental release of this material, contact your supervisor, safety administrator, or emergency response team immediately.

Restrict access to keep out unauthorized or unprotected personnel.

Stay upwind of spilled material.

Wear appropriate personal protective equipment during all clean-up activities. See Section 8 for more information.

Avoid inhalation and direct contact.

All clean-up personnel must be properly trained.

· Environmental Precautions:

Keep spilled material out of sewage/drainage systems and waterways.

This product contains a U.S. EPA Reportable Quantity (RQ) substance. If amounts exceeding the Reportable Quantity are released, notification of the National Response Center +1 (800) 424-8802 is required. See Section 15 for more information.

· Methods for Containment and Clean-Up:

Secure the source of the leak if conditions are safe.

Use neutralizing agent.

Collect using an appropriate absorbent material such as clay or sand.

Place waste in an appropriate container for disposal.

Use care during clean-up to avoid exposure to the material and injury from broken containers.

Section 7: Handling and Storage

· Precautions for Safe Handling:

Avoid inhalation and direct contact.

Wear appropriate personal protective equipment.

Do not mix with acids, ammonia, alcohol, ethers or hydrocarbons.

· Conditions for Safe Storage:

Store in closed, properly labeled containers.

Protect containers from heat, physical damage, ignition sources and incompatible materials.

Have emergency equipment for fires and spills readily available.

· Additional Information:

If you do not understand the hazards or safety precautions described in this data sheet, contact your supervisor or safety administrator before handling this product.

(Contd. on Page 4)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 3)

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

1310-73-2 sodium hydroxide

PEL (USA)	Eight-Hour Value: 2 mg/m ³
REL (USA)	Ceiling Limit Value: 2 mg/m ³
TLV (USA)	Ceiling Limit Value: 2 mg/m ³
EL (Canada)	Ceiling Limit Value: 2 mg/m ³
EV (Canada)	Ceiling Limit Value: 2 mg/m ³
WEL (Great Britain)	Short-Term Value: 2 mg/m ³

· **Exposure Controls:** Ensure emergency eyewash and shower facilities are available.

General Protective and Hygienic Measures:

Wash thoroughly after handling.
Follow all safety precautions, posted signs and warnings.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

Respiratory Protection:

An industrial hygiene risk assessment is required to determine appropriate respiratory protection.
An air-purifying respirator may be appropriate under limited exposure conditions.
Perform a respirator fit/seal check after donning.
Protection provided by air-purifying respirators is limited.
Wear a self-contained breathing apparatus (SCBA) if there is a potential for uncontrolled release, exposure levels are not known, or in other circumstances where air-purifying respirators may not provide adequate protection.

Hand Protection:



Chemical resistant gloves.

Work gloves may be worn over chemical resistant gloves.
Wear a second pair of chemical resistant gloves for added protection.
Tape gloves to coveralls or suit, if worn.
Use caution when removing gloves to avoid exposure to hazardous chemicals.

Eye/Face Protection:



Safety glasses with side shields.

Splash goggles/mono-goggles recommended during tasks with high potential for exposure.

Body Protection:

Lab coat recommended for small scale operations.
Tasks with a high probability for splashing or skin contact may require:
Chemical resistant coveralls or apron.
Heavy duty chemical resistant boots.

(Contd. on Page 5)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 4)

Additional Information:

If unusual exposures are expected, an industrial hygiene review of work practices, engineering controls and personal protective equipment is recommended.

Section 9: Physical/Chemical Properties

- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Odorless
- **pH Value at 20 °C (68 °F):** >12
- **Boiling Point:** 120 °C (248 °F)
- **Flash Point:** Not applicable.
- **Vapor Pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density at 20 °C (68 °F):** 1.35 g/cm³ (11.266 lbs/gal)

Section 10: Stability and Reactivity

- **Chemical Stability/Reactivity:** Stable if used and stored according to the specifications listed below.
- **Conditions to Avoid:**
Keep away from heat, sparks and open flames.
Keep away from incompatible materials.
- **Possibility of Hazardous Reactions/Incompatible Materials:**
Keep away from strong oxidizers.
Keep away from halogenated compounds.
Do not mix with acids, ammonia, alcohol, ethers or hydrocarbons.
- **Hazardous Decomposition Products:** No data available.

Section 11: Toxicological Information

- **Acute Toxicity:** Based on available data, the classification criteria are not met.
- **Relevant LD/LC50 Values:**
1310-73-2 sodium hydroxide
Oral LD50 2000 mg/kg (rat)
- **Skin Irritation:**
Causes severe skin burns and eye damage.
Causes severe skin burns and eye damage.
- **Eye Irritation:**
Causes severe skin burns and eye damage.
Causes serious eye damage.
- **Respiratory Irritation:** Corrosive to the respiratory tract.

(Contd. on Page 6)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 5)

 · **Sensitization/Allergic Reaction:** No data available.

Section 12: Ecological Information

- **Aquatic Toxicity:** No data available.
- **Persistence and Degradability:** No data available.
- **Bioaccumulative Potential:** No data available.

Section 13: Disposal Considerations

- **Disposal Instructions:**
Keep spilled material out of sewage/drainage systems and waterways.
Maximize product recovery for reuse or recycling.
Waste materials may be hazardous due to the pH/corrosivity.
Dispose of waste in accordance with applicable laws and regulations.
- **Additional Information:**
It is the responsibility of the product user to determine at the time of disposal whether a material containing or derived from this product should be classified as hazardous waste.

Section 14: Transport Information

- **UN Number:**
- **DOT, ADR, IMDG, IATA** UN1824
- **UN Proper Shipping Name:**
- **DOT:** Sodium hydroxide solution
- **ADR:** 1824 Sodium hydroxide solution
- **IMDG, IATA** SODIUM HYDROXIDE SOLUTION

 · **Transport Hazard Class(es):**

 · **DOT:**


- **Class:** 8 Corrosive substances
- **Label:** 8

(Contd. on Page 7)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 6)

· ADR, IMDG, IATA

· Class: 8 Corrosive substances

· Label: 8

· Packing Group:
· DOT, ADR, IMDG, IATA II

· Environmental Hazards: Not applicable.

· Marine Pollutant: No

· Special Precautions: Warning: Corrosive substances

· Danger Code (Kemler): 80

· EMS Number: F-A,S-B

· Segregation Groups: Alkalis

· Additional Information: Shippers must consult transportation regulations for packaging instructions, quantity limitations and other regulatory information applicable to the desired mode of transport.

· DOT:
· Quantity Limitations: On passenger aircraft/rail: 1 L
On cargo aircraft only: 30 L

· Remarks: This product contains a U.S. EPA Reportable Quantity (RQ) substance. If amounts exceeding the Reportable Quantity are released, notification of the National Response Center +1 (800) 424-8802 is required. See Section 15 for more information.

Shippers must consult transportation regulations for packaging instructions, quantity limitations and other regulatory information applicable to the desired mode of transport.

· ADR:
· Excepted Quantities (EQ): Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· Tunnel Restriction Code: E

· IMDG:
· Limited Quantities (LQ): 1L

· Excepted Quantities (EQ): Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

(Contd. on Page 8)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

(Contd. from Page 7)

* Section 15: Regulatory Information

· **U.S. Superfund Amendments & Reauthorization Act (SARA) 355 (Extremely Hazardous Substances):**

None of the ingredients are listed.

· **U.S. Superfund Amendments & Reauthorization Act (SARA) 313 (Specific Toxic Chemical Listings):**

None of the ingredients is listed.

· **U.S. Environmental Protection Agency Reportable Quantity:**

1310-73-2 sodium hydroxide: 1,000 lbs.

· **U.S. Toxic Substances Control Act (TSCA):**

All ingredients are listed.

· **California Proposition 65 Carcinogens:**

Materials used in the manufacturing process may result in contamination with trace quantities (<0.0001%) of various metals listed under Proposition 65.

None of the ingredients is listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

· **Canadian Ingredient Disclosure List (limit 0.1%)**

None of the ingredients are listed.

· **Canadian Ingredient Disclosure List (limit 1%):**

1310-73-2 sodium hydroxide

· **Container Labeling According to Regulation (EC) No 1272/2008:**

The product is classified and labeled according to the CLP regulation.

· **Hazard Pictograms:**



GHS05

· **Signal Word:** DANGER

· **Hazard Statements:**

H314 Causes severe skin burns and eye damage.

· **Precautionary Statements:**

P260 Do not breathe mist.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 If exposed or if you feel unwell:

P310 Immediately call a doctor.

(Contd. on Page 9)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date Printed: 08/11/2016

Version 4

Date Reviewed: 08/11/2016

Product Identifier: Liquid Caustic Soda 20-25%

P501

Dispose of contents/container in accordance with local regulations.

(Contd. from Page 8)

Section 16: Other Information

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Skyhawk Chemicals, Inc. at the time it was prepared. Skyhawk Chemicals, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, Skyhawk Chemicals, Inc. and its subsidiaries cannot guarantee that these are the only hazards that exist. Skyhawk Chemicals, Inc. assumes no legal responsibility for loss, damage or expense arising out of, or in any way connected with, the handling, storage, use or disposal of this product.

· **Department Issuing Safety Data Sheet:** Corporate Environment, Health & Safety

· **Sources & References:**

This Safety Data Sheet conforms to regulation 1907/2006/EC (REACH). This product has been classified in accordance with European CLP regulations (1272/2008/EC) and the U.S. Hazard Communication standard (29 CFR 1910.1200).

* - Indicates that data has been updated from the previous version.

1. Identification

Product identifier SODIUM HYDROXIDE 20%
Other means of identification None.
Recommended use ALL PROPER AND LEGAL PURPOSES
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company name Brenntag Great Lakes, Inc.
Address 4420 N. Harley Davidson Ave Suite A
Wauwatosa, WI 53225
Telephone 262-252-3550
E-mail Not available.
Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 1A
Serious eye damage/eye irritation Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.
Label elements



Signal word Danger
Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage.
Precautionary statement
Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves/protective clothing/eye protection/face protection.
Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.
Storage Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SODIUM HYDROXIDE (NA(OH))		1310-73-2	20
Other components below reportable levels			80

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	CLEAR TO SLIGHTLY TURBID

Odor NO CHARACTERISTIC

Odor threshold Not available.

pH Not available.

Melting point/freezing point 41 °F (5 °C)

Initial boiling point and boiling range 675.68 °F (357.6 °C) estimated

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure	0.13 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	10.23 lbs/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	80 % estimated
Specific gravity	1.23

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
--	---

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.

Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1824
UN proper shipping name	SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	154
DOT information on packaging may be different from that listed.	

DOT



15. Regulatory information

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

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

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

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Massachusetts RTK - Substance List

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

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

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Rhode Island RTK

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	03-27-2015
Revision date	07-18-2015
Version #	04
HMIS® ratings	Health: 3 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 3 Flammability: 0 Instability: 0
Disclaimer	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
Revision Information	Physical and chemical properties: Color Physical and chemical properties: Odor



Univar
3075 Highland Pkwy ST 200
Lawrence, IL 60515
425-889-3400

SAFETY DATA SHEET

1. Identification

Product identifier: CITIRC ACID ANHYDROUS

Other means of identification

SDS number: 000100004036

Recommended use and restriction on use

Recommended use: Reserved for industrial and professional use.

Restrictions on use: Not known.

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

Serious Eye Damage/Eye Irritation Category 2A

Label Elements

Hazard Symbol



Signal Word

Warning

Hazard Statement	Causes serious eye irritation. May form combustible dust concentrations in air.
Precautionary Statements	
Prevention	Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust. Prevent dust accumulation to minimize explosion hazard. Use only outdoors or in a well-ventilated area.
Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Storage	Keep container tightly closed.
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 (%)*
Citric Acid		77-92-9	100%

* 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:	Get medical attention if symptoms occur.
Ingestion:	Rinse mouth thoroughly. Never give liquid to an unconscious person.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped.
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:	Get medical attention if symptoms occur.
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5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	Water fog. 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. Combustible solid. Dust may form explosive mixtures with air.
Special protective equipment and precautions for firefighters	
Special fire fighting procedures:	Powdered material may form explosive dust-air mixtures.
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:	Keep upwind. Ventilate closed spaces before entering them. Avoid breathing dust/fume/gas/mist/vapors/spray.
Methods and material for containment and cleaning up:	Sweep or scoop up and remove. Avoid dust formation. Remove sources of ignition.

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. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Avoid generation and spreading of dust. Ventilate as needed to control airborne dust. Use explosion-proof ventilation equipment if airborne dust levels are high. Avoid breathing mists or vapors. Avoid contact with eyes and prolonged or repeated contact with skin. Use personal protective equipment as required. Container must be kept tightly closed. Wash hands thoroughly after handling. Remove and wash contaminated clothing promptly.
Conditions for safe storage, including any incompatibilities:	Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls

Minimize dust generation and accumulation. Local ventilation should be provided. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection:

Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection:

Chemical resistant gloves.

Other:

Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. If respirators are used, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134). Seek advice from local supervisor.

Hygiene measures: Avoid contact with eyes. Observe good industrial hygiene practices.

9. Physical and chemical properties

Physical state:	solid
Form:	Crystals or powder.
Color:	opaque white
Odor:	Odorless
Odor threshold:	No data available.
pH:	2.2
Melting point/freezing point:	153 °C
Initial boiling point and boiling range:	No data available.
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 (%):	10 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	1.00
Solubility(ies)	
Solubility in water:	Completely 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.
Other information	

Minimum ignition temperature: 101.11 °C

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. Avoid conditions which create dust. Dust clouds may be explosive under certain conditions.
Incompatible Materials:	Strong bases. Strong oxidizers
Hazardous Decomposition Products:	Material is stable under normal conditions.

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:	LD 50 (Mouse): > 3,000 mg/kg Not classified for acute toxicity based on available data.
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Dermal

Product:	ATEmix (): 2,000 mg/kg
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Inhalation

Product:	No data available.
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Repeated dose toxicity

Product:	No data available.
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Skin Corrosion/Irritation

Product:	Irritating and defatting to skin. May cause eczema-like skin disorders (dermatitis).
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Serious Eye Damage/Eye Irritation

Product:	May irritate and cause redness and pain. May cause blurred vision and serious eye damage.
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Respiratory or Skin Sensitization

Product:	Not a skin sensitizer.
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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: May be toxic to aquatic organisms.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Citric Acid LC50 (Green or European shore crab (*Carcinus maenas*), 48 h): 160 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: May be toxic to aquatic organisms.

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_{ow})

Product: No data available.

Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

Citric acid No data available.

13. Disposal considerations

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

Not regulated for US DOT transport.

Not regulated for IATA transport.

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):

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Citric Acid	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)

None present or none present in regulated quantities.

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

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Inventory Status: Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) 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:	On or 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:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	On or in compliance with the inventory
Mexico INSQ:	Not 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

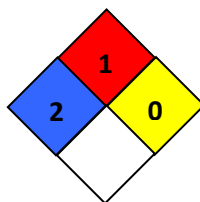
HMIS Hazard ID

Health	*	2
Flammability		1
Physical Hazards		0
PERSONAL PROTECTION		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: 02/16/2017
Revision Date: No data available.
Version #: 1.2
Further Information: No data available.



Univar USA Inc Safety Data Sheet

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

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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



SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CL450
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 20, 2017
Revision Date:	March 20, 2017
Revision Number:	17032001AN

Section 2. Hazard(s) Identification

Signal Word:	WARNING
GHS Classification(s):	Eye damage/irritation – Category 2b Acute Toxicity Dermal – Category 5 Acute Toxicity Inhalation – Category 5 Acute Toxicity Oral – Category 5 Hazardous to the aquatic environment Acute – Category 3
Hazard Statement(s):	H320 Causes eye irritation. H313 May be harmful in contact with skin. H333 May be harmful if inhaled. H303 May be harmful if swallowed. H402 Harmful to aquatic life.
Precautionary Statement(s):	
Prevention:	P264 Wash thoroughly after handling. P273 Avoid release into the environment.
Response:	None.
Storage:	None.
Disposal:	None.
System of Classification Used:	Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).



Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Alcohol (C8 – 10) ethoxylated propoxylated	68603–25–8	10 – 30

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:

Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin:

Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.

Ingestion:

DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

Most Important Symptoms:

N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:

N/A



Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Alcohol (C8 – 10) ethoxylated propoxylated	N/E	N/E

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes:

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.008 @ 20°C
pH:	6.1 @ 20°C, 100.0%
Freezing Point:	36°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	212°F
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	As Water
Molecular Weight:	N/D
Viscosity:	N/A
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	8.41 LB/GA



Vapor Pressure:	As Water
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong bases, Strong oxidizers.

Hazardous Decomposition Products: Oxides of carbon.

Possibility of Hazardous Reactions: None known.

Reactivity: N/D

Conditions To Avoid: N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
N/D	N/D	N/D	N/D	N/D

Carcinogenicity Category

Component	Source	Code	Brief Description
Alcohol (C8 – 10) ethoxylated propoxylated	N/E	N/E	N/E

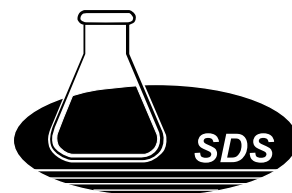
Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D



Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	32 mg/l
	7d	NOEC	10 mg/l
	7d	LOEC	20 mg/l
	7d	IC25	14 mg/l
Rainbow Trout	96h	LC50	37 mg/l
Ceriodaphnia dubia	48h	LC50	61 mg/l
	7d	NOEC	15 mg/l
	7d	LOEC	30 mg/l
	7d	IC25	20 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D



Comments: NOEC effect = Reproduction

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
Not a RCRA-regulated hazardous waste when disposed in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
SCT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDL):

All ingredients listed.
All ingredients listed.



Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Alcohol (C8 – 10) ethoxylated propoxylated	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Alcohol (C8 – 10) ethoxylated propoxylated	None.

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)

Controlled Product Regulations (CPR): 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.



Compliance Information

NSF:	N/A
Food Regulations:	USDA: Product is approved by the USDA for use where the treated water may not contact edible products.
KOSHER:	This product is certified by the Orthodox Union as Kosher for Passover and year-round use. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Fontana, CA.
FIFRA:	N/A
Other:	None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	1
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit



Abbreviation	Definition
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 20, 2017

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CL457
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 7, 2017
Revision Date:	March 7, 2017
Revision Number:	17030701AN

Section 2. Hazard(s) Identification



Signal Word: **DANGER**

GHS Classification(s): Oxidizing Liquids – Category 1
Acute Toxicity Oral – Category 4
Acute Toxicity Inhalation – Category 5
Skin corrosion/irritation – Category 1a
Eye damage/irritation – Category 1
Hazardous to the aquatic environment Acute – Category 3

Hazard Statement(s): H271 May cause fire or explosion; strong oxidizer.
H302 Harmful if swallowed.
H333 May be harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H402 Harmful to aquatic life.

Precautionary Statement(s):

Prevention: P220 Keep away from clothing and other combustible materials.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.



Storage: None.

Disposal: None.

System of Classification Used: Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified: None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Hydrogen peroxide	7722-84-1	1 – 7

Comments If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

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.

Skin: Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.

Most Important Symptoms: N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary: N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Product is an oxidizer. It may react with organics or reducing agents to produce an explosion or fire.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
------------------	--

Storage:

Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Store away from combustible materials.
Store in vented containers.
Avoid contamination from any source, including metals, dust, and organic. Keep drum upright. Do not roll. Store inside only.
Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Hydrogen peroxide	ACGIH TLV	1.4 mg/m ³ TWA
	OSHA PEL	1.4 mg/m ³ TWA

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection**Eyes:**

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Pink, Hazy
Specific Gravity:	1.034 @ 20°C
pH:	6.1 @ 20°C, 100.0%
Freezing Point:	30°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	212°F
Solubility in Water:	Complete
Evaporation Rate:	Similar to water
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	N/A
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	8.62 LB/GA
Vapor Pressure:	N/D
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Reducing agents, Metals or metal oxides, Organic compounds, Alkali sensitive metals or alloys.
Hazardous Decomposition Products:	Oxygen gas.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Hydrogen peroxide	Oral	LD50	500 MG/KG	Rat

Carcinogenicity Category

Component	Source	Code	Brief Description
Hydrogen peroxide	ACGIH	TLV-A3	Confirmed animal carcinogen with unknown relevance to humans
	IARC	IARC-3	Unclassifiable as to carcinogenicity in humans
	MAK	MAK-4	Carcinogenic potential for which genotoxicity plays no role-no significant human risk

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D



Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	16.4 mg/l
Daphnia magna	48h	EC50	2.4 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
Not a RCRA-regulated hazardous waste when disposed in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	Yes
Reactive Hazard:	Yes
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Hydrogen peroxide	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Hydrogen peroxide	MA, MN, NJ, NY, PA, WA



International Regulations

Canada

WHMIS Classification: C (Oxidizing Material)

Controlled Product Regulations (CPR): 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.

Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	1
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.



Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 7, 2017

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

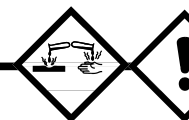


SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	Chemical Treatment CL2150
Product Use:	Cooling Water Microbiocide and Paper Slimicide
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 20, 2017
Revision Date:	March 20, 2017
Revision Number:	17032001AN

Section 2. Hazard(s) Identification



Signal Word: DANGER

GHS Classification(s): Skin corrosion/irritation – Category 1b
Eye damage/irritation – Category 1
Acute Toxicity Dermal – Category 4
Acute Toxicity Inhalation – Category 4
Acute Toxicity Oral – Category 4
Hazardous to the aquatic environment Acute – Category 3

Hazard Statement(s): H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H402 Harmful to aquatic life.

Precautionary Statement(s):

Prevention: P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release into the environment.

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P301 + 330 + 331 IF SWALLOWED: Rinse mouth.
Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair):
Remove/take off immediately all contaminated clothing.
Rinse skin with water/shower
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
5-chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	1.11
2-methyl-4-isothiazolin-3-one	2682-20-4	0.39

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

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.



Skin:	Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container, label or MSDS with you when calling a poison control center or doctor, or when going for treatment.

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Use water spray to keep containers cool.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.

**Other Statements:**

If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

Section 7. Handling and Storage

Handling:

Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage:

Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store in corrosive resistant container with a resistant inliner. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
5-chloro-2-methyl-4-isothiazolin-3-one	N/E	N/E
2-methyl-4-isothiazolin-3-one	N/E	N/E

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection**Eyes:**

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Green, Clear
Specific Gravity:	1.025 @ 20°C
pH:	3.6 @ 20°C, 100.0%
Freezing Point:	45°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	N/D
Solubility in Water:	Complete
Evaporation Rate:	<1
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	N/D
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	8.55 LB/GA
Vapor Pressure:	N/D
% VOC:	<0.1
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong oxidizers, Strong bases.
Hazardous Decomposition Products:	Oxides of nitrogen, Oxides of sulfur, Oxides of carbon, Halogenated compounds.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Chemical Treatment CL2150	Oral	LD50	3810 MG/KG	Rat
	Dermal	LD50	>5000 MG/KG	Rabbit
	Inhalation	LD50	13.7 MG/L	Rat

Carcinogenicity Category

Component	Source	Code	Brief Description
5-chloro-2-methyl-4-isothiazolin-3-one	N/E	N/E	N/E
2-methyl-4-isothiazolin-3-one	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D



Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Daphnia magna	48h	LC50	10.7 mg/l
Bluegill Sunfish	96h	LC50	18.6 mg/l
Ceriodaphnia dubia	48h	EC50	10.7 mg/l
Rainbow Trout	96h	LC50	12.6 mg/l
Sheepshead Minnow	96h	LC50	70.7 mg/l
Mysid Shrimp	48h	LC50	46.1 mg/l
Daphnia pulex	48h	LC50	17 mg/l
Fathead Minnow	48h	LC50	8.7 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

PESTICIDE DISPOSAL: Pesticide wastes are toxic. 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.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	UN1760	CORROSIVE LIQUIDS, N.O.S.	(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE)	8	PGII
IMDG	UN1760	CORROSIVE LIQUIDS, N.O.S.	(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE)	8	PGII
TDG	UN1760	CORROSIVE LIQUIDS, N.O.S.	(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE)	8	PGII
ICAO	UN1760	CORROSIVE LIQUIDS, N.O.S.	(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE)	8	PGII
SCT	UN1760	CORROSIVE LIQUIDS, N.O.S.	(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE)	8	PGII

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.



Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
5-chloro-2-methyl-4-isothiazolin-3-one	N/A	N/A	N/A
2-methyl-4-isothiazolin-3-one	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
5-chloro-2-methyl-4-isothiazolin-3-one	None.
2-methyl-4-isothiazolin-3-one	None.

International Regulations

Canada

WHMIS Classification: N/A

Controlled Product Regulations (CPR): N/A



Compliance Information

NSF:	N/A
Food Regulations:	FDA: All ingredients in this product are authorized in 21 CFR 176.170 and 21 CFR 176.180.
KOSHER:	This product is certified by the Orthodox Union as Kosher for Passover and year-round use. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Fontana, CA.
FIFRA:	Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA Registration Number: 15300-24.
Other:	PMRA biocide registration NO. 26537.

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	3
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established



Abbreviation	Definition
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 20, 2017

Disclaimer

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SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CL4400
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 20, 2017
Revision Date:	March 20, 2017
Revision Number:	17032001AN

Section 2. Hazard(s) Identification

Signal Word:	None
GHS Classification(s):	Non-Hazardous Substance
Hazard Statement(s):	Non-Hazardous Substance
Precautionary Statement(s):	No significant health risks are expected from exposures under normal conditions of use.
Prevention:	None.
Response:	None.
Storage:	None.
Disposal:	None.
System of Classification Used:	Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hazards Not Otherwise Classified:	None.



Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Components not listed are either non hazardous or in concentration of less than 1%	N/A	N/A

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:	Call a POISON CENTER or doctor/physician if you feel unwell.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Skin:	Call a poison center or doctor/physician if you feel unwell.
Ingestion:	Rinse mouth. Call a poison center or doctor/physician if you feel unwell.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Components not listed are either non hazardous or in concentration of less than 1%	N/E	N/E

Engineering Controls:	Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.
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Personal Protection

Eyes:	Safety glasses are recommended if risk of eye contact.
Skin:	Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.
Respiratory:	If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Light Straw, Clear
Specific Gravity:	1.072 @ 20°C
pH:	6.7 @ 20°C, 100.0%
Freezing Point:	32°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	212°F
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	N/A
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	8.94 LB/GA
Vapor Pressure:	<17.5
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong oxidizers, Strong bases.
Hazardous Decomposition Products:	Oxides of carbon, Oxides of sulfur.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
N/D	N/D	N/D	N/D	N/D

Carcinogenicity Category

Component	Source	Code	Brief Description
Components not listed are either non hazardous or in concentration of less than 1%	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation:	N/D
Eye Contact:	N/D
Skin Contact:	N/D
Ingestion:	N/D

Skin Corrosion/Irritation: N/D



Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	5548 mg/l
Ceriodaphnia dubia	48h	LC50	3415 mg/l
Sheepshead Minnow	96h	LC50	>1000 mg/l
Mysid Shrimp	48h	LC50	>1000 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
Not a RCRA-regulated hazardous waste when disposed in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.



Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Components not listed are either non hazardous or in concentration of less than 1%	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Components not listed are either non hazardous or in concentration of less than 1%	None.

International Regulations

Canada

WHMIS Classification: N/A

**Controlled Product Regulations
(CPR):** N/A



Compliance Information

NSF:	N/A
Food Regulations:	N/A
KOSHER:	This product is certified by the Orthodox Union as Kosher for Passover and year-round use. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Fontana, CA.
FIFRA:	N/A
Other:	None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	0
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit



Abbreviation	Definition
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 20, 2017

Disclaimer

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SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	FlexPro Plus CL5685
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	December 2, 2016
Revision Date:	December 2, 2016
Revision Number:	16120201AN

Section 2. Hazard(s) Identification



Signal Word: **DANGER**

GHS Classification(s):
Skin corrosion/irritation – Category 1b
Eye damage/irritation – Category 1
Acute Toxicity Dermal – Category 4
Acute Toxicity Inhalation – Category 4
Acute Toxicity Oral – Category 4
Corrosive to Metals – Category 1

Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H290 May be corrosive to metals.

Precautionary Statement(s):

Prevention:	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink, or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
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**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P301 + 330 + 331 IF SWALLOWED: Rinse mouth.
Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair):
Remove/take off immediately all contaminated clothing.
Rinse skin with water/shower
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.
P406 Store in a corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Sodium hydroxide	1310-73-2	1 – 5
Chlorotolyltriazole sodium salt	202420-04-0	1 – 5

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
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.
Skin:	Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.



Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802. Reportable Quantity of the product is 1908 Gal.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store in corrosive resistant container with a resistant inliner. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Sodium hydroxide	ACGIH TLV	2 mg/m ³ Ceiling
	OSHA PEL	2 mg/m ³ TWA
Chlorotolyltriazole sodium salt	N/E	N/E

Engineering Controls:	Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.
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Personal Protection

Eyes:	Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.
Skin:	Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.
Respiratory:	If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Brown, Clear
Specific Gravity:	1.257 @ 20°C
pH:	13.2 @ 20°C, 100.0%
Freezing Point:	21.2°F
Flash Point:	N/A
Odor:	Mild
Melting Point:	N/D
Initial Boiling Point and Boiling Range:	N/D
Solubility in Water:	N/D
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/D
Density:	10.48 LB/GA
Vapor Pressure:	N/D
% VOC:	N/D
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong oxidizers, Acids.
Hazardous Decomposition Products:	None known.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sodium hydroxide	Oral	LD50	300 MG/KG	Rat
	Dermal	LD50	1350 MG/KG	Rabbit
FlexPro Plus CL5685	N/D	N/D	N/D	N/D

Carcinogenicity Category

Component	Source	Code	Brief Description
Sodium hydroxide	N/E	N/E	N/E
Chlorotolyltriazole sodium salt	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation:	N/D
Eye Contact:	N/D
Skin Contact:	N/D
Ingestion:	N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Ceriodaphnia dubia	48h	LC50	1193 mg/l
Fathead Minnow	96h	LC50	583 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SODIUM HYDROXIDE AND HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)	8	PGII
Over 1908 GA	UN1760	RQ CORROSIVE LIQUIDS, N.O.S.	(SODIUM HYDROXIDE AND HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)	8	PGII
TDG	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SODIUM HYDROXIDE AND HALOGENATED AROMATIC HETEROCYCLE SODIUM SALT)	8	PGII

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDL):

All ingredients listed.
All ingredients listed.



Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Sodium hydroxide	N/A	N/A	1000
Chlorotolyltriazole sodium salt	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Sodium hydroxide	MA, MN, NY, PA, WA
Chlorotolyltriazole sodium salt	None.

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): 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.



Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	3
Flammability:	1
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown



Prepared by:

Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date:

December 2, 2016

Disclaimer

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SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	FlexPro CL5737
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 7, 2017
Revision Date:	March 7, 2017
Revision Number:	17030701AN

Section 2. Hazard(s) Identification



Signal Word: **DANGER**

GHS Classification(s): Skin corrosion/irritation – Category 1a
Eye damage/irritation – Category 1
Acute Toxicity Dermal – Category 4
Acute Toxicity Oral – Category 4
Acute Toxicity Inhalation – Category 2
Corrosive to Metals – Category 1
Specific Target Organ Toxicity – Repeated Exposure – Category 2

Hazard Statement(s): H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H312 Harmful in contact with skin.
H302 Harmful if swallowed.
H330 Fatal if inhaled.
H290 May be corrosive to metals.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):



Prevention:

P234 Keep only in original container.
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P284 Wear respiratory protection.

Response:

P390 Absorb spillage to prevent material damage.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P310 Immediately call a POISON CENTER/doctor.
P301 + 330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

Storage:

P406 Store in a corrosive resistant container with a resistant inner liner.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Citric acid	77-92-9	1 – 5
Sulfuric acid	7664-93-9	1 – 5

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

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.

Skin:

Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.

Ingestion:

DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.

Most Important Symptoms:

N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:

N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Product may emit toxic gases or fumes under fire conditions. Use water spray to keep containers cool.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802. Reportable Quantity of the product is 3126 Gal.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
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Storage:

Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Protect from heat and sources of ignition.
Do not store or handle in aluminum, steel, copper, or their alloys.
Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Citric acid	N/E	N/E
Sulfuric acid	ACGIH TLV	0.2 ppm TWA
	OSHA PEL	1 mg/m ³ TWA; Aerosol

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection**Eyes:**

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:

Liquid, Dark Straw, Clear

Specific Gravity:

1.087 – 1.100 @ 20°C

pH:

<1.0 @ 20°C, 100.0%

Freezing Point:

32°F

Flash Point:

N/A

Odor:

Mild

Melting Point:

N/A



Initial Boiling Point and Boiling Range:	~225°F
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	9.14 LB/GA
Vapor Pressure:	N/D
% VOC:	N/D
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Bases, Strong oxidizers, Alkali sensitive metals or alloys, Amines, Metals or metal oxides, Nitrites.
Hazardous Decomposition Products:	Hydrogen chloride, Chlorine.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sulfuric acid	Oral	LD50	2140 MG/KG	Rat
	Inhalation	LD50	375 MG/L	Rat
FlexPro CL5737	N/D	N/D	N/D	N/D



Carcinogenicity Category

Component	Source	Code	Brief Description
Citric acid	N/E	N/E	N/E
Sulfuric acid	NTP	NTP-K	Known to be a human carcinogen

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Ceriodaphnia dubia	48h	LC50	2272 mg/l
Fathead Minnow	96h	LC50	>10000 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII
Over 3126 GA	UN1760	RQ CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII
TDG	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII
ICAO	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII
IMDG	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII
ANTT	UN1760	CORROSIVE LIQUIDS, N.O.S.	(SULFURIC ACID AND CITRIC ACID)	8	PGII

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Citric acid	N/A	N/A	N/A
Sulfuric acid	N/A	1000	1000

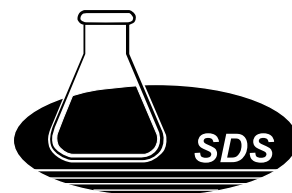
Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Citric acid	None.
Sulfuric acid	MA, MN, NJ, NY, PA, WA



International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): 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.

Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	3
Flammability:	0
Physical Hazard:	1
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 7, 2017

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.



SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	Quadrasperse® CL5898
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	July 23, 2018
Revision Date:	July 23, 2018
Revision Number:	18072301AN

Section 2. Hazard(s) Identification



Signal Word:	WARNING
GHS Classification(s):	Eye damage/irritation – Category 2b Acute Toxicity Dermal – Category 4 Acute Toxicity Inhalation – Category 4 Acute Toxicity Oral – Category 4
Hazard Statement(s):	H320 Causes eye irritation. H312 Harmful in contact with skin. H332 Harmful if inhaled. H302 Harmful if swallowed.

Precautionary Statement(s):

Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink, or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
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**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P337 + P313 If eye irritation persists, get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

None.

Disposal:

P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
2-Phosphono-1,2,4-butane tricarboxylic acid	37971-36-1	3 – 7
Benzotriazole, sodium salt	15217-42-2	1 – 5

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Skin:	Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Use water spray to keep containers cool.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
2-Phosphono-1,2,4-butane tricarboxylic acid	N/E	N/E
Benzotriazole, sodium salt	N/E	N/E

Engineering Controls:	Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.
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Personal Protection

Eyes:	Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.
Skin:	Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.
Respiratory:	If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Straw, Clear
Specific Gravity:	1.077 – 1.090 @ 20°C
pH:	3.8 @ 20°C, 100.0%
Freezing Point:	41°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	N/D
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	9.07 LB/GA
Vapor Pressure:	N/D
% VOC:	N/D
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong oxidizers, Strong bases.
Hazardous Decomposition Products:	Oxides of phosphorus, Oxides of sulfur.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
2-Phosphono-1,2,4-butane tricarboxylic acid	Oral	LD50	>6500 MG/KG	Rat

Carcinogenicity Category

Component	Source	Code	Brief Description
2-Phosphono-1,2,4-butane tricarboxylic acid	N/E	N/E	N/E
Benzotriazole, sodium salt	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation:	N/D
Eye Contact:	N/D
Skin Contact:	N/D
Ingestion:	N/D

Skin Corrosion/Irritation: N/D



Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	2739 mg/l
Ceriodaphnia dubia	48h	LC50	1786 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.



Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

**Sections 311/312 Hazard
Classes**

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No



Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
2-Phosphono-1,2,4-butane tricarboxylic acid	N/A	N/A	N/A
Benzotriazole, sodium salt	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
2-Phosphono-1,2,4-butane tricarboxylic acid	None.
Benzotriazole, sodium salt	None.

Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product is certified by the Orthodox Union as kosher pareve.
Only when prepared by the following ChemTreat facilities:
Ashland, VA; Eldridge, IA; Nederland, TX.

Halal: This product has not been evaluated for Halal approval.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	2
Flammability:	0
Physical Hazard:	0
PPE:	X

**Notes:**

The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by:

Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date:

July 23, 2018

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.



SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CT708
Product Use:	Potable Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 7, 2017
Revision Date:	March 7, 2017
Revision Number:	17030701AN

Section 2. Hazard(s) Identification

Signal Word:	WARNING
GHS Classification(s):	Eye damage/irritation – Category 2b
Hazard Statement(s):	H320 Causes eye irritation.
Precautionary Statement(s):	
Prevention:	P264 Wash thoroughly after handling.
Response:	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage:	None.
Disposal:	None.
System of Classification Used:	Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hazards Not Otherwise Classified:	None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Sodium hexametaphosphate	10124-56-8	15 – 40

Comments If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation: Call a POISON CENTER or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Call a poison center or doctor/physician if you feel unwell.

Ingestion: Rinse mouth. Call a poison center or doctor/physician if you feel unwell.

Most Important Symptoms: N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary: N/A

Section 5. Fire Fighting Measures

Flammability of the Product: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable to surrounding fire.

Specific Hazards Arising from the Chemical: Use water spray to keep containers cool.

Protective Equipment: If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.



Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Avoid generating dust. Contain and/or absorb spill with inert material then place in suitable container.
Other Statements:	None.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Sodium hexametaphosphate	N/E	N/E

Engineering Controls:	Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.
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Personal Protection

Eyes:	Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.
Skin:	Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.
Respiratory:	If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.282 @ 20°C
pH:	5.7 @ 20°C, 100.0%
Freezing Point:	34°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	212°F
Solubility in Water:	Complete
Evaporation Rate:	<1
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	N/A
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	10.69 LB/GA
Vapor Pressure:	<17.5
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Food sugars. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products.
Hazardous Decomposition Products:	Oxides of sodium, Oxides of phosphorus.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sodium hexametaphosphate	Oral	LD50	3053 MG/KG	Rat
	Oral	LD50	4320 MG/KG	Mouse
	Dermal	LD50	>7940 MG/KG	Rabbit

Carcinogenicity Category

Component	Source	Code	Brief Description
Sodium hexametaphosphate	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation:	N/D
Eye Contact:	N/D
Skin Contact:	N/D
Ingestion:	N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Mysid Shrimp	24h	LC50	>10000 mg/l
	48h	LC50	>10000 mg/l
Inland Silverside	24h	LC50	>10000 mg/l
	96h	LC50	>10000 mg/l
Ceriodaphnia dubia	48h	LC50	908 mg/l
Fathead Minnow	96h	LC50	824 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.



Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDSL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

**Sections 311/312 Hazard
Classes**

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes



Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Sodium hexametaphosphate	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Sodium hexametaphosphate	MA, NY, PA

International Regulations

Canada

WHMIS Classification: N/A

Controlled Product Regulations (CPR): N/A

Compliance Information

NSF: Certified to NSF/ANSI Standard 60
Maximum use rate for potable water – 37 mg/L
This product ships as NSF from:
Eldridge, IA
Nederland, TX
Ashland, VA
Facility #32 USA

Food Regulations: FDA: Generally Recognized as Safe (GRAS) by the
FDA at 21 CFR 182.6760

KOSHER: This product is certified by the Orthodox Union as Kosher
for Passover and year-round use.
Only when prepared by the following ChemTreat facilities:
Ashland, VA; Eldridge, IA; Nederland, TX; Vernon, CA;
Fontana, CA.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	1
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes:

The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 7, 2017



Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CT709
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424-9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648-4579
Date of SDS:	March 20, 2017
Revision Date:	March 20, 2017
Revision Number:	17032001AN

Section 2. Hazard(s) Identification



Signal Word: **WARNING**

GHS Classification(s): Corrosive to Metals – Category 1
Skin corrosion/irritation – Category 2
Eye damage/irritation – Category 2a

Hazard Statement(s): H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary Statement(s):

Prevention: P234 Keep only in original container.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation develops or persists, get medical advice/attention.
P337 + P313 If eye irritation persists, get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P390 Absorb spillage to prevent material damage.

Storage:

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

Disposal:

None.

System of Classification Used:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified:

None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
Tetrapotassium pyrophosphate	7320-34-5	40 – 70

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation:

Call a POISON CENTER or doctor/physician if you feel unwell.

Eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin:

Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs, seek medical advice/attention.



Ingestion:	Rinse mouth. Call a poison center or doctor/physician if you feel unwell.
Most Important Symptoms:	N/D
Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.



Section 7. Handling and Storage

Handling:

Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage:

Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Store above Freeze Point.
Store in corrosive resistant container with a resistant inliner.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Tetrapotassium pyrophosphate	N/E	N/E

Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes:

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin:

Maintain quick-drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory:

If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.727 @ 20°C
pH:	11.4 @ 20°C, 100.0%
Freezing Point:	<-13°F
Flash Point:	N/D
Odor:	Odorless
Melting Point:	N/A
Initial Boiling Point and Boiling Range:	N/D
Solubility in Water:	Complete
Evaporation Rate:	Similar to water
Vapor Density:	Similar to water
Molecular Weight:	N/D
Viscosity:	N/A
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	14.40 LB/GA
Vapor Pressure:	Similar to water
% VOC:	0
Odor Threshold	N/D
n-octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability:	Stable at normal temperatures and pressures.
Incompatibility with Various Substances:	Strong acids.
Hazardous Decomposition Products:	Oxides of potassium, Oxides of phosphorus.
Possibility of Hazardous Reactions:	None known.
Reactivity:	N/D
Conditions To Avoid:	N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Tetrapotassium pyrophosphate	Oral	LD50	2980 MG/KG	Rat
	Dermal	LD50	>7940 MG/KG	Rabbit

Carcinogenicity Category

Component	Source	Code	Brief Description
Tetrapotassium pyrophosphate	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Mysid Shrimp	48h	LC50	>1000 mg/l
Sheepshead Minnow	96h	LC50	>1000 mg/l
Ceriodaphnia dubia	48h	LC50	170.8 mg/l
Inland Silverside	96h	LC50	1932 mg/l
Fathead Minnow	96h	LC50	637.3 mg/l
	7d	NOEC	350 mg/l
	7d	LOEC	700 mg/l
	7d	IC25	397 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
Not a RCRA-regulated hazardous waste when disposed in the original product form.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	(TETRAPOTASSIUM PYROPHOSPHATE)	8	PGIII
IMDG	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	(TETRAPOTASSIUM PYROPHOSPHATE)	8	PGIII
TDG	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	(TETRAPOTASSIUM PYROPHOSPHATE)	8	PGIII
ICAO	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	(TETRAPOTASSIUM PYROPHOSPHATE)	8	PGIII



Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
ANTT	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	(TETRAPOTASSIUM PYROPHOSPHATE)	8	PGIII

Note: When shipped in stainless steel bulk containers, this material is not classified as a D.O.T. regulated material, according to 49 CFR 173.154 (d)(1).

Section 15. Regulatory Information

Inventory Status

United States (TSCA):
Canada (DSL/NDL):

All ingredients listed.
All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Tetrapotassium pyrophosphate	N/A	N/A	N/A

Comments: None.



State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Tetrapotassium pyrophosphate	None.

International Regulations

Canada

WHMIS Classification: E (Corrosive Material)
D2B (Toxic Material)

Controlled Product Regulations (CPR): 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.

Compliance Information

NSF: Certified to NSF/ANSI Standard 60
Maximum use rate for potable water – 29 mg/L
This product ships as NSF from:
Eldridge, IA
Nederland, TX
Ashland, VA

Food Regulations: FDA: Generally Recognized as Safe (GRAS) by the FDA at 21 CFR 182.6789.

KOSHER: This product is certified by the Orthodox Union as Kosher for Passover and year-round use.
Only when prepared by the following ChemTreat facilities:
Ashland, VA; Eldridge, IA; Nederland, TX.

FIFRA: N/A

Other: None

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	1
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes:

The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.

The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

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N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown


Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 20, 2017



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SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
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% TECHNICAL

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.

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

Precautionary Statements:

Prevention

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.
P363 Wash contaminated clothing before reuse.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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		
SULFURIC ACID 93% TECHNICAL		
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.

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)	Issuing date: 05/09/2016	

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)	Issuing date: 05/09/2016	

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:

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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.
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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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)	Issuing date: 05/09/2016	

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)	Issuing date: 05/09/2016	

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	

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

<u>14.3 Transport hazard class</u>	8
<u>14.4 Packing group</u>	
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

<u>14.5 Environmental hazards</u>	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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)	Issuing date: 05/09/2016	

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

SAFETY DATA SHEET		
SULFURIC ACID 93% TECHNICAL		
Revision: 2. US (EN)		Issuing date: 05/09/2016

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
 : 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.