



SAFETY DATA SHEET BELLACIDE 301

1. IDENTIFICATION

Product Name	BELLACIDE 301
Chemical Name	Contains tributyltetradecylphosphonium chloride.
Product No.	101400, 101452
Identification No.	3082
Identified uses	Biocides for water treatment.
Supplier	BWA Water Additives US LLC 1979 Lakeside Parkway Suite 925, Tucker, GA30084 USA T: +1 800 600 4523 T: +1 678 802 3050 E: msds@wateradditives.com
Emergency Telephone	Chemtrec Phone: 1-800-424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW

EPA REGISTRATION No. 83451-22 EPA SIGNAL WORD: DANGER. EPA FIFRA Labelling information in Section 15 (PRN 2012-1)

Appearance	Clear liquid.
Color	Yellow to amber
Odor	Slight odor.
GHS Pictogram	



Signal Word Warning

Hazard Statements

H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P501	Dispose of contents/container in accordance with national regulations.

GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H332;Skin Sens. 1 - H317
Environment	Aquatic Acute 1 - H400;Aquatic Chronic 1 - H410

BELLACIDE 301**WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS****WHMIS Label**

Materials Causing Other
Toxic Effects.

Controlled Product Classification

Canadian WHMIS Classification This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information. D2B

Inhalation

Harmful by inhalation.

Ingestion

May cause discomfort if swallowed.

Skin Contact

Non Irritant. May cause sensitization by skin contact.

Eye Contact

Irritation, burning, lachrymation, blurred vision after liquid splash.

Route Of Entry

Inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]	2.22%
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CAS No.: 31512-74-0

EC No.:

GHS Classification

Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

SODIUM LAURIMINODIPROPIONATE	1-5%
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CAS No.: 14960-06-6

EC No.: 239-032-7

GHS Classification

Eye Irrit. 2 - H319

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	2.78%
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CAS No.: 81741-28-8

EC No.: 279-808-2

GHS Classification

Acute Tox. 4 - H302; Acute Tox. 2 - H330; Skin Corr. 1B - H314; Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

Composition Comments

Aqueous solution containing tributyltetradecylphosphonium chloride

4. FIRST-AID MEASURES**Description of first aid measures****Inhalation**

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. For breathing difficulties oxygen may be necessary. Get medical attention.

BELLACIDE 301

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention immediately!

Skin Contact

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Eye Contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

Most important symptoms and effects, both acute and delayed

Inhalation

Congestion of the lungs may occur producing severe shortness of breath.

Ingestion

May cause chemical burns in mouth and throat. Nausea, vomiting.

Skin Contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Eye Contact

May cause blurred vision and serious eye damage.

Indication of any immediate medical attention and special treatment needed

Notes To The Physician

Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Auto Ignition Temperature (°C)

Not available.

Flammability Limit - Lower(%)

Not available.

Flammability Limit - Upper(%)

Not available.

Flash point (°C)

Not available.

Extinguishing Media

This product is not flammable. Use: Water spray, fog or mist. Foam, carbon dioxide or dry powder.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted. This material will not burn until the water has evaporated. Residue can burn.

Specific Hazards

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Phosphorus. Chlorine.

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

Protective Equipment For Fire-Fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire. Leave danger zone immediately.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Follow precautions for safe handling described in this material safety data sheet. For personal protection, see section 8.

Environmental Precautions

Avoid release to the environment. To prevent release, place container with damaged side up.

Spill Clean Up Methods

Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Product is toxic to aquatic organisms. Minimise/prevent product from entering drains or water courses

Reference to other sections

For waste disposal, see section 13.

BELLACIDE 301

7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact. Avoid forming spray/aerosol mists. Observe good chemical hygiene practices.

Storage

Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperature below 50°C. Do not store for extended periods below freezing point or in direct sunlight. IF FROZEN: once fully thawed, agitate container vigorously to ensure the product is homogeneous. Keep separate from food, feedstuffs, fertilizers and other sensitive material.

Storage Class

Miscellaneous hazardous material storage.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient Comments

No exposure limits noted for ingredient(s).

Protective Equipment



Process Conditions

Provide eyewash, quick drench.

Engineering Measures

Provide sufficient ventilation during operations which cause vapor formation.

Respiratory Equipment

If exposure to spray, mist or vapours is possible wear respirator face mask with appropriate cartridge.

A respiratory protection programme that meets OSHA 1910.134 and ANZI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use.

Hand Protection

Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC. Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Eye Protection

Wear approved safety goggles. Use face shield in case of splash risk.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene Measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

Skin Protection

Wear apron or protective clothing in case of contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid.
Color	Yellow to amber
Odor	Slight odor.
Solubility	Miscible with water
Initial boiling point and boiling range (°C)	Not available.
Melting point (°C)	Not available.
Relative density	0.90 - 1.10 20°C
Vapor density (air=1)	Not available.

BELLACIDE 301

Vapor pressure

Not available.

Evaporation rate

Not available.

pH-Value, Conc. Solution 6.0 - 7.0**Viscosity** 1.40 - 1.60 cSt 20°C**Decomposition temperature (°C)**

Not available.

Odour Threshold, Lower

Not available.

Odour Threshold, Upper

Not available.

Flash point (°C)

Not available.

Auto Ignition Temperature (°C)

Not available.

Flammability Limit - Lower(%)

Not available.

Flammability Limit - Upper(%)

Not available.

Partition Coefficient**(N-Octanol/Water)**

Not available.

Explosive properties

Scientifically unjustified.

Oxidising properties

Does not meet the criteria for oxidising.

Not available.

10. STABILITY AND REACTIVITY

Reactivity

No specific reactivity hazards associated with this product.

Stability

Stable under normal temperature conditions and recommended use.

Hazardous Polymerisation

Will not polymerise.

Conditions To Avoid

Avoid excessive heat for prolonged periods of time.

Materials To Avoid

Strong acids. Strong alkalis.

Hazardous Decomposition ProductsCarbon dioxide (CO₂). Carbon monoxide (CO). Chlorine. Oxides of: Phosphorus.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:**Acute Toxicity (Oral LD50)**

> 2000 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rat

Acute Toxicity (Inhalation LC50)

1.55 mg/l (dust/mist) Rat

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

BELLACIDE 301

Partition coefficient

Not available.

Mobility:

The product is miscible with water. May spread in water systems.

Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

Other adverse effects

Not available.

13. DISPOSAL CONSIDERATIONS

Waste Management

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Disposal Methods

Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

Liquid material should be incinerated. Material absorbed onto sand or earth should be disposed of as solid waste in accordance with local regulations. Empty packaging may contain product residues and due consideration should be given prior to disposal.

14. TRANSPORT INFORMATION

UN No. (DOT/TDG)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
DOT Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Contains tributyltetradecylphosphonium chloride)
TDG Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Contains tributyltetradecylphosphonium chloride)
DOT Hazard Class	9
DOT Hazard Label	Class 9
TDG Class	9
IMDG Class	9
ICAO Class	9

Transport Labels

DOT Pack Group	III
TDG Pack Group	III
IMDG Pack Group	III
Air Pack Group	III

Environmentally Hazardous Substance/Marine Pollutant

EMS

F-A, S-B

BELLACIDE 301

Markings

MARINE POLLUTANT

Classification Code (Adr) M6

15. REGULATORY INFORMATION

Regulatory Status (US)

This Product is Hazardous under the OSHA Hazard Communication Standard. SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

FDA – Essential Chemical

None of the ingredients are listed.

FDA – Precursor Chemical

None of the ingredients are listed.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

Massachusetts "Right To Know" List

None of the ingredients are listed.

Rhode Island "Right To Know" List

None of the ingredients are listed.

Minnesota "Right To Know" List

None of the ingredients are listed.

New Jersey "Right To Know" List

None of the ingredients are listed.

Pennsylvania "Right To Know" List

None of the ingredients are listed.

Fifra Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER.

Corrosive.

Causes irreversible eye damage.

Harmful if swallowed or absorbed through the skin or inhaled.

International Inventories

EU - EINECS/ELINCS

All ingredients are listed or exempt.

BELLACIDE 301**Canada – DSL/NDSL**

All ingredients are listed or exempt.

US - TSCA

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE

WATER

Japan – MITI

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

WATER

Korea - KECI

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE

WATER

China - IECSC

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE

WATER

Phillippines – PICCS

The following ingredients are listed.

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE

WATER

New Zealand - NZIOC

The following ingredients are listed.

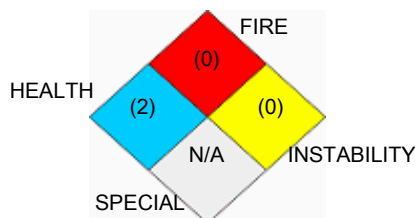
Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE

WATER

16. OTHER INFORMATION**HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

HEALTH	2
FLAMMABILITY	0
PHYSICAL	0
PERSONAL PROTECTION	F

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**General Information**

For advice on chemical emergencies, spillages, fires or first aid in relation to this product please contact the relevant emergency number below :

EU/English Speakers - +44 (0) 1235 239 670 (NCEC)

Arabic Speakers - +44 (0) 1235 239 671

Asia/Pacific countries - +65 3158 1074

For emergencies within China - +86 10 5100 3039

BELLACIDE 301

Revision Comments

Conversion to GHS (HCS 2012 / WHMIS 2015)

Issued By	BWA Water Additives Regulatory Group, +44(0)1618646699
Revision Date	3rd March, 2015
Revision	3
Sds No.	11375

Disclaimer

For safety reasons it is IMPERATIVE that customers:-

1. Ensure that all those within their control who use the products are supplied with all relevant information contained within the Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions and warnings contained therein.
2. Consult BWA Water Additives before using or supplying the product for any other applications. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

MATERIAL SAFETY DATA SHEET

Product Trade Name: **CLA-STA XP ADDITIVE**

Revision Date: 06-Nov-2014

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: CLA-STA XP ADDITIVE

Synonyms: None

Chemical Family: Blend

Application: Clay Stabilizer

Manufacturer/Supplier Halliburton Energy Services
P.O. Box 1431
Duncan, Oklahoma 73536-0431
Emergency Telephone: (281) 575-5000

Prepared By Chemical Compliance
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	30 - 60%	Not applicable	Not applicable

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory irritation. May be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin Wash with soap and water. Get medical attention if irritation persists.

Eyes In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Ingestion Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	Not Determined Min: > 200
Flash Point/Range (C):	Not Determined Min: > 93
Flash Point Method:	PMCC
Autoignition Temperature (F):	Not Determined
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined

Fire Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Special Exposure Hazards Product is not expected to burn unless all the water is boiled away. Decomposition in fire may produce toxic gases.

Special Protective Equipment for Fire-Fighters Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

NFPA Ratings: Health 2, Flammability 1, Reactivity 0
HMS Ratings: Health 2, Flammability 1, Reactivity 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment.

Environmental Precautionary Measures Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

Storage Information Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Respiratory Protection Organic vapor respirator with a dust/mist filter. (A2P2/P3)

Hand Protection Impervious rubber gloves.

Skin Protection Rubber apron.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
CLA-STA XP ADDITIVE
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Color:	Clear amber
Odor:	Amine
pH:	4-8
Specific Gravity @ 20 C (Water=1):	1.13
Density @ 20 C (lbs./gallon):	9.41
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (F):	Not Determined
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Soluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	40-55
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined

10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	None anticipated
Incompatibility (Materials to Avoid)	Strong oxidizers.
Hazardous Decomposition Products	Oxides of nitrogen. Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure

Acute Toxicity

Inhalation	May cause respiratory irritation.
Eye Contact	May cause severe eye irritation.
Skin Contact	May cause skin irritation.
Ingestion	Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	> 2000 mg/kg (Rat)	No data available	No data available
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12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Ecotoxicity Product

Acute Fish Toxicity:	Not determined
Acute Crustaceans Toxicity:	TLM96: 300 ppm (Mysidopsis Bahía)
Acute Algae Toxicity:	Not determined

Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	No information available	No information available	No information available	EC50 (48h) 13 mg/L (Daphnia magna) NOEC (48h) 5 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	(5% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	No information available

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available.

Substances	PBT and vPvB assessment
Polyepichlorohydrin, trimethyl amine quaternized	No data available

12.6. Other adverse effects

13. DISPOSAL CONSIDERATIONS

Disposal Method Disposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION

US DOT

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable

US DOT Bulk

DOT (Bulk) Not Applicable

Canadian TDG u10

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IMDG/IMO

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IATA/ICAO

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable
Special Precautions for User: None

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory All components listed on inventory or are exempt.

EPA SARA Title III Extremely Hazardous Substances Not applicable

EPA SARA (311,312) Hazard Class Acute Health Hazard

EPA SARA (313) Chemicals This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

EPA CERCLA/Superfund Reportable Spill Quantity Not applicable.

EPA RCRA Hazardous Waste Classification If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

California Proposition 65 All components listed do not apply to the California Proposition 65 Regulation.

MA Right-to-Know Law Does not apply.

NJ Right-to-Know Law Does not apply.

PA Right-to-Know Law Does not apply.

Canadian Regulations

Canadian DSL Inventory All components listed on inventory or are exempt.

WHMIS Hazard Class D2B Toxic Materials

16. OTHER INFORMATION

The following sections have been revised since the last issue of this SDS

Not applicable

Additional information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

*****END OF MSDS*****

Safety Data Sheet

ETHYLENE GLYCOL

Version 1.12

Revision Date: 07/14/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ETHYLENE GLYCOL

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical

Manufacturer or supplier's details

Company : Univar Solutions USA, Inc.
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Specific target organ toxicity
- repeated exposure : Category 2 (Kidney)

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P314 Get medical advice/ attention if you feel unwell.
Disposal:
P501 Dispose of contents/ container to an approved waste dis-

Safety Data Sheet
ETHYLENE GLYCOL

Version 1.12

Revision Date: 07/14/2022

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	Weight percent
107-21-1	Ethylene glycol	90 - 100
111-46-6	Diethylene glycol	0 - 5

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

Synonyms : Ethylene glycol Industrial/Ethylene glycol Meglobal/Glycol/Solv Ethylene glycol,**SECTION 4. FIRST AID MEASURES**

- General advice** : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled** : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact** : Wash off with soap and water.
Wash clothing before reuse.
If skin irritation persists, call a physician.
- In case of eye contact** : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed** : Do not induce vomiting without medical advice.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURESSuitable extinguishing media : Foam
Dry chemical

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	Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides toxic fumes
Further information	: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
107-21-1	Ethylene glycol	C	50 ppm 125 mg/m ³	OSHA P0
		C	100 mg/m ³	ACGIH
		TWA (Vapour)	25 ppm	ACGIH
		STEL (Vapour)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m ³	ACGIH
		C (Vapour)	40 ppm 100 mg/m ³	CAL PEL
111-46-6	Diethylene glycol	TWA	10 mg/m ³	US WEEL

Personal protective equipment

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

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, Colorless

Odour : sweet, slight

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Odour Threshold	: No data available
pH	: 9
Freezing Point (Melting point/freezing point)	: -13 - -11.2 °C (9 - 11.8 °F)
Boiling Point (Boiling point/boiling range)	: 197.4 °C (387.3 °F)
Flash point	: 111 - 116 °C (232 - 241 °F) Method: closed cup
Evaporation rate	: 0.01 (Butyl Acetate = 1)
Flammability (solid, gas)	: No data available
Upper explosion limit	: 22 %(V)
Lower explosion limit	: 1.8 %(V)
Vapour pressure	: < 1 hPa @ 20 - 25 °C (68 - 77 °F)
Relative vapour density	: < 2.14 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	: 1.115 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 1.11 g/cm ³ @ 20 °C (68 °F)
Solubility(ies) Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: -1.36
Auto-ignition temperature	: 398 °C
Thermal decomposition	: No data available
Viscosity Viscosity, dynamic	: 19.83 - 21 mPa.s @ 20 - 25 °C (68 - 77 °F)
Viscosity, kinematic	: 145 mm ² /s @ 25 °C (77 °F)

SECTION 10. STABILITY AND REACTIVITY

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Reactivity	: Stable under recommended storage conditions.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Strong bases Strong oxidizing agents Strong acids Aldehydes Aluminium Plastics Reducing agents Peroxides
Hazardous decomposition products	: Aldehydes Ketones Organic acids Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: 489.08 mg/kg

Components:

107-21-1:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

111-46-6:

Acute oral toxicity : LD50 (Human): Calculated 1,120 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Carcinogenicity

IARC

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

OSHA

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

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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.

STOT - repeated exposure**Components:****107-21-1:**

Target Organs: Kidney

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

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- Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN3082, Environmentally hazardous substances, liquid, n.o.s., (ETHYLENE GLYCOL), 9, III

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

- Special Notes:** : This material is shipped as a Class 9, Packing Group III when each package meets or exceeds the reportable quantity, otherwise it may be shipped as not regulated.

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : : Not controlled.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Ethylene glycol	107-21-1	5000	5000
1,4-Dioxane	123-91-1	100	111234

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

107-21-1 Ethylene glycol

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Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

107-21-1 Ethylene glycol

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

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

107-21-1 Ethylene glycol
111-46-6 Diethylene glycol

Clean Water Act

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

75-07-0 Acetaldehyde

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

75-07-0 Acetaldehyde

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


Massachusetts Right To Know

107-21-1 Ethylene glycol
123-91-1 1,4-Dioxane
75-07-0 Acetaldehyde

Pennsylvania Right To Know

107-21-1 Ethylene glycol
111-46-6 Diethylene glycol
123-91-1 1,4-Dioxane
75-07-0 Acetaldehyde

California Prop 65

 **WARNING:** This product can expose you to chemicals including 1,4-Dioxane, Acetaldehyde, which is/are known to the State of California to cause cancer, and Ethylene glycol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PHIL : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Safety Data Sheet

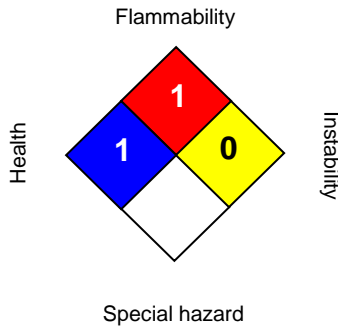
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SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	1*
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

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

Revision Date : 07/14/2022

Legacy SDS: : R0000003

Material number:

16189599, 16186827, 16186690, 16184842, 16184845, 16177859, 16176884, 16174621, 16180818, 16170817, 16168889, 16168166, 16171113, 16172870, 16172917, 16163452, 16158593, 16151256, 16151226, 16145702, 16144747, 16144744, 16165888, 16138739, 16147189, 16137492, 16157140, 16146750, 16157069, 16146636, 16143997, 16136544, 16144139, 16145585, 16145582, 16144545, 16159015, 16158961, 16140174, 16140598, 16142534, 16142076, 16142365, 16134560, 16134526, 16141537, 16142192, 16132249, 16131855, 16129552, 16126165, 16114211, 16112352, 16105892, 16103638, 16086745, 16074387, 16072954, 16062967, 16062968, 16062969, 16062427, 16056075, 16056074, 16055096, 16051591, 16045661, 16041542, 16037771, 16037563, 16034406, 16033659, 16033181, 102641, 16030354, 16013884, 16013560, 16012467, 16012189, 16004457, 775747, 768004, 736726, 736570, 729076, 721550, 714457, 714015, 714153, 666370, 611623, 598441, 594558, 86147, 87305, 559851, 554069, 554044, 554070, 554370

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

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



NORTH Metal and Chemical Co.

1. Company Identification and Product Hazard Overview:

Product Name : NorthQuest EDTA XL; Ethylenediaminetetraacetic Acid, Tetrasodium salt (40% aqueous solution)
Synonyms : Tetrasodium EDTA
Recommended Use : Chelating Agent; sequesters metal ions.
Manufactured for : NORTH Metal and Chemical Company
P. O. Box 1985 609 E. King St.
York, PA USA 17405 York, PA USA 17403
Tel: 717-845-8646 Fax: 717-846-7350
Email: north@nmc-nic.com Website: www.nmc-nic.com

In Case of Emergency: Call CHEMTREC (24H): 1-800-424-9300

2. Hazard Identification:

GHS Classification:

Acute Toxicity, Inhalation (Category 4)

Acute Toxicity, Oral (Category 4)

Skin Irritation (Category 5)

Respiratory Irritation (Category 3)

Eye Damage (Category 1)

Corrosive to metals (Category 1)

Signal Word: DANGER

Pictograms: Corrosion, Acute Toxicity, Health Hazard



Hazard Statements:

H290	: May be corrosive to metals
H313	: May be harmful if in contact with skin
H332	: Harmful if inhaled
H302	: Harmful if swallowed
H305	: May be harmful if swallowed and enters airways
H318	: Causes serious eye damage
H335	: May cause respiratory irritation

Precautionary Statements:

Prevention:

P233	: Keep container tightly closed
P261	: Avoid breathing dust/fume/gas/mist/vapors/spray
P264	: Wash contact area thoroughly after handling
P271	: Use only outdoors or in a well-ventilated area
P280	: Wear protective gloves/protective clothing/eye protection/face protection.
P281	: Use personal protective equipment as required

2. Hazard Identification:

Precautionary Statements:

P303 + P361 + P353	: IF ON SKIN or hair: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P333 + P313	: IF skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338	: IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P330 + P331 + P311	: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON Center or doctor/physician.
P304 + P340	: IF INHALED: Remove person to fresh air and keep in position comfortable for breathing
P332 + P313	: If skin irritation occurs: Get medical advice/attention
P337 + P313	: If eye irritation persists: Get medical advice/attention
P312	: Call a POISON CENTER or doctor/physician if you feel unwell
P403 + P235	: Store in a well-ventilated place. Keep cool.
P501	: Dispose of contents/container in accordance with local/state/federal regulations.

3. Composition/Information on Ingredient:

Chemical Name : NorthQuest EDTA XL

Chemical Family : Chelating Agent

Chemical Formula :

Substance:	CAS Number:	Compo. (%)
Water	7732-18-5	balance
Tetrasodium ethylenediamine tetraacetate	64-02-8	38.0 - 41.0%
Ethylenediaminetriacetic acid, Trisodium salt (ED3ANa3)	19019-43-3	< 0.3
Sodium hydroxide	1310-73-2	0.1 - 1.9%

4. First Aid Measures:

General Advice:	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Eyes	: Flush skin with running water for at least fifteen minutes. Remove any contact lenses. Get medical aid/attention immediately. Continue to rinse eyes during transport to the hospital.
Skin	: Remove contaminated clothing. Wash skin with plenty of running water and soap. Take victim immediately to the hospital. Consult a physician.
Ingestion	: If the product is swallowed, first rinse mouth. Give small amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in recovery position so the vomit does not enter lungs.
Inhalation	: If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Do not give mouth to mouth resuscitation. Get medical attention/consult a physician immediately.
Note to Physician	: Treat symptomatically.

PPE for first responders : Gloves and safety goggles are highly recommended.

Indication of immediate medical

Attention needed : Chemical eye burns may require extended irrigation. Obtain a prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach, and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of the symptoms and the clinical condition of the patient.

5. Fire Fighting Measures:

- Flash Point (°C)** : Not applicable
- Flammable Limits** : Not applicable
- Auto ignition Temp.** : Not applicable
- Flammable Class** : Not applicable
- General Hazard** : Evacuate personnel downwind in-order to avoid inhalation of irritating and/or harmful fumes and smoke.
- Extinguishing Media** : Use water fog or spray, dry chemical, foam or carbon dioxide extinguishing agents.
- Special hazards arising from the substance** : Carbon monoxide, Carbon dioxide, metal oxides, and Nitrogen Oxides (NOx)
- Fire Fighting Procedures:** Hazardous decomposition and combustion products such as carbon/nitrogen oxides can be formed if product is burning. Cool exposed containers with water spray to prevent over heating.
- Fire Fighting Equipment:** Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (bunker gear) and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. Evacuate area and fight fire from safe distance or a protected location. Move fire-exposed containers, if allowable without sacrificing the safety of the firefighters. If possible, firefighters should control run-off water to prevent environmental contamination.

6. Accidental Release Measures:

- Protective Gear for Personnel** : Wear respiratory protection. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
- Environmental Precaution** : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up** : Contain spillage. Soak up liquid residue with a suitable absorbent such as non-combustible material. Collect in suitable and properly labeled containers for disposal. Then flush the area with water. CAUTION: The spill area may be slippery.
- Release Notes** : If spill could potentially enter any waterway, including intermittent dry creeks, contact local authorities.

7. Handling and Storage:

- Handling** : Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not Swallow. Wash thoroughly after handling. Use with adequate ventilation Do not eat, drink, or smoke when handling this product.
- Storage** : Store in a cool, dry well-ventilated area. Keep containers closed and up right when not in use. Isolate from incompatible materials such as strong oxidizing agents. Store in PVC, PE, or stainless steel containers. Keep product isolated from incompatible materials/conditions. Avoid contact with aluminum , copper, copper alloys, nickel and zinc.
- Shelf life: Use within 24 months. Retest if stored more than 3 years.
Storage Temperature: Below 85°F/35°C

8. Exposure Controls and Personal Protection:

Exposure Limits

Component	List	Type	Value
Sodium Hydroxide	ACGIH	Ceiling	2 mg/m ³
	OSHA	PEL	2 mg/m ³
	NIOSH	Ceiling	2 mg/m ³

Immediately Dangerous To Life or Health Concentrations (IDLH/NIOSH):

Sodium Hydroxide = 10mg/m³

Engineering Controls : Use appropriate engineering controls to avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Use local exhaust ventilation.

Personal Protective Equipment

: **Eyes and face:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH.

Skin: Avoid direct contact with skin. Wear rubber gloves, apron, boots or whole bodysuit when handling this product. 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 any contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

: **Body Protection:** Complete suit protecting against chemicals; flame retardant anti-static protective clothing. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific work place.

: **Respiratory:** Where risk assessment shows air-purifying respirators are appropriate, use full-face respirator with multi-purpose combination respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH.

Work Hygienic Practices : Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal hygiene practices should always be followed.

Control of Environmental Exposure

: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Chemical and Physical Properties:

Appearance	: Liquid	Vapor Density	: same as water
Odor	: Mild; slight ammonia	Relative Density	: Not available
Odor threshold	: Not available	Solubility	: completely miscible in water
Color	: Colorless to yellow	Specific Gravity	: 1.26 - 1.30
pH	: 11.0 - 11.8 (1% solution)	Partition coefficient (n-octanol/water)	: Log Pow < 0
Melting Point	: Not applicable	Auto Ignition Temp.	: Not available
Freezing Point	: ≤ -18°C	Molecular Weight	: 380.2 g/mol
Boiling Range	: 106°C	Viscosity	: ~ 19 mPas @ 20°C
Flash Point	: None	Decomposition Temp	: >392°F/200°C (solid); : >224.6°F/>107°C (water loss)
Viscosity @ 20 °C	: Not available		
Evaporation Rate	: < 0.8 estimated		
Lower Explosive Limit	: Not applicable		
Upper Explosive Limit	: Not applicable		
Vapor Pressure	: same as water		

10. Stability and Reactivity:

- Stability** : The product is stable under recommended storage conditions.
- Reactivity** : No dangerous reaction known under conditions of normal use.
- Possibility of Hazardous Reactions** : Polymerization will not occur
- Hazardous Decomposition Products** : Depends upon temperature, air supply, and the presence of other materials. Decomposition products can include and are not limited to Ammonia, Carbon oxides, Nitrogen Oxides, and water vapor.
- Incompatible Materials** : Avoid contact with Oxidizers. Flammable Hydrogen may be generated from contact with metals such as Aluminum. Avoid contact with aluminum, nickel, zinc, copper, and copper alloys.
- Conditions to Avoid** : Some components of this product can decompose at elevated temperatures.

11. Toxicological Information:

Acute Toxicity Data:

LD50 Ingestion - Rat - 3,030 mg/kg
LD50 Dermal - Rabbit - > 5,000 mg/kg

Tetrasodium EDTA:

LD50 Oral = 1,780 mg/kg

Related product Disodium EDTA

LC50 Inhalation: 4h; 1,000 - 5,000 mg/m³ (maximum attainable concentration)

Skin corrosion/irritation:

Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves). Mist may cause skin irritation. Not classified as corrosive to the skin according to DOT guidelines. Sodium Hydroxide component is corrosive to the skin.

Serious eye damage/eye irritation:

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Sodium Hydroxide component is severely irritating to the eyes.

Respiratory or skin sensitization:

No data available. Sodium Hydroxide component is severely irritating to the respiratory tract.

Chronic Toxicity:

No data available for this product
NOAEL = 500 mg/kg (90-day oral study with Disodium EDTA)
NOAEL ≥ 500 mg/kg (104-week oral study with Trisodium HEDTA)
LOAEC = 30/ mg/m³ (5-day inhalation test with Disodium EDTA)

Carcinogenicity:

The Trisodium salt of EDTA did not cause cancer in laboratory animals.

Developmental Toxicity: EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.

Reproductive Toxicity: No relevant data found

Genetic Toxicology: Most data indicate the EDTA and its salts are not mutagenic. Minimal effects are reported likely due to trace metal deficiencies resulting from chelating by EDTA.

11. Toxicological Information:

Reproductive Toxicity

No data available for the mixture.

EDTA and its sodium salts have been reported, in some studies, to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation. Exposures having no effect on the mother should have no effect on the fetus.

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: NC3500000

Incoordination, Mydriasis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination.

Ecotoxicity:

The following data is available for several related EDTA products.

Fish (bluegill): 96h LC50 > 1,000 mg/L

Fish (zebra fish): 35-day NOEC ≥ 25.7 mg/L

Daphnia magna: 48h EC50 = 140 mg/L; 21-day NOEC = 25 mg/L

Algae: 72h EC50 > 500 mg/L

Sodium Hydroxide: Fish (various species): 96h LC50 = 33 to 189 mg/L

Biodegradability:

Inherently biodegradable - EDTA (acid form) and its salts are not readily biodegradable. Under special conditions like adaptation or slightly alkaline pH, which is realistic under environmental surface water conditions, the biodegradability of EDTA is considerably enhanced, and as such, EDTA is considered ultimately biodegradable.

Bioaccumulative Potential:

Potential is low (BCF 1– 2; Log Pow < 0)

Chemical Fate:

The substance is not expected to enter the atmosphere significantly due to its high water solubility. C.O.D. is approximately 260 mg/g

Mobility in soil:

No adsorption expected onto soil due to ionic structure. The test substance will preferably distribute into the water compartment and not evaporate from the water surface.

13. Disposal Considerations:

Disposal Method

: Dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations. DO NOT DUMP INTO ANY SEWERS OR INTO ANY BODY OF WATER.

For Large Spills

: Contain material and call local authorities for emergency assistance.

Product Disposal

: Dispose of at a supervised incineration facility or an appropriate waste disposal facility according to current applicable local, state and federal laws, regulations and product characteristics at time of disposal.

Empty Container

: Contaminated container should be labeled and disposed in accordance to local, state and federal laws and regulations.

General Comments

: Refer to section 6, accidental release measures for additional information.

14. Transport Information:

Regulatory Information	UN No.	Proper Shipping Name	UN Class	Packing Group	Labels
US DOT	3267	Corrosive Liquids, BASIC, Organic, N.O.S.	8	III	Corrosive Sticker
IMDG	3267	Corrosive Liquids, BASIC, Organic, N.O.S.	8	III	Corrosive Sticker
IATA	3267	Corrosive Liquids, BASIC, Organic, N.O.S.	8	III	Corrosive Sticker

15. Regulatory Information:

U.S. Federal Regulations:

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

SARA 313 Components: 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: Immediate (Acute) Health Hazard

Pennsylvania Right to know Components:	Component	CAS#	Amount
	Sodium Hydroxide	1310-73-2	≥ 1.0 - ≤ 1.7%

New Jersey Right to know Components:	Component	CAS#	Amount
	Sodium Hydroxide	1310-73-2	≥ 1.0 - ≤ 1.7%

California Proposition 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm at levels which would require a warning under the statute.

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

CEPA - Domestic Substances List (DSL): All substances contained in this product are listed on the Canadian Domestic Substances list (DSL) or are not required to be listed.

US Toxic Substances Control Act: All components of this product are listed on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30

Canada - WHMIS: Class D2B (Other Toxic effects); Class E (Corrosive to Metal)

CERCLA: Sodium Hydroxide is listed

16. Other Information:

HMIS and NFPA Rating Scale:

HMIS: Hazardous Materials Identification System

Numeric Scale for Health (Blue), Flammability (Red), and Physical Hazard (Yellow):

HMIS Rating:*

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

RATING	HEALTH	FIRE HAZARD	PHYSICAL HAZARD
0	No significant risk to health	Will not burn	Product stable under ambient temperature and condition.
1	Can cause irritation or minor reversible	Must be preheated to burn	Product can become unstable at high temperatures and pressures.
2	Can cause temporary or residual injury	Ignites when moderately heated	Product can become unstable and cause violent chemical reaction at normal pressures and temperatures
3	Can cause serious injury	Ignition occurs at normal temperature	Product capable of forming explosive mixtures and is capable of detonation in presence
4	Can be lethal from single or repeated exposure.	Extremely flammable	Product is highly explosive and unstable. Exothermic reactions possible with decomposition, polymerization, reaction with water or self reaction

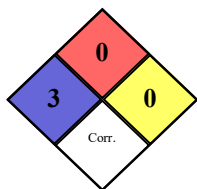
Personal Protection Code C: Gloves + Safety Goggles + Chemical Apron

NFPA: National Fire Protection Association

Numeric Scale for Health (Blue), Fire Hazard (Red), and Reactivity (Yellow):

Special (White)

NFPA Rating:*



RATING	HEALTH	FIRE HAZARD	REACTIVITY
0	Minimal Hazard	Will not burn	Normally Stable
1	Can cause significant irritation	Must be preheated to burn	Unstable at high temperatures
2	Can cause temporary incapacitation or residual injury	Ignites when moderately heated	Normally unstable. Can readily go under violent chemical reaction but do not detonate.
3	Can cause permanent injury.	Ignition occurs at normal temperature	Capable of detonation, or of explosive reaction, but requires a strong ignition source.
4	Can be lethal.	Extremely flammable	May explode at normal temperatures and pressures

16. Other Information:

Potential Health Effects:

Eye Contact: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Skin Contact: Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. May cause severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves). Mist may cause skin irritation. Not classified as corrosive to the skin according to DOT guidelines.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: Vapors are primarily water; single exposure is not likely to be hazardous. Prolonged excessive exposure to mist may cause serious adverse effects, even death. Mist may cause irritation of upper respiratory tract (nose and throat).

Ingestion: Low toxicity if swallowed. Swallowing may result in gastrointestinal irritation or ulceration. Swallowing may result in burns of the mouth and throat.

Aspiration Hazard: Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Effects of Repeated Exposure: For the minor component(s): In animals, effects have been reported on the following organs: Kidney and Urinary tract. Repeated excessive exposure may alter concentrations of metals in the body. In animals, it has been shown to cause deposition of calcium salts in various urinary tract issues.

Birth Defects/Developmental Effects: EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.

Revision Date: January 20, 2022

Reason for Revision: Revised Section 2 - Acute Toxicity, Oral to reflect Category 4

The information contained in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer/supplier, they are not held responsible for loss, injury, and expense arising out of the product's use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS.



Material Safety Data Sheet FE OXCLEAR

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

24 hr. Emergency Contact (CHEMTREC) US Tel: 1- 800 - 424-9300 - Int'l. Tel. 703 - 527 - 3887

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: CLEARWATER INTERNATIONAL L.L.C.
515 POST OAK BLVD., SUITE 600
HOUSTON, TX 77027

MANUFACTURER: CLEARWATER INTERNATIONAL L.L.C.
100 INDUSTRIAL DRIVE
LEETSDALE, PA 15056

PRODUCT NAME: FE OXCLEAR
PRODUCT CODE: WAT6010A
PRODUCT USE/CLASS: SCAVENGER

MSDS REVISION DATE: 05/26/04

PREPARER: MJW

PHONE: 724-318-1050

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	EXPOSURE LIMITS	CAS#	% BY WEIGHT
AMMONIUM BISULFITE	NONE ESTABLISHED	10192-30-0	60-100%

3. HAZARD IDENTIFICATION

EYE: Corrosive, contact with eyes will cause burns and permanent tissue damage.

SKIN: Corrosive, contact with skin may cause burns. If not promptly removed, permanent tissue damage may occur.

INGESTION: This material may be harmful if swallowed. Material is corrosive to mouth, throat, and stomach and may cause burns.

INHALATION: Prolonged inhalation may be harmful. May cause severe irritation and even burns to mucous membranes and lung tissue.

CHRONIC INFORMATION: None known.

PRIMARY ROUTE(S) OF ENTRY: Ingestion, Skin contact, and Eye contact.

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation persists.

SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persist.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

INGESTION: If swallowed, induce vomiting as directed by medical personal. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FLASH POINT: *** °F
(TAGLIABUE CLOSED CUP)

LOWER EXPLOSIVE LIMIT: N.D.
UPPER EXPLOSIVE LIMIT: N.D.

Material Safety Data Sheet

FE OXCLEAR

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: Use media suitable for surrounding materials.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None expected.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear a self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep material into a pile and then place into a chemical waste container. Use caution to avoid creating dusty conditions. (See exposure controls / personal protection section) Spilled material should be disposed of according to applicable regulations.

7. HANDLING AND STORAGE

HANDLING: Handle all chemicals with care. Wear appropriate personnel protective equipment as outlined in section 8. Wash thoroughly after handling.

STORAGE: Keep container closed when not in use. Store in a cool, dry, well ventilated place away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their exposure limits.

RESPIRATORY PROTECTION: No protection needed under normal use and conditions. Use a NIOSH/MSHA approved air purifying respirator with an ammonia/SO² vapor cartridge when airborne concentrations are expected to exceed exposure limits. Protection by air purifying respirators is limited.

SKIN PROTECTION: When contact is likely wear chemical resistant gloves and boots. Where splashing is possible, fully chemical resistant acid suit is required.

EYE PROTECTION: Wear safety glasses with side shields or goggles, and a full face shield

OTHER PROTECTIVE EQUIPMENT: Emergency eye wash stations and deluge showers should be available in the work area.

HYGIENIC PRACTICES: Wash hands before eating. Use only with adequate ventilation. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow

ODOR: Sulfur Dioxide

BOILING POINT (RANGE): 180 °F

FREEZE POINT: N.D. °F

VAPOR DENSITY: N.D.

VAPOR PRESSURE: N/D

PHYSICAL STATE: Liquid

SOLUBILITY IN WATER: Complete

pH (AS IS): N.A.

SPECIFIC GRAVITY: 1.30

10. STABILITY AND REACTIVITY DATA

CONDITIONS TO AVOID: Avoid temperature extremes

INCOMPATIBILITY: Avoid contact with strong acids and heavy metals.

Material Safety Data Sheet

FE OXCLEAR

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon.

HAZARDOUS POLYMERIZATION: Will not occur under normal use and storage conditions.

CHEMICAL STABILITY: This product is stable under normal storage conditions.

11. TOXICOLOGICAL INFORMATION

ORAL: No product information is available.

DERMAL: No product information is available.

INHALATION: No product information is available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: No product information is available.

CHEMICAL FATE INFORMATION: No product information is available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Consult local, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.

RCRA STATUS: D002 –Characteristic of corrosivity.

14. TRANSPORTATION INFORMATION

(NON-BULK SHIPMENTS)

D.O.T. PROPER SHIPPING NAME: BISULFATES, AQUEOUS SOLUTIONS, N.O.S.,

D.O.T. TECHNICAL NAME: AMMONIUM BISULFATES

D.O.T. HAZARD CLASS: 8

HAZARD SUBCLASS: N/A

D.O.T. UN NUMBER: UN 2693

PACKING GROUP: III

RESP. GUIDE PAGE: 154

(BULK SHIPMENTS)

D.O.T. PROPER SHIPPING NAME: BISULFATES, AQUEOUS SOLUTIONS, N.O.S.,

D.O.T. TECHNICAL NAME: AMMONIUM BISULFATES

D.O.T. HAZARD CLASS: 8

HAZARD SUBCLASS: N/A

D.O.T. UN NUMBER: UN 2693

PACKING GROUP: III

RESP. GUIDE PAGE: 154

T.D.G. PROPER SHIPPING NAME: BISULFATES, AQUEOUS SOLUTIONS, N.O.S.,

T.D.G. TECHNICAL NAME: AMMONIUM BISULFATES

T.D.G. HAZARD CLASS: 8

HAZARD SUBCLASS: N/A

T.D.G. UN NUMBER: UN 2693

PACKING GROUP: III

RESP. GUIDE PAGE: 154

IMDG PROPER SHIPPING NAME: BISULFATES, AQUEOUS SOLUTIONS, N.O.S.,

IMDG TECHNICAL NAME: AMMONIUM BISULFATES

IMDG HAZARD CLASS: 8

HAZARD SUBCLASS: N/A

IMDG UN NUMBER: UN 2693

PACKING GROUP: III

EmS No.: F-A, S-B

15. REGULATORY INFORMATION

CERCLA – SARA HAZARD CATEGORY:

SECTION 311/312: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Material Safety Data Sheet

FE OXCLEAR

IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD FIRE HAZARD

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

COMPONENT	CAS#	% BY WEIGHT
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No SARA Section 313 components exist in this product.

TSCA STATUS:

All components of this product are listed on the Toxic Substance Control Act Inventory or are excluded from the listing requirements.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D,2,B

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All components of this product are listed on the Canadian Domestic Substance List (DSL).

16. OTHER INFORMATION

HMIS RATING – HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0 PERSONAL PROTECTIVE RATING: B

LEGEND: N.A. – NOT APPLICABLE, N.E. - NOT ESTABLISHED, N.D. – NOT DETERMINED

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.