



**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

Immediately call a poison center or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a poison center or doctor/physician  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects

**Unknown Acute Toxicity**

8.2% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Tetrasodium EDTA	64-02-8	10-20
Caustic Soda	1310-73-2	<5
Proprietary acid	Proprietary	<5
Proprietary oxide 1	Proprietary	<1
Proprietary oxide 2	Proprietary	<1

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

<b>General Advice</b>	Immediately call a poison center or doctor/physician.
<b>Eye Contact</b>	IF IN EYES: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
<b>Skin Contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor/physician.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

**Most important symptoms and effects**

**Symptoms** Causes severe skin burns and eye damage.

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

**Notes to Physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

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

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Corrosive material.

**Protective equipment and precautions for firefighters**

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

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required.

**Environmental Precautions** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean up in accordance with all applicable regulations.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or spray mist. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep out of the reach of children.

**Incompatible Materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Caustic Soda 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> (vacated) Ceiling: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>
Proprietary acid	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Proprietary oxide 2	TWA: 1 ppm	TWA: 1 ppm STEL: 5 ppm see 29 CFR 1910.1047	IDLH: 800 ppm Ceiling: 5 ppm 10 min/day Ceiling: 9 mg/m <sup>3</sup> 10 min/day TWA: 0.1 ppm less than stated value TWA: 0.18 mg/m <sup>3</sup> less than stated value
Proprietary oxide 1	TWA: 2 ppm	TWA: 100 ppm TWA: 240 mg/m <sup>3</sup> (vacated) TWA: 20 ppm (vacated) TWA: 50 mg/m <sup>3</sup>	IDLH: 400 ppm

### Appropriate engineering controls

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

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

**Eye/Face Protection** Chemical anti-splash safety goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

**Skin and Body Protection** Wear suitable protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	No specific odor
<b>Appearance</b>	Amber liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Amber		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	10-11		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	> 100 °C / >212 °F		
Flash Point	122 °C / 251.6 °F	D93	
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid-Not applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	1.100		
Water Solubility	100%		

<b>Solubility in other solvents</b>	Not determined
<b>Partition Coefficient</b>	Not determined
<b>Auto-ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Kinematic Viscosity</b>	Not determined
<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	Not determined
<b>Oxidizing Properties</b>	Not determined

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to Avoid

Keep out of reach of children.

### Incompatible Materials

None known based on information supplied.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact** Causes severe eye damage.

**Skin Contact** Causes severe skin burns.

**Inhalation** Do not inhale.

**Ingestion** May be harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Tetrasodium EDTA 64-02-8	= 1658 mg/kg ( Rat ) = 10 g/kg ( Rat )	-	-
Caustic Soda 1310-73-2	-	= 1350 mg/kg ( Rabbit )	-
Proprietary acid	= 1530 mg/kg ( Rat )	= 2740 mg/kg ( Rabbit )	> 850 mg/m <sup>3</sup> ( Rat ) 1 h
Quaternary Cocoalkylamine Ethoxylate 61791-10-4	= 580 mg/kg ( Rat )	-	-
Proprietary oxide 2	= 72 mg/kg ( Rat )	-	= 800 ppm ( Rat ) 4 h
Proprietary oxide 1	= 520 mg/kg ( Rat )	= 1244 mg/kg ( Rabbit )	= 0.948 mg/L ( Rat ) 4 h

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Proprietary oxide 2	A2	Group 2A	Known	X
Proprietary oxide 1	A3	Group 2B	Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans (Ethylbenzene)

**NTP (National Toxicology Program)**

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Numerical measures of toxicity**

Not determined

**Unknown Acute Toxicity** 8.2% of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tetrasodium EDTA 64-02-8	1.01: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	41: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 59.8: 96 h <i>Pimephales promelas</i> mg/L LC50 static		610: 24 h <i>Daphnia magna</i> mg/L EC50
Caustic Soda 1310-73-2		45.4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static		
Proprietary acid		3 - 3.5: 96 h <i>Gambusia affinis</i> mg/L LC50		4.6: 12 h <i>Daphnia magna</i> mg/L EC50
Proprietary oxide 2		73 - 96: 96 h <i>Pimephales promelas</i> mg/L LC50		137 - 300: 48 h <i>Daphnia magna</i> mg/L LC50
Proprietary oxide 1	240: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	215: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	EC50 = 3300 mg/L 160 min	350: 48 h <i>Daphnia magna</i> mg/L EC50

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Proprietary oxide 2	-0.3
Proprietary oxide 1	0.08

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**US EPA Waste Number**

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Proprietary oxide 2	U115	Included in waste stream: F039		U115

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Caustic Soda 1310-73-2	Toxic Corrosive
Proprietary acid	Corrosive
Proprietary oxide 2	Toxic
Proprietary oxide 1	Toxic Ignitable

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

**UN/ID No** UN1760  
**Proper Shipping Name** Corrosive liquid, n.o.s. (Tetrasodium EDTA, Sodium hydroxide)  
**Hazard Class** 8  
**Packing Group** II

**IATA**

**UN/ID No** UN1760  
**Proper Shipping Name** Corrosive liquid, n.o.s. (Tetrasodium EDTA, Sodium hydroxide)  
**Hazard Class** 8  
**Packing Group** II

**IMDG**

<b>UN/ID No</b>	UN1760
<b>Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Tetrasodium EDTA, Sodium hydroxide)
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Marine Pollutant</b>	This material may meet the definition of a marine pollutant

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Tetrasodium EDTA	Present	X		Present		Present	X	Present	X	X
Caustic Soda	Present	X		Present		Present	X	Present	X	X
Proprietary acid	Present	X		Present		Present	X	Present	X	X
Proprietary oxide 1	Present	X		Present		Present	X	Present	X	X
Proprietary oxide 2	Present	X		Present		Present	X	Present	X	X

**Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

*AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations****CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Caustic Soda 1310-73-2	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Proprietary acid	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Proprietary oxide 2	10 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ
Proprietary oxide 1	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Proprietary oxide 2 -		<1	0.1
Proprietary oxide 1 -		<1	0.1

**CWA (Clean Water Act)**

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Caustic Soda	1000 lb			X
Proprietary acid	5000 lb			X
Proprietary oxide 1	100 lb			X

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Proprietary oxide 2 -	Carcinogen Developmental Female Reproductive Male Reproductive
Proprietary oxide 1 -	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Caustic Soda 1310-73-2	X	X	X
Proprietary acid	X	X	X
Proprietary oxide 2	X	X	X
Proprietary oxide 1	X	X	X

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical Hazards**

Not determined

**Personal Protection**

Not determined

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**Disclaimer**

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

**End of Safety Data Sheet**