



**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**

Harmful to aquatic life with long lasting effects

**Unknown Acute Toxicity**

2.705% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	60-65
Caustic Soda	1310-73-2	30-35
Sodium gluconate	527-07-1	1-10
Proprietary Surfactant	Proprietary	1-10
Proprietary Surfactant	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>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediately call a poison center or doctor/physician.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Inhalation</b>	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>	Rinse mouth. Do not induce vomiting. Immediately call a poison center or doctor/physician. Immediately give 3-4 glasses of milk, egg whites or gelatin solution (if none, give water for dilution). Never give anything by mouth to a person who is unconscious or convulsing.

**Most important symptoms and effects**

<b>Symptoms</b>	Causes severe skin burns and eye damage.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Water spray (fog). Foam. Halon. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Any "ABC" class.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

This product is corrosive and presents a significant contact hazard to firefighters. This product is not flammable however, it does react with water causing an exothermic reaction which will result in the severe spattering of the product. When involved in a fire, this material may decompose and produce caustic vapors and toxic gases (e.g. oxides of sodium and carbon).

**Hazardous Combustion Products** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Sodium oxides.

**Sensitivity to Mechanical Impact** Not sensitive.

**Sensitivity to Static Discharge** Not sensitive.

### 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. Chemical resistant clothing may be necessary. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Will ignite combustible materials (wood, paper, oil, debris, etc.).

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Uncontrolled releases should be responded to by appropriately trained personnel in proper personal protective equipment, using pre-planned procedures.

**Environmental Precautions** See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

**Methods for Containment** Keep unnecessary and unprotected personnel from entering contaminated area. Absorb material with an inert material. Prevent from entering drains, sewers, or other bodies of water, absorb unrecoverable product. Transfer contaminated material to containers for disposal.

**Methods for Clean-Up** Absorb spilled liquid with polypads or other suitable absorbent materials. Neutralize residue with citric acid or other neutralizing agents for basic materials.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection. Do not eat, drink, smoke, or apply cosmetics while handling this product. Remove contaminated clothing and shoes.

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

<b>Storage Conditions</b>	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Protect from direct sunlight. Keep away from heat. Keep from freezing. Store in a corrosion-proof area. Keep away from food, drink and animal feeding stuffs.
<b>Incompatible Materials</b>	Avoid contact with water as exothermic reaction may result. Strong acids. Organic halogen compounds. Organic nitro compounds. Aluminum. Zinc. Tin. Organic compounds such as leather and wool.

**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>

**Appropriate engineering controls**

<b>Engineering Controls</b>	Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations.
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**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Splash goggles or safety glasses. Face shields are recommended when the operation can generate splashes, sprays, or mists.
<b>Skin and Body Protection</b>	Wear neoprene or vinyl gloves for routine industrial use. Apron, coveralls, boots as necessary to prevent skin contact.
<b>Respiratory Protection</b>	Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	No distinct odor
<b>Appearance</b>	Blue liquid	<b>Odor Threshold</b>	Not Established
<b>Color</b>	Blue		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	13.5	
Melting Point/Freezing Point	0 °C / 32 °F	
Boiling Point/Boiling Range	119 °C / 246.2 °F	
Flash Point	Not flammable	
Evaporation Rate	Similar to water	(Water = 1)
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	76 mm Hg	@ 60°C
Vapor Density	Not determined	
Specific Gravity	1.33	@ 15.6°C
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not flammable	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Density	11.11 lb/ gal @15.6	

## 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.

#### **Hazardous Polymerization**

Under normal conditions of storage and use, hazardous polymerization will not occur.

### Conditions to Avoid

Incompatible Materials. Extreme temperatures.

### Incompatible Materials

Avoid contact with water as exothermic reaction may result. Strong acids. Organic halogen compounds. Organic nitro compounds. Aluminum. Zinc. Tin. Organic compounds such as leather and wool.

### Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Sodium oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Product Information**

#### **Eye Contact**

Causes severe eye damage.

#### **Skin Contact**

Causes severe skin burns. May be harmful in contact with skin.

#### **Inhalation**

Do not inhale.

#### **Ingestion**

Do not taste or swallow.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Caustic Soda 1310-73-2	-	= 1350 mg/kg ( Rabbit )	-
Proprietary Surfactant	= 2100 mg/kg ( Rat )	> 6310 mg/kg ( Rabbit )	-

**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**

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

Not determined

**Unknown Acute Toxicity** 2.705% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Caustic Soda 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Proprietary Surfactant	19.6: 96 h Pseudokirchneriella subcapitata mg/L EC50	8132: 96 h Pimephales promelas mg/L LC50 330: 96 h Lepomis macrochirus mg/L LC50 static		297: 48 h Daphnia magna mg/L EC50

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Proprietary Surfactant	-3.53

**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.

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Caustic Soda 1310-73-2	Toxic Corrosive

**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**                                      UN1824
- Proper Shipping Name**                Sodium hydroxide solution
- Hazard Class**                              8
- Packing Group**                            II

**IATA**

- UN/ID No**                                      UN1824
- Proper Shipping Name**                Sodium hydroxide solution
- Hazard Class**                              8
- Packing Group**                            II

**IMDG**

- UN/ID No**                                      UN1824
- Proper Shipping Name**                Sodium hydroxide solution
- Hazard Class**                              8
- Packing Group**                            II
- Marine Pollutant**                        This material may meet the definition of a marine pollutant

**15. REGULATORY INFORMATION**

**International Inventories**

- TSCA**    Listed
- DSL**    Listed

**Legend:**  
*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*  
*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

**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

**SARA 313**

Not determined

**CWA (Clean Water Act)**

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Caustic Soda 1310-73-2 ( 30-35 )	1000 lb			X

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

This product does not contain any Proposition 65 chemicals.

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Caustic Soda 1310-73-2	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	3	0	1	Not determined
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	3	0	1	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**