

Wear protective gloves/protective clothing/eye protection/face protection

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 get medical attention.

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 person to fresh air. Give oxygen or CPR if not breathing. Get Medical Attention.

IF SWALLOWED: Harmful if swallowed, get medical attention immediately.

Precautionary Statements – Storage

Store in cool, dry, well ventilated area away from heat or Flame.

Precautionary Statements –Disposal

Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Ethylene glycol monobutyl ether	111-76-2	4
Other components below reportable levels		

4. First aid measures

Eye contact:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediately call a POISON Center or doctor/physician.
Skin contact:	If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Seek medical attention.
Inhalation:	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.
Ingestion:	If swallowed, call Physician or Poison Control Center for most current information. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsion, or unable to swallow. Seek immediate medical attention immediately.
Symptoms	Most important symptoms and effects: Causes severe skin irritation and eye irritation. May cause respiratory irritation. Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach.

5. Fire-fighting measures

Flash point:	N/A
Flammability of the product	None, material is not flammable
Extinguishing media:	Foam, Water spray, Water, Carbon Dioxide (CO2), Dry Chemical
Non suitable extinguishing media	Not Determined
Specific Hazards Arising from the Chemical	Product reacts exothermically with water if exposed to extreme temperatures
Unusual Fire and Explosion Hazards	Toxic fumes may be emitted if material is exposed to extreme temperatures
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions:	Wear protective clothing as described in Section 8 of this safety data sheet
Environmental precautions:	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological information. See Section 13, Disposal Considerations, for additional information.
<u>Methods for cleaning up</u>	Pick up and transfer to property labeled container.
Small spill:	Pick up on absorbent material or flush away with water. Floor may be slippery when set.
Large spill:	Prevent further leakage or spillage. Dike spill area and cap leaking containers as necessary to prevent further spreading of spilled material. Absorb spilled liquid with suitable material such dirt or sand.

7. Handling and storage

Handling:	Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.
Storage	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Do not destroy or deface the label on container.
Incompatible Materials	Strong mineral acids, Strong acids. Chemically reactive metals such as aluminum and magnesium.

8. Exposure controls/personal protection

Exposure Guidelines:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Controls	Apply technical measures to comply with the occupational exposure limits. Local exhaust ventilation recommended. Eye wash stations. Showers.
<u>Individual-protection measures, such as personal protective equipment</u>	
Eye/Face Protection	Chemical anti-splash safety goggles.
Skin and Body Protection	Rubber gloves. Suitable protective clothing.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas. In case in inadequate ventilation wear respiratory protection.
General Hygiene considerations	Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. Physical and chemical properties

Physical state	Liquid
Odor	Mild Odor
Color	Clear Blue Liquid
pH	12-13
Boiling/condensation point	212°F
Vapor pressure	55 mmHg @ 20°C. Approx. Water
Percent Volative by weight:	90%
Solubility in water	100%
Specific gravity	1.0

10. Stability reactivity

Stability	Stable
Hazardous polymerization	Will not occur
Conditions to avoid	Keep away from heat or flame
Materials to avoid	Strong acids, strong oxidizing agents.
Hazardous decomposition products	If in a fire: CO, CO ₂ , Hydrocarbons

11. Toxicological information

None known

12. Ecological information

Environmental effects:
Not Determined

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. Disposal of this product, solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

DOT (U.S.): Not regulated

15. Regulatory information

Not Determined

16. Other information

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determined
<u>HMS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
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Indicates information that has changed from previously issued version.

Disclaimer

The information provided in the 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 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.

Exposure Guidelines

Chemical name	ACGIH-TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³
Sodium metasilicate	2 mg/m ³	2mg/m ³	

Engineering Controls **Apply technical measures to comply with the occupational exposure limits. Local exhaust ventilation recommended. Eye wash stations. Showers.**

Individual-protection measures, such as personal protective equipment

Eye/Face Protection Chemical anti-splash safety goggles

Skin and Body Protection Rubber gloves. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Approved/certified dust respirator or equivalent.

General Hygiene considerations Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. Physical and chemical properties

Physical state	Liquid
Color	Clear Blue
Odor	Mild Odor
pH	12-13
Boiling/condensation point	212 ⁰ F
Vapor pressure	55 mmHg @ 20 ⁰ C. Approx. Water
Percent Volative by weight	90%
Solubility in water	100%
Specific gravity	1.0
VOC	35.88 gr./liter

10. Stability reactivity

Stability Stable under recommended storage conditions

Hazardous polymerization Hazardous polymerization does not occur

Conditions to avoid Excessive heat. Avoid direct sunlight. Avoid moisture

Materials to avoid Strong mineral acids, Strong acids. Chemical reactive metals such as aluminum and magnesium. Dissolving product in water liberates much heat.

Hazardous decomposition products None known based on information sheet.

11. Toxicological information

Information on likely routes of exposure

Eye Contact Causes severe eye irritation

Skin Contact Causes severe skin irritation

Inhalation Harmful if inhaled

Ingestion

Harmful if swallowed

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC 50
Sodium Hydroxide 1310-73-2	-	=1350 mg/kg (Rabbit)	-
Sodium metasilicate	=600 mg/kg (Rat)	-	-

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 Not classifiable as a human carcinogen.

Numerical Measures of Toxicity-Product

Not determined

Special Remarks on Toxicity to Animals: No data available

Special Remarks on Chronic Effects on Humans: No data available

Special Remarks on other Toxic Effects on Humans: No data available

12. Ecological information**Ecotoxicity**

The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycol Ether EB Ethylene Glycol Monobutyl Ether		LC50 – other fish – 220 mg/l – 96 h		
Sodium Hydroxide 1310-73-2		45.4: 96h Oncorhynchus mykiss mg/L LC50 Static		
Sodium metasilicate 6834-92-0		210: 96 h Brachydanio rerio mg/L LC50 semi- static 210: 96 h Brachydanio rerio mg/L LC50		216: 96 h Daphnia magna mg/L EC50

Persistence/Degradability

Not Determined

Biopaccumulation

Not Determined

Mobility

Not Determined

Other Adverse Effects

Not Determined

13. Disposal considerations

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14. Transport information

DOT (U.S.): Not regulated

15. Regulatory information

International Inventories

Not determined

US Federal Regulations

This material, as supplied, contains one or more substances regulated as a hazardous substance under the comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Component	CWA –Reportable Quantities	CWA – Toxic Pollutants	CWA –Priority Pollutants	CWA-Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb			X

US State Regulations**California Proposition 65**

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity

16. Other information

HMIS**Health Hazards****Flammability****Reactivity****Personal Protection**

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End of Safety Data Sheet