

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sodium hydroxide	1310-73-2	<6
Glycol ether TPM	25498-49-1	<5
D-Sodium Silicate Solution	1344-09-8	>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

Description of first aid measures

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If irritation persists, seek medical attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Immediately call a poison center or doctor/physician.
Ingestion	Do NOT induce vomiting. Give large quantities of water. If available, give several glasses of milk or acidic beverages (tomato or orange juice, carbonated soft drinks). Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes severe skin burns and eye damage. Ingestion can cause severe burns and complete tissue perforation of mucous membranes of the mouth, throat, esophagus, and stomach if swallowed. Inhalation of low concentrations may cause mild irritation to eyes, nose, and throat. High concentrations may result in headache, drowsiness, and central nervous system depression.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Carbon dioxide (CO₂). Dry chemical. Alcohol foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Product is not flammable.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂).

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 protection recommended in Section 8.

Environmental precautions

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 Contain and collect with an inert absorbent and place into an appropriate container for disposal. Flush spill area with water to reduce slipping hazards.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Avoid contact with skin, eyes or clothing. 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 breathe dust/fume/gas/mist/vapors/spray. Keep containers closed when not in use. For industrial or professional use only.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Incompatible Materials Strong oxidizers. Ketones. Nitric acid. Sulfuric acid. Halogens. Halogen compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses.

Skin and Body Protection Rubber gloves.

Respiratory Protection No protection is ordinarily required under normal conditions of use and with adequate ventilation.

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

Physical state	Liquid	Odor	Slight odor
Appearance	Blue liquid	Odor Threshold	Not determined
Color	Blue		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	12.5 (as received)	
Melting point / freezing point	0 °C / 32 °F	
Initial boiling point and boiling range	100 / 212 °F	
Flash point	None established	
Evaporation Rate	<1	N-butyl acetate
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	None established	
Lower flammability or explosive limits	None established	
Vapor Pressure	None established	
Vapor Density	None established	
Relative Density	1.02	
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Hyphen	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	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.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep separated from incompatible substances. Keep out of reach of children.

Incompatible materials

Strong oxidizers. Ketones. Nitric acid. Sulfuric acid. Halogens. Halogen compounds.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Avoid breathing vapors or mists.

Ingestion Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydroxide 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Glycol ether TPM 25498-49-1	= 3200 mg/kg (Rat)	= 15440 mg/kg (Rabbit)	-
D-Sodium Silicate Solution 1344-09-8	= 1960 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

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 Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50	5,207.90 mg/kg
Dermal LD50	24,038.60 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium hydroxide 1310-73-2		LC50: =45.4mg/L (96h, Oncorhynchus mykiss)	
Glycol ether TPM 25498-49-1		LC50: =11619mg/L (96h, Pimephales promelas)	EC50: >10mg/L (48h, Daphnia magna)
D-Sodium Silicate Solution 1344-09-8		LC50: 301 - 478mg/L (96h, Lepomis macrochirus) LC50: =3185mg/L (96h, Brachydanio rerio)	

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Not determined

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
Sodium hydroxide 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 UN1760
 Proper Shipping Name Corrosive liquid, n.o.s. (Sodium hydroxide, Sodium silicate)
 Transport hazard class(es) 8
 Packing Group II

IATA

UN number or ID number UN1760
 Proper Shipping Name Corrosive liquid, n.o.s. (Sodium hydroxide, Sodium silicate)
 Transport hazard class(es) 8
 Packing group II

IMDG

UN number or ID number UN1760
 Proper Shipping Name Corrosive liquid, n.o.s. (Sodium hydroxide, Sodium silicate)
 Transport hazard class(es) 8
 Packing Group II
 Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AIC
Sodium hydroxide	X	ACTIVE	X	X	X	X	X	X	X
Glycol ether TPM	X	ACTIVE	X	X	X	X	X	X	X
D-Sodium Silicate Solution	X	ACTIVE	X	X	X	X	X	X	X
Sodium gluconate	X	ACTIVE	X	X	X	X	X	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)
Sodium hydroxide 1310-73-2	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Glycol ether TPM - 25498-49-1	25498-49-1	<5	1.0

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	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
Sodium hydroxide 1310-73-2	X	X	X
Glycol ether TPM 25498-49-1	X		X

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards	Flammability	Instability	Special hazards
	2	0	2	-
<u>HMS</u>	Health hazards	Flammability	Physical hazards	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