



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.80

Section 1 - Product and Company Information

Product Name	Sodium silicate solution		
Product Number	338443		
Brand	Aldrich Chemical		
Company	Sigma-Aldrich		
Street Address	3050 Spruce Street		
City, State, Zip, Country	SAINT LOUIS, MO 63103 US		
Technical Phone:	314 771 5765	Emergency Phone:	414 273 3850 Ext. 5996
Fax:	800 325 5052		

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	
SODIUM SILICATE SOLUTION	None	No	
<u>Ingredient Name</u>	<u>CAS #</u>	<u>Percent</u>	<u>SARA 313</u>
WATER	7732-18-5	59.000 %	No
SILICON DIOXIDE	7631-86-9	27.000 %	No
SODIUM HYDROXIDE	1310-73-2	14.000 %	No

Formula
Synonyms

Section 3 - Hazards Identification

Emergency Overview
Corrosive.
Causes severe burns.
Calif. Prop. 65 carcinogen. Target organ(s): Lungs.

HMS Rating
Health: 3* Flammability: 0 Reactivity: 1

NFPA Rating
Health: 3 Flammability: 0 Reactivity: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media

Suitable
Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill

Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Store in a cool dry place.

Incompatible Materials

Avoid contact with aluminum, Tin., Zinc.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

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Other

Faceshield (8-inch minimum).

General Hygiene Measures

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color
Physical State	
Liquid	Colorless

Molecular Weight: 242.23 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	1.39 g/cm ³
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A

Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity**Stability**

Stable

Stable.

Materials to Avoid

Strong oxidizing agents, Avoid contact with acid.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Sodium oxide, Silicon oxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Skin Contact**

Causes burns.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes burns.

Inhalation

Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion

May be harmful if swallowed.

Target Organ(s) or System(s)

Lungs.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations**Appropriate Method of Disposal of Substance or Preparation**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information**DOT**

Proper Shipping Name: Sodium hydroxide solution

UN#: 1824

Class: 8

Packing Group: Packing Group II

Hazard Label: Corrosive

PIH: Not PIH

IATA

Proper Shipping Name: Sodium hydroxide solution

IATA UN Number: 1824

Hazard Class: 8

Packing Group: II

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: C

Indication of Danger

Corrosive.

Risk Statements R: 35

Causes severe burns.

Safety Statements S: 26 36/37/39 45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Classification and Label Text

Indication of Danger

Corrosive.

Risk Statements

Causes severe burns.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements

Calif. Prop. 65 carcinogen. Target organ(s): Lungs.

United States Regulatory Information

SARA Listed: No

United States - State Regulatory Information

California Prop - 65

This product is or contains chemical(s) known to the state of California to cause cancer.

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.