

Material Safety Data Sheet

Revision Issued: 3/17/2009 Supercedes: 9/22/2000 First Issued: 4/10/1989

Section I - Chemical Product And Company Identification

Product Name: Silicate of Soda

CAS Number: 1344-09-8

HBCC MSDS No. CS13000



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Section II - Composition/Information On Ingredients

			Exposure Limits (TWAs) in Air		
Chemical Name	CAS Number	%	ACGIH TLV	OSHA PEL	STEL
Sodium Silicate	1344-09-8	38.3	N/A	N/A	N/A

Section III - Hazard Identification

Routes of Exposure:

Summary of Acute Health Hazards

Ingestion: A strong alkaline irritant. May cause severe irritation and possible tissue destruction to mucous membranes of the mouth, throat, esophagus and stomach.

Inhalation: Exposure to mist or spray may cause coughing, sneezing, or other symptoms of upper respiratory tract irritation. Severe exposure may result in lung tissue damage.

Skin: Causes severe irritation. Dries to form a glass film which can cut skin.

Eyes: Can cause severe irritation and possible corneal damage if not treated.

Effects of Overexposure:

Acute: Dusts and mist are irritating to mucous membranes of the respiratory tract, mouth, throat, esophagus and stomach. Irritating to eyes and skin. May cause corneal damage.

Chronic: The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant in varying degrees of irritation to the respiratory tract tissues.

Medical Conditions Generally Aggravated by Exposure: N/A

Note to Physicians: N/A

Section IV - First Aid Measures

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, **DO NOT INDUCE VOMITING.** Give large quantities of water. If available, give several glasses of milk (if there is no allergy to milk). If vomiting occurs spontaneously, keep airway clear. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation: If symptoms are present get person out of area to fresh air. GET MEDICAL ATTENTION IMMEDIATELY.

Skin: Wash with plenty of water for at least 15 minutes. Remove soiled clothing and footwear. Wash clothing before reuse. Footwear should be cleaned before reuse. GET MEDICAL ATTENTION IMMEDIATELY if symptoms are present.

Eyes: FLUSH MATERIAL and GET MEDICAL ATTENTION IMMEDIATELY. **Immediately** flush eyes with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. AGAIN GET MEDICAL ATTENTION IMMEDIATELY.

Section V - Fire Fighting Measures

Flash Point: Nonflammable **Autoignition Temperature:** Nonflammable

Lower Explosive Limit: N/A **Upper Explosive Limit:** N/A

Unusual Fire and Explosion Hazards: N/A

Extinguishing Media: This product is non-combustible. Water spray, dry chemical, CO₂, or foam may be used in areas where this product is stored.

Special Firefighting Procedures: Protective clothing for skin and eye protection should be worn.

Section VI - Accidental Release Measures

If a material is spilled or released, steps should be taken to contain liquids and prevent discharge to streams or sewers systems. Spills or releases should be reported, if required, to the appropriate local, state and federal regulatory agencies. Do not flush to sewer. Floors and other surfaces may be slippery.

Section VII - Handling and Storage

Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid).

Section VIII - Exposure Controls/Personal Protection

Respiratory Protection: Use NIOSH/MSHA approved respirator where mist or spray may be generated.

Ventilation: Where engineering controls are not feasible, and where mist or spray may be generated use adequate local exhaust ventilation.

Protective Clothing: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Face shield and goggles or chemical goggles should be worn.

Other Protective Clothing or Equipment: N/A

Work/Hygienic Practices: Wash thoroughly after handling or contact as exposure can cause burns which are not immediately painful or visible. Wash soiled clothing and dry before reuse. Keep container closed. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Section IX - Physical and Chemical Properties

Physical State: Liquid

pH: 11 – 12.5

Melting Point/Range: N/A

Boiling Point/Range: 102°C (216°F)

Appearance/Color/Odor: Clear to cloudy, viscous liquid; slightly soapy odor

Solubility in Water: 100%

Vapor Pressure (mmHg): 18 @ 20°C (68°F)

Specific Gravity (Water=1): 1.3 – 1.5 **Molecular Weight:** N/A

Vapor Density (Air=1): N/A **% Volatiles by Volume @ 21°C (70°F):** ca. 70

How to detect this compound : N/A

Section X - Stability and Reactivity

Stability: Stable **Hazardous Polymerization:** Will not occur

Conditions to Avoid: N/A

Materials to Avoid: Fluorine, mineral acids, organic acids, organic materials. May produce hydrogen gas on prolonged contact with metals. Gels when mixed with acids. Solution is strong base; reacts with acids, organic anhydrides, alkylene oxides, epichlorohydrin, aldehydes, alcohols, glycols, , phenols, cresols, caprolactam solution. Attacks chemically active metals.

Hazardous Decomposition Products: None

Section XI - Toxicological Information

Sodium silicate:

Oral rat LD50: > 1960 mg/kg;

Skin rabbit LD50: > 4640 mg/kg;

Standard Draize Test: skin rabbit 500 mg/24H severe; eye rabbit 10 mg/24h severe.

Section XII - Ecological Information

Environmental Toxicity:

Sodium Silicate:

96 Hr LC50 Lepomis macrochirus: 301-478 mg/L;

96 Hr LC50 Brachydanio rerio: 3185 mg/L [semi-static];

96 Hr EC50 Daphnia magna 216 mg/L.

Section XIII - Disposal Considerations

Clean-up action should be carefully planned and executed. Shipment, storage, and/or disposal of waste materials are regulated and action to handle spilled or released materials must meet the applicable rules. Check your appropriate Federal, State or Local regulations.

Section XIV - Transport Information

DOT Proper Shipping Name: N/A

DOT Hazard Class/ I.D. No.: N/A

Section XV - Regulatory Information

Reportable Quantity: N/A

NFPA Rating: Health - 2; Flammability - 0; Instability - 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Carcinogenicity Lists: None **NTP:** No **IARC Monograph:** No **OSHA Regulated:**

No

Section XVI - Other Information

Synonyms/Common Names: Liquid Sodium Silicate

Chemical Family/Type: Silicic Acid, Sodium Salt

Sections changed since last revision: III, VI, IX, X, XI, XII

IMPORTANT! Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Also, additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks prior to use, and then to exercise appropriate precautions for protection of employees and others.