

Safety Data Sheet

Sodium Silicate



Section 1. Identification

Product Identifier	Sodium Silicate
Synonyms	Water glass; Liquid sodium silicate; Sodium Silicate Liquid Siliceous; Silicate of Soda
Manufacturer Stock Numbers	N/A
Recommended use	Product is intended for professional Special Effects use only.
Uses advised against	Use of this material is at the sole risk of the purchaser.
Manufacturer Contact Address	Roger George Rentals 14525 Bessemer St Van Nuys, CA, 91411 USA
Phone	(818) 994-3049
Emergency Phone	(800) 535-5053 #85740
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Section 2. Hazards Identification

Classification	ACUTE TOXICITY - ORAL - Category 4 EYE DAMAGE/IRRITATION - Category 2A SKIN CORROSION/IRRITATION - Category 2
Signal Word	Warning
Pictogram	
Hazard Statements	Causes serious eye irritation Causes skin irritation Harmful if swallowed
Precautionary Statements Response	If eye irritation persists: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. If swallowed: Call a poison center/doctor if you feel unwell.

Prevention	Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.
Storage	N/A
Disposal	Dispose of contents/container in accordance with applicable local, regional, national, and/or international regulations.
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	No Data Available

Section 3. Ingredients

CAS	Ingredient Name	Weight %
1344-09-8	Silicic acid, sodium salt	50% - Max
7732-18-5	Water	80% - Max

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

Inhalation	May cause irritation, redness of upper and lower airways, coughing. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if cough or other symptoms appear.
Skin	In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Product is alkaline and may result tissue in contact to be irritated. This includes burns depending on the concentration, duration, and nature of the exposure. Skin exposure may cause irritation, redness, itching, swelling, burning sensation. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
Eye	Flush eye with plenty of water for 15 minutes while holding eyelids open. Remove contact lenses. Continue flushing for 15 minutes or until eyes return to normal. Get medical attention if irritation develops or persists. Eye exposure may cause severe irritation, and pain. The full extent of injury may not be immediately apparent.
Ingestion	Rinse mouth with water. Seek medical attention if symptoms occur. Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.
Notes to Physician	Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin such as: psoriasis, rashes, eczema, skin infections. Pulmonary disorders that compromise the integrity of the lungs such as asthma. Avoid contact with skin and eyes. Use personal protective equipment. Refer to

Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission. Treat as a corrosive substance. Treat symptoms with supportive care. There is no specific antidote. The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. It may take 48-72 hours to assess the extent of an ocular burn. Probable mucosal damage may contraindicate the use of gastric lavage.

Additional Information

Symptoms of exposure:
 Inhalation (Breathing): Respiratory System Effects: Inhalation of this material may cause irritation, redness of upper and lower airways, coughing.
 Skin: Skin Irritation. Skin exposure may cause irritation, redness, itching, swelling, burning sensation.
 Eye: Eye Irritation: Eye exposure may cause severe irritation, and pain. The full extent of injury may not be immediately apparent.
 Ingestion (Swallowing): Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing agents that are suitable to the surrounding fire.
Unsuitable Extinguishing Media	N/A
Fire Hazard	Negligible fire hazard.
Fire fighting instructions	Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Section 6. Accidental Release Measures

Precautionary Measures	Avoid contact with skin and eyes. Avoid breathing fumes, vapor, mist, or spray. Dries to form glass film which can easily cut skin. Spilled material may cause a slipping hazard. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS.
Clean-up	Flush spill area with water, if appropriate. Liquid material may be removed with a vacuum truck. Shovel dried residue into suitable container. Recycle or dispose according to regulations. See Section 13, Disposal considerations, for additional information.
Environmental Precautions	This material is alkaline and may raise the pH of surface waters with low buffering capacity. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

Section 7. Handling and Storage

General Information	Use proper personal protective equipment as indicated in Section 8.
Handling	Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Avoid breathing vapors, mist, or spray. Product shipped/handled hot can cause thermal burns. Use care when handling hot materials. Do not eat, drink, or smoke in the work area.
Storage	Store and handle in accordance with all current regulations and standards. Keep container closed and clearly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see below or

section 10 of the SDS).

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL Silicic
	acid, sodium salt	N/A	N/A	N/A
	Water	N/A	N/A	N/A
Personal Protective Equipment	N/A			
Engineering controls	If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. High standards of skin care and personal hygiene should be exercised at all times.			
Eye	Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.			
Skin	When material is heated, wear gloves to protect against thermal burns. Wear protective clothing to minimize skin contact. Wear appropriate heat resistant clothing when potential exists for contact with hot materials. Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.			
Respirators	A NIOSH-approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.			
Additional Information	This product does not contain any components that have regulatory occupational exposure limits (OEL's) established.			

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear to opaque
Odor	Slight
Odor Threshold	N/A
Solubility	Soluble
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	20 - 1500 cp
Specific Gravity	1.61
Density lbs/Gal	13.4
Pounds per Cubic Foot	N/A
Flash Point	N/A
FP Method	N/A
Ph	11.0 - 11.4
Melting Point	30 F / -1 C
Boiling Point	N/A
Boiling Range	214 - 216 F /

	101 - 102
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	N/A
Vapor Density	N/A

Section 10. Stability and Reactivity

Stability	Stable under normal temperatures and pressures.
Possible Hazardous Reactions	Contact with acids will cause gelling and evolution of heat. Prolonged contact with incompatible metals may produce flammable hydrogen gas.
Incompatibilities	Avoid contact with strong acids. Avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated.
Conditions to Avoid	Prolonged storage above 140 F / 60 C. Static discharge, shock, or vibration.

Section 11. Toxicological Information

Acute Toxicity	Standard Draize (Eye): Test results for solutions with the following pH/weight ratio of SiO ₂ /Na ₂ O are as follows: 11.6/2.54 = irritant; 11.6/2.4 = irritant; 12.2/2.0 = corrosive; 12.4/1.8 = corrosive LD ₅₀ Oral - rat 1153 mg/kg. LD ₅₀ Dermal - rabbit 4640 mg/kg. LC ₅₀ Inhalation - N/A.
Skin	Product is alkaline and may result tissue in contact to be irritated. This includes burns depending on the concentration, duration, and nature of the exposure. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis). Skin exposure may cause irritation, redness, itching, swelling, burning sensation. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
Eyes	Causes serious eye irritation. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. The full extent of the injury may not be immediately apparent.
Inhalation	Inhalation of mist, vapor, or spray may cause irritation of the respiratory tract, possibly with coughing, choking, and pain either immediately or within 72 hours.
Ingestion	Harmful if swallowed. May cause immediate pain and severe burns of the upper and lower gastrointestinal tract with vomiting, nausea, and diarrhea.
Additional Information	Solutions of sodium silicate are alkaline. Exposure to alkaline solutions may result in irritation to any contacted tissue, including possible burns, depending on the concentration, duration, and nature of the exposure. This material is not a crystalline silica, and it does not cause pulmonary silicosis.

Section 12. Ecological Information

Aquatic Life	This material is believed to be practically non-toxic to aquatic life.
Biodegradability	This material is inorganic and not subject to biodegradation.
Persistence	This material is believed to persist in the environment.

Bioconcentration This material is not expected to bioconcentrate in organisms.
Additional Information This material has exhibited slight toxicity to terrestrial organisms.

Section 13. Disposal

Compliance ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D001
Waste Material Reuse or recycle if possible. May be subject to disposal regulations.
Container Management Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

Section 14. Transport Information

UN Number N/A
UN Proper Shipping Name Non-regulated.
DOT Classification N/A
Packing Group N/A

Section 15. Regulatory Information

OSHA Hazard Communication Standard This product contains a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
SARA 311/312 Acute Health Hazard.
FDA Sodium Silicates have Generally Recognized as Safe (GRAS) status under specific FDA regulations. Refer to 21 Code of Federal Regulations (CFR) 173, 175, 176, 177, 182, and 184, which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).
California Prop. 65 This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact OxyChem Customer Relations.
Canada WHMIS Hazard Class D2B: Irritating to skin / eyes.

Section 16. Other Information

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