

Material Safety Data Sheet

Section 1 Product Description

Product Name: Sodium Silicate Solution
Recommended Use: Adhesive
Synonyms: Liquid Glass, Waterglass, Sodium Metasilicate
Distributor: Liquid Glass Concepts Ltd
PO Box 830460 | Richardson, TX 75083
1-323-284-8360
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)



Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Harmful if swallowed.

GHS Classification:

Acute Toxicity - Oral Category 4

Other Safety Precautions: May burn eyes

May cause gastrointestinal discomfort.

May cause irritation to respiratory tract.

May cause irritation to skin.

Section 3 Composition / Information on Ingredients

Chemical Name CAS # %

Water 7732-18-5 60

Sodium Silicate 1344-09-8 40

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact: After contact with skin, wash immediately with plenty of water.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.

Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained

breathing apparatus.

Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: Hydrogen

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Remove soiled clothing and launder before reuse. Surfaces may become slippery after spillage. Avoid contact with clothing. Avoid contact with material. Avoid creating and inhaling spray or mist. Avoid contact with skin and eyes. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Neutralize spill with a weak acid such as vinegar or acetic acid Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid creating and inhaling dust. Avoid contact with skin.

Storage: Store in a secure area suitable for corrosives.

Storage Code: Green - general chemical storage

Section 8 Protection Information

ACGIH OSHA PEL

Chemical Name (TWA) (STEL) (TWA) (STEL)

No data available N/A N/A N/A N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use.

Respirator Type(s): NIOSH approved air purifying respirator with dust/mist filter.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile

Section 9 Physical Data

Formula: Na₂SiO₃ in H₂O Vapor Pressure: N/A

Molecular Weight: 100.08 g/mol Evaporation Rate (BuAc=1): N/A
Appearance: Colorless to White Viscous Liquid Vapor Density (Air=1): N/A
Odor: No data available Specific Gravity: approx. 1.3
Odor Threshold: No data available Solubility in Water: Soluble
pH: 11.3 Log Pow (calculated): No data available
Melting Point: No data available Autoignition Temperature: No data available
Boiling Point: 100 C Decomposition Temperature: No data available
Flash Point: No data available Viscosity: No data available
Flammable Limits in Air: N/A Percent Volatile by Volume: 0%

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Incompatible Materials: Acids, Ammonium Salts, Aluminum alloys, Zinc
Hazardous Decomposition Products: Hydrogen
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, Ingestion, and Skin contact.
Symptoms (Acute): , Impaired Kidney Function
Delayed Effects: No data available
Acute Toxicity:
Chemical Name CAS Number Oral LD50 Dermal LD50 Inhalation LC50
Water 7732-18-5 Oral LD50 Rat
90000 mg/kg
Sodium Silicate 1344-09-8 Oral LD50 Rat
1960 mg/kg
Dermal LD50
Rabbit > 4640
mg/kg
Carcinogenicity:
Chemical Name CAS Number IARC NTP OSHA
No data available Not listed Not listed Not listed
Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Keep out of waterways.

Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data
Chemical Name CAS Number Eco Toxicity
Water 7732-18-5 No data available
Sodium Silicate 1344-09-8 96 HR LC50 LEPOMIS MACROCHIRUS 301 - 478 MG/L
96 HR EC50 DAPHNIA MAGNA 216 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name: Air - IATA Proper Shipping Name:
Not Regulated For Transport Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.
Chemical Name CAS
Number
§ 313 Name § 304 RQ CERCLA RQ § 302 TPQ CAA 112(2)
TQ
No data available No

Section 16 Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Liquid Glass Concepts Ltd makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health