

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Sodium Silicate Solution

CAS number See section 3

Synonyms Water glass

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
 12501 Pauls Valley Road
 Austin, Texas 78737
 U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin corrosion (Category 1), H314
Serious eye damage (Category 1), H318

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 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/ doctor.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Silicic acid, sodium salt	-	1344-09-8	37-40%
Water	-	7732-18-5	60-63%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
In case of eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given.

5.2 Specific hazards arising from the substance or mixture

Sodium oxides.
silicon oxides.
Not combustible.
Ambient fire may liberate hazardous vapours.

5.3 Special protective equipment and precautions for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® OH⁻, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

Refer to protective measures listed in Sections 7 and 8. See section 13 for proper disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No aluminium, tin, or zinc containers.

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons.

Incompatibilities

Gels when mixed with acids.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

Contains no substances with occupational exposure limit values.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles.

Skin protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body Protection

Protective clothing.

Respiratory protection

Recommended Filter type: Filter type ABEK. The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Required when vapours/aerosols are generated.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Odorless
Odor Threshold	No information available
pH	11.0 - 11.5 at 50 g/l at 20 °C (68 °F)
Melting Point/Range	0 °C (32 °F)
Boiling Point/Range	> 100 °C > 212 °F at 1,013 hPa
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	Not classified as explosive
Lower	Not classified as explosive
Vapor Pressure	No information available
Vapor Density	No information available
Density	ca.1.35 g/cm ³ at 20 °C (68 °F)
Solubility	No information available
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Oxidizing properties	None

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Fluorine

Generates dangerous gases or fumes in contact with:

Aluminum

Zinc

Tin

various alloys

(generation of hydrogen)

can decompose violently in contact with:

Acids

Violent reactions possible with:

The generally known reaction partners of water.

10.4 Conditions to avoid

Incompatibilities.

10.5 Incompatible materials

See 10.3.

10.6 Hazardous decomposition products

In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Mixture	Rat - > 2,000 mg/kg	-	-

Skin corrosion/irritation

Remarks: Mixture causes serious eye damage.

Risk of blindness!

Serious eye damage/eye irritation

No information available.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Silicic acid, sodium salt	1344-09-8	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1 Toxicity****Mixture:****Toxicity to fish**

LC50 - Danio rerio (zebra fish) - 3,185 mg/l - 96 h

Remarks: (refers to pure substance)

(External MSDS)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 494 mg/l - 48 h

Remarks: (ECOTOX Database)

(anhydrous substance)

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Harmful effect due to pH shift.

Neutralise before sewage disposal.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)

UN Number	1719
Proper Shipping name	Caustic alkali liquids, n.o.s.
Hazard Class	8
Packaging Group	II
Technical name	Sodium Silicate

IMDG

UN Number	1719
Proper Shipping name	Caustic alkali liquids, n.o.s.
Hazard Class	8
Packaging Group	II
Technical name	Sodium Silicate

IATA

UN Number	1719
Proper Shipping name	Caustic alkali liquids, n.o.s.
Hazard Class	8
Packaging Group	II
Technical name	Sodium Silicate

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed/applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed/applicable.

SARA 304 Emergency release notification

Not listed/applicable.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed/applicable.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed/applicable.

SARA 311/312 Hazardous

Not listed/applicable.

SARA 313 (TRI reporting)

Not listed/applicable.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not listed/applicable.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not listed/applicable.

Safe Drinking Water Act

Not listed/applicable.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed/applicable.

US state regulations

US. Massachusetts RTK - Substance List

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Water: Listed.

California Proposition 65

Not listed.

SECTION 16: Other information

Date of Issue: 6/27/2025

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.