



SAFETY DATA SHEET

According to 29 CFR 1910.1200

SODIUM SILICATE

Date of issue: September 01, 2023 Revision date: - Version: 1

SECTION 1.- IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Product form Liquid
Substance name Sodium silicate
CAS No. 1344-09-8
Formula Na₂SiO₃
Synonyms No data available

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

Use of the substance/mixture According to the product's technical data sheet.

1.3 Details of the supplier of the safety data sheet

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo
Hermosillo, Sonora, México. C.P. 83297 Tel. 011 (662) 251-0010 / (662) 251-0316
ventas@qpima.com
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1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

SECTION 2.- HAZARD IDENTIFICATION

2.1 GHS-US classification

Acute Toxicity (Oral)	4	H302
Skin Corrosion/Irritation	2	H315
Serious Eye Damage/Eye Irritation	2A	H319

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal Word (GHS-US):

Warning

Hazard statement (GHS-US):

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

Precautionary statements (GHS-US):

P264 Wash exposed skin thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: call a POISON CENTER/doctor/ IF you feel unwell.

P330 Rinse mouth.



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P302+P352 IF ON SKIN: wash with plenty of water.
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P337+P313 IF eye irritation persists: Get medical advice/attention.
P501 Dispose of the contents/container following federal, state, and local laws.

2.3 Other hazards

No data available

2.4 Unknown acute toxicity (GHS-US)

Not applicable

SECCIÓN 3.- COMPOSITION / INFORMATION OF INGREDIENTS

3.1 Substance

Name	Product identifier	%
Sodium silicate	(CAS No.) 1344-09-8	37 - 46

3.2 Mixture

Not applicable

SECCIÓN 4.- FIRST AID MEASURE

4.1 Description of first aid measure

First-aid measures general

Check vital signs. Unconscious: keep airways clear and provide breathing assistance. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform CPR. Conscious victim with breathing difficulty: semi-upright position. Victim in shock: lying on back with legs slightly elevated. Vomiting: prevent choking or aspiration. Avoid cooling by covering the victim (without heating). Continue monitoring the victim. Provide psychological support. Keep the victim calm, and avoid physical strain. Depending on the victim's condition: seek medical attention/hospital. Never give anything by mouth to an unconscious person. If feeling unwell, seek medical attention (if possible, show the label).

First-aid measures after eye contact

Rinse immediately with water for an extended period (at least 15 minutes), keeping the eyelids open. If discomfort occurs or in case of doubt, consult a doctor.

First-aid measures after skin contact

Remove contaminated clothing and immediately wash all exposed skin areas with plenty of water. If discomfort occurs or in case of doubt, consult a doctor.

First-aid measures after inhalation

If inhaled, move to fresh air and keep at rest in a comfortable position for breathing. Give oxygen or artificial respiration if necessary. If discomfort occurs or in case of doubt, consult a doctor.

First-aid measures after ingestion

Never give anything by mouth to an unconscious person. Rinse the mouth with water. Drink plenty of water. Call a doctor if the person feels unwell.

4.2 Most important

Symptoms/injuries after inhalation

Irritation.

Symptoms/injuries after skin contact

Irritation.

Symptoms/injuries after eye contact

Irritation.

Symptoms/injuries after ingestión

Irritation, pain.

Chronic symptoms

No data available



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4.3 Indications of any immediate medical attention and special treatment needed

No data available

SECCIÓN 5.- FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing agents appropriate for the surrounding fire type. To extinguish the fire, use water spray, dry chemical, carbon dioxide, or chemical foam.

Unsuitable extinguishing media No data available

5.2 Special hazard arising from the substance or mixture

Fire hazard No data available

Explosion hazard Stable at room temperature and under normal conditions of use.

Reactivity No data available.

5.3 Advice for firefighters

Precautionary measures fire No data available

Firefighting instructions Do not allow water to enter the containers. In case of fire and/or explosion, do not inhale the fumes. Coordinate firefighting measures in the area. Prevent firefighting water from reaching drains. Collect firefighting water separately. Fight the fire from a safe distance, taking usual precautions.

Protection during firefighting Use a self-contained breathing apparatus. Structural firefighter protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

SECCIÓN 6.- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment Use the recommended protective equipment in section 8.

Emergency procedures Avoid ignition sources. Evacuate personnel to a ventilated area.

Measures in case of dust release Ventilate immediately, especially in low-lying areas where vapors may accumulate.

6.1.2 For emergency responders

Do not inhale vapors/aerosols. Avoid contact with eyes and skin. Risk of slipping in case of product spillage. Use the recommended protective equipment in section 8.

6.2 Environmental precautions

Keep the product away from drains, surface water, and groundwater. Retain and dispose of contaminated washing water.

6.3 Methods and material for containment and cleaning up

Method for containment Contain and collect any contaminated material. Prevent runoff into sewers, waterways, or disposal in areas where surface water or groundwater could be affected.

Method for cleaning up The contaminated material should be placed in a container for disposal following local regulations (see section 13).

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection

SECTION 7.- HANDLING AND STORAGE

7.1 Precautions for safe handling



Precautions for safe handling

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Hygiene measures

Use local and general ventilation. Use only in well-ventilated areas. Wash hands after each use. Do not eat, drink, or smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Do not store food and chemicals together. Do not use containers normally used for food storage to store chemicals. Keep away from food, beverages, and animal feed.

Handle according to safety regulations for chemical products. Wearing closed work clothing is an additional requirement as indicated for personal protective equipment. While in use, eating, drinking, or smoking is prohibited. Wash hands and/or face before breaks and at the end of work. Gloves should be regularly checked and inspected before use. Replace if necessary (e.g., if they have small holes). Remove contaminated clothing immediately. Wash contaminated clothing before reuse. Store work clothing separately.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store only in the original container in a cool, well-ventilated place, away from incompatible materials. Keep the container tightly closed when not in use.

Incompatible products

This material is alkaline and generates heat when mixed with acids. It can react with ammonium salt solutions, resulting in the evolution of ammonia gas. It can produce hydrogen gas when in contact with aluminum, tin, lead, and zinc.

Heat-ignition

This material is alkaline and generates heat when mixed with acids.

Storage area

Store only in the original container in a cool, well-ventilated place, away from incompatible materials.

Special rules on packaging

Store in a tightly sealed, dry, clean, and properly labeled container. Comply with applicable regulatory requirements. Secure fragile packaging in sturdy containers.

Packaging materials

No data available

7.3 Specific end use(s)

No additional information is available

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
SODIUM SILICATE 1344-09-8	No data available	No data available	No data available

8.2 Exposure controls

Appropriate engineering controls

Eye wash stations and safety showers should be available nearby during use/handling. Provide exhaust ventilation or other engineering controls to maintain vapor or dust concentrations (total/respirable) below the applicable occupational exposure limits mentioned above. It is recommended that all dust control equipment such as local ventilation and material handling systems involved in handling this product contain explosion relief vents, explosion suppression systems, or an oxygen-deficient atmosphere. Ensure that dust handling systems (such as exhaust ducts, dust collectors, containers, and processing equipment) are designed to prevent dust leakage into the work area (i.e., no equipment leaks).



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Personal protective equipment	Chemical safety goggles with side shields, full-face shields, gloves, boots, apron, and respirator for organic vapors.
Material for protective clothing	Neoprene, PVC, rubber.
Hand protection	Use appropriate protective gloves to avoid skin exposure.
Eye protection	Chemical safety goggles with side shields and a full-face shield if direct contact with the product is possible.
Skin and body protection	Use a face shield, gloves, boots, neoprene, PVC, rubber, or other resistant material overall or apron.
Respiratory protection	If aerosol or mist formation occurs, use a respirator for organic vapors.
Environmental exposure controls	Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear liquid to opalescent gray
Odor	Odorless
Color	Clear to opalescent gray
Molecular mass	122.06 g/mol
Odor threshold	No data available
pH	11 – 13 (20 °C)
pH solution	10 g/l
Relative evaporation rate (butyl acetate = 1)	No data available
Melting/Freezing point	No data available
Boiling point	> 100 °C
Flash point	No data available
Self-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapor pressure	No data available
Relative vapor density at 20 °C	No data available
Relative density	1.36 – 1.40 (20 °C)
Solubility	100% in water
Log Kow/Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	50 – 200 cP (20 °C)
Explosive properties	No data available
Oxidizing properties	No data available
Explosive limits	No data available

9.2 Other information

No additional information is available

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	This material is stable under normal handling and storage conditions.
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10.2 Chemical stability	This material is stable under normal handling and storage conditions.
10.3 Possibility of hazardous reactions	Strong reactions with acids, zinc, aluminum, and hydrogen.
10.4 Conditions to avoid	This material is stable under normal handling and storage conditions.
10.5 Incompatible materials	This material is alkaline and generates heat when mixed with acids. It can react with ammonium salt solutions, resulting in the evolution of ammonia gas. It can produce hydrogen gas when in contact with aluminum, tin, lead, and zinc.
10.6 Hazardous decomposition products	Hydrogen

SECTION 11.- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure	Skin and eye contact, inhalation, and ingestion.
Acute toxicity	Causes irritation in the mouth, esophagus, and stomach.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes severe eye irritation.
Respiratory or skin sensitization	Irritation.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target toxicity (single exposure)	No data available.
Specific target toxicity (repeat exposure)	No data available
Aspiration hazard	No data available

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Sodium silicate	No data available	No data available	No data available

SECTION 12.- ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – General	No data available
Ecology – Air	No data available
Ecology – Water	This material has demonstrated toxicity to aquatic organisms: EC ₅₀ <i>D. magna</i> (494 mg/l, 48 h) LC ₅₀ fish (1108 mg/l, 96 h) EC ₅₀ aquatic invertebrates (1700 mg/l, 48 h) ErC ₅₀ algae (345.4 mg/l, 72 h)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available



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12.5 Other adverse effects

Other information

This material is not persistent in aquatic systems; however, its high pH when undiluted or not neutralized is extremely harmful to aquatic life

SECCIÓN 13.- INFORMACIÓN RELATIVA A LA ELIMINACIÓN DE LOS PRODUCTOS

13.1 Waste treatment methods

Waste treatment methods

Dispose of products and containers as hazardous waste. Dispose of contents/containers following local, regional, national, or international regulations. Do not dispose of waste in drains. Avoid release to the environment. Obtain specific instructions from the safety data sheet.

Waste disposal recommendations

Empty containers can be recycled. Handle contaminated containers the same way as the substance.

SECTION 14.- TRANSPORT INFORMATION

14.1 UN Number

Unregulated

14.2 UN proper shipping name

Unregulated

14.3 Class of hazards in transportation

Unregulated

14.4 Packaging group

Unregulated

14.3 Additional information

Other information

No additional information is available

Overland transport

No additional information is available.

Transport by sea

No additional information is available.

Air transport

No additional information is available.

SECTION 15.- REGULATORY INFORMATION

International inventories

TSCA

TSCA – Toxic Substances Control Act Inventory Section 8(b).

DSL/NDSL - Domestic Substance List/Non-Domestic Substance List.

US Federal Regulations: Not available

SARA 311/312 Categories.

Acute Health Hazard No Chronic Health Hazard No Fire Hazard No

Sudden Hazardous Pressure Release No Reactive Hazard No

Clean Water Act. No data available

CERCLA. No data available

Other regulations. Norma Oficial Mexicana NOM-002-SCT/2011, Listado de las sustancias y materiales peligrosos más usualmente transportados.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health Hazard	1	NFPA fire Hazard	0	NFPA instability Hazard	0	NFPA Special hazard	ALC
HMIS III	Health	1	Flammability	0	Physical	0	Personal protection	H
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Safety glasses, gloves, apron, and vapor respirator.



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End of Safety Data Sheet