

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Name:** Sodium Silicate Solution

**Product Number:** All applicable American Elements product codes, e.g. NA-SIAT-01-SOL

**CAS #:** 1344-09-8

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

**Emergency telephone number:**

+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labeled according to the CLP regulation.

· Hazard pictograms GHS07

· Signal word Warning

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P280 Wear eye protection / face protection.

P321 Specific treatment (see on this label).

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

- 2.3 Other hazards
  - Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

- 3.1 Chemical characterization: Substances
  - CAS No. Description
  - 1344-09-8 Sodium Silicate
  - Silicic acid, sodium salt
  - Identification number(s)
  - EC number: 215-687-4
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### **SECTION 4. FIRST AID MEASURES**

- 4.1 Description of first aid measures
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: Rinse out mouth and then drink plenty of water.
  - 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
  - 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.
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### **SECTION 5. FIREFIGHTING MEASURES**

- 5.1 Extinguishing media
  - Suitable extinguishing agents:
  - CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - 5.2 Special hazards arising from the substance or mixture No further relevant information available.
  - 5.3 Advice for firefighters
  - Protective equipment: No special measures required.
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### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions:
- Keep contaminated washing water and dispose of appropriately.
- Do not allow to enter sewers/ surface or ground water.

- 6.3 Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
  - 6.4 Reference to other sections  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
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## **SECTION 7. HANDLING AND STORAGE**

- 7.1 Precautions for safe handling No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires: No special measures required.
  - 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
  - 7.3 Specific end use(s) No further relevant information available.
  - Additional information about design of technical systems: No further data.
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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- 8.1 Control parameters
  - Components with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists that were valid during the creation were used as basis.
- 8.2 Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Avoid contact with the eyes and skin.
    - Breathing equipment:  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
    - Protection of hands:  
Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - Material of gloves  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
    - Penetration time of glove material  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - Eye protection:  
Tightly sealed goggles

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:  
Form: Fluid  
Color: Colorless
- Odor: Odorless
- Odour threshold: Not determined.
- pH-value (konz. g/l) at 20 °C (68 °F): 11 -12.5
- Change in condition  
Melting point/Melting range: 0 °C (32 °F)  
Boiling point/Boiling range: ca 100 °C (ca 212 °F)
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature:  
Decomposition temperature: Not determined.
- Auto igniting: Not determined.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:  
Lower: Not determined.  
Upper: Not determined.
- Vapor pressure at 20 °C (68 °F): 2.2 hPa (2 mm Hg)
- Density at 20 °C (68 °F): 1.37 g/cm<sup>3</sup> (11.433 lbs/gal)
- Relative density Not determined.
- Vapour density Not determined.
- Evaporation rate Not determined.
- Solubility in / Miscibility with  
Water: Not determined.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:  
Dynamic: Not determined.  
Kinematic: Not determined.
- 9.2 Other information No further relevant information available.

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## SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

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## SECTION 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
- Acute toxicity:

- LD/LC50 values that are relevant for classification:  
Oral LD50 > 2000 mg/kg (rat)
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    - Carcinogenic categories
    - IARC (International Agency for Research on Cancer) Substance is not listed.
    - NTP (National Toxicology Program) Substance is not listed.
    - OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.
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## **SECTION 12. ECOLOGICAL INFORMATION**

- 12.1 Toxicity
    - Aquatic toxicity: No further relevant information available.
  - 12.2 Persistence and degradability No further relevant information available.
  - 12.3 Bioaccumulative potential No further relevant information available.
  - 12.4 Mobility in soil No further relevant information available.
  - Additional ecological information:
    - General notes:  
Water hazard class 1 (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - 12.5 Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - 12.6 Other adverse effects No further relevant information available.
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## **SECTION 13. DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods
    - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.
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## **SECTION 14. TRANSPORT INFORMATION**

- 14.1 UN-Number
  - DOT, ADR, ADN, IMDG, IATA Void
- 14.2 UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA Void
- 14.3 Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
  - Class Void
- 14.4 Packing group
  - DOT, ADR, IMDG, IATA Void
- 14.5 Environmental hazards: Not applicable.
- 14.6 Special precautions for user Not applicable.

- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
  - Transport/Additional information: Not dangerous according to the above specifications.
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## **SECTION 15. REGULATORY INFORMATION**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
No further relevant information available.
  - 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
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## **SECTION 16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.