

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.29.2014

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Sodium Silicate, ~37%

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Sodium Silicate, ~37%

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25566

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Corrosive



Irritant



Health hazard

Corr Metals. 1
Skin Corr. 1A
Eye Damage. 1
Specific Target. Organ tox. 3 (single exposure)
Specific Target. Organ tox. 1 (repeated exposure)

Signal word :Danger

Hazard statements:

May be corrosive to metals
Causes severe skin burns and eye damage
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure

Precautionary statements:

If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Keep only in original container

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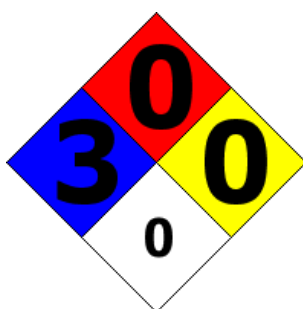
Do not breathe dust/fume/gas/mist/vapours/spray
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Wash skin thoroughly after handling
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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 or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)
Wash contaminated clothing before reuse
Absorb spillage to prevent material damage
Store in a well ventilated place. Keep container tightly closed
Store locked up
Store in corrosive resistant stainless steel container with a resistant inner liner
Dispose of contents and container as instructed in Section 13

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	3
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 1344-09-8	Silicic acid, sodium salt	37 %
CAS 7732-18-5	Water, purified	63 %
Percentages are by weight		

SECTION 4 : First aid measures

Description of first aid measures

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After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Immediately get medical assistance.

After skin contact: Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

After eye contact: Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Immediately get medical assistance.

After swallowing: Induce vomiting if directed to do so by medical personnel. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.;

Indication of any immediate medical attention and special treatment needed:

Provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Nonflammable. Use any means suitable for extinguishing surrounding fire.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors.

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Environmental precautions:

Collect contaminated soil for characterization per Section 13 .

Methods and material for containment and cleaning up:

Dilute with water and absorb with suitable material and containerize for disposal. If necessary neutralize with dilute acetic acid solution. Avoid runoff into sewer. Always obey local regulations.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid breathing vapors, mist, or gas. Use only in well ventilated areas. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Wash hands and exposed skin with soap and plenty of water.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, dry, and well-ventilated area. Store away from incompatible materials. Store away from food.

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SECTION 8 : Exposure controls/personal protection



Control Parameters:

7631-86-9, Silicon dioxide, USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts: 20 Million particles per cubic foot
7631-86-9, Silicon dioxide, USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts: 80mg/m³ / %SiO₂
7631-86-9, Silicon dioxide, USA. NIOSH Recommended Exposure Limits: 6 mg/m³
1310-73-2, Sodium hydroxide, USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000: 2 mg/m³
1310-73-2, Sodium hydroxide, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants: 2 mg/m³
1310-73-2, Sodium hydroxide, USA. ACGIH Threshold Limit Values (TLV): 2 mg/m³
1310-73-2, Sodium hydroxide, USA. NIOSH Recommended Exposure Limits: 2 mg/m³

Appropriate Engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection: Use under a fume hood.

Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Eye protection: Safety glasses with side shields or goggles.

General hygienic measures: Avoid contact with the eyes and skin. Wash hands and exposed skin with soap and plenty of water. Wash hands before breaks and immediately after handling the product. Do not eat, drink, smoke, or use personal products when handling chemical substances.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Colorless turbid liquid	Explosion limit lower: Explosion limit upper:	Non Explosive Non Explosive
Odor:	Slight soapy odor	Vapor pressure:	Not Available
Odor threshold:	No Information	Vapor density:	No Information
pH-value:	12.5	Relative density:	1.390 g/cm ³ at 20°C
Melting/Freezing point:	-1°C	Solubilities:	Soluble
Boiling point/Boiling range:	101-102°C	Partition coefficient (n-octanol/water):	No Information
Flash point (closed cup):	Not Applicable	Auto/Self-ignition temperature:	Not Applicable

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Evaporation rate:	Not Available	Decomposition temperature:	Not Available
Flammability (solid,gaseous):	Not Applicable	Viscosity:	a. Kinematic:Not Available b. Dynamic: Not Available
Density: No Information			

SECTION 10 : Stability and reactivity

Reactivity:Non-reactive under normal processing.

Chemical stability:Stable under normal conditions.

Possible hazardous reactions:None under normal processing.

Conditions to avoid:Excessive heat.Incompatible materials.

Incompatible materials:Gels when mixed with acids.

Hazardous decomposition products:Contact with acids will cause gelling of the silicate and the evolution of some heat.

SECTION 11 : Toxicological information

Acute Toxicity:	
Oral:	APS LD50 orl-rat: 1960mg/kg (Sodium silicate)
Chronic Toxicity: No additional information.	
Corrosion Irritation: No additional information.	
Sensitization:	No additional information.
Single Target Organ (STOT):	No additional information.
Numerical Measures:	No additional information.
Carcinogenicity:	No additional information.
Mutagenicity:	No additional information.
Reproductive Toxicity:	No additional information.

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability: Readily degradable in the environment.

Bioaccumulative potential:

Mobility in soil: Aqueous solution has high mobility in soil.

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal, state, provincial, and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

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SECTION 14 : Transport information

UN-Number

UN3266

UN proper shipping name

Corrosive liquid, basic, inorganic, n.o.s. 8

Transport hazard class(es)

Packing group:III

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

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This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA)

RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

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Last updated : 03.19.2015