



Safety Data Sheet

Section 01 - Identification

Product Identifier	Sodium Silicate, Solution
Other Means of Identification	Water Glass
Product Use and Restrictions on Use	Adhesive, binder, pulp & paper, water treatment, catalysts & gels
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Irritation	Category 1

Physical Hazards

None known

Danger

Hazard Statements

H315 – Causes skin irritation

H318 – Causes serious eye damage.

Pictograms



Precautionary Statements

P264 – Wash affected body parts thoroughly after handling
 P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
 P302 + P352 – IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 – Immediately call a POISON CENTER or doctor/physician.
 P332 + P313 – If skin irritation occurs: Get medical advice/attention.
 P362 + P364 – Take off contaminated clothing and wash it before reuse.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium silicate	1344-09-8	30-40%	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove source of contamination or move victim to fresh air. Seek immediate medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists. Wash contaminated clothing and foot ware before reuse.
Eye Contact	Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Seek immediate medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use an extinguishing media suitable for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Not Available
Special Protective Equipment for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
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Environmental Precautions	Do not allow entry into sewers or waterways.
Methods and Materials for Containment and Cleaning Up	Mop up and neutralize liquid then discharge to sewer in accordance with provincial and local regulations. For large spills, isolate area and keep people away. Stop leaks only if it is safe to do so. Do not touch or walk through liquid. Prevent entry into sewers, using sand or earth to contain liquid. Suck up material with shop vac, or vacuum truck for very large spills. If spill cannot be contained neutralize liquid and flush with flooding quantities of water.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Avoid generating dust and mist. Prevent the release of dust and mist into the workplace air.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated place. Keep container tightly closed, and away from incompatible materials (especially acids).
Incompatibilities	None known

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Not Available			

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.
Respiratory Protection	If there is a large amount of particulate in the air, provide suction extractors or ensure that each worker's air supply is safe, using a tight fitting dust mask or equivalent device.

Thermal Hazards

Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Viscous liquid
Colour	Clear and colourless
Odour	Odourless
Odour Threshold	Not Applicable

Property

pH	~11.3
Melting Point/Freezing Point	Not Available
Initial Boiling Point and Boiling Range	Not Available
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	Not Applicable
Relative Density	1.36 g/cm ³
Solubility(ies)	Miscible in water
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Available
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Available
Bulk Density	Not Available
% Volatiles by Volume	Not Available

Formula Na₂SiO₃

Molecular Weight 122.06

Section 10 - Stability and Reactivity

Reactivity Not Available
Stability Stable under normal conditions
Possibility of Hazardous Reactions Polymerization will not occur.
Conditions to Avoid Not Available
Incompatible Materials None known
Hazardous Decomposition Products Not Available

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	LC ₅₀
Sodium Silicate	1100 mg/kg (mouse)	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Silicate	Not considered to be carcinogenic by NTP, IARC, and O and ACGIH.

Skin Corrosion/Irritation Irritating to the skin
Ingestion Causes vomiting and diarrhea.
Inhalation Can result in irritation.
Serious Eye Damage/Irritation Accidental eye exposure followed prompt washing with water have been observed to damage the corneal epithelium.
Respiratory or Skin Sensitization Not Available
Germ Cell Mutagenicity Not Available
Reproductive Toxicity Not Available
STOT-Single Exposure Not Available
STOT-Repeated Exposure Not Available
Aspiration Hazard Not Available
Synergistic Materials None known

Section 12 - Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Silicate	Not Available	Not Available	Not Available
Biodegradability	Inorganic material, already present in the environment.		
Bioaccumulation	No bioaccumulation potential		
Mobility	The product is not expected to adsorb, and is expected to have a moderate to high mobility in soil.		
Other Adverse Effects	High pH of product may lead to modification of pH levels in water. Has been commercially used as a herbicide.		

Section 13 - Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 - Transport Information

UN Number	Not regulated
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packaging Group	Not applicable
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available.
Transport in Bulk	Not Available.
Additional Information	Not Available

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 - Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 - Other Information

Preparation Date 2018 February 1

Revision Date

June 8, 2018

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.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA
- 7) PAN

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