



# Safety Data Sheet

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## Section 01 - Identification

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<b>Product Identifier</b>	Sodium Fluorosilicate
<b>Other Means of Identification</b>	Sodium silicofluoride Sodium hexafluorosilicate, SFS, sodium silica fluoride
<b>Product Use and Restrictions on Use</b>	Water treatment, chemical processing, industrial/institutional cleaners, manufacture soaps/detergents, textiles.
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
<b>24-Hour Emergency Phone</b>	Phone: 1 (306) 664 – 2522

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## Section 02 - Hazard Identification

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### GHS-Classification

<b>Acute Toxicity-Oral</b>	Category 3
<b>Acute Toxicity-Dermal</b>	Category 3
<b>Acute Toxicity-Inhalation</b>	Category 3

### Physical Hazards

No known physical hazards.

### **Danger**

### **Hazard Statements**

H301 – Toxic if swallowed.  
H311 – Toxic in contact with skin.  
H331 – Toxic if inhaled.

### **Pictograms**



### **Precautionary Statements**

P261 – Avoid breathing dust.  
P271 – Use only outdoors or in a well-ventilated area.  
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

P264 – Wash hands thoroughly after handling.  
 P270 – Do not eat, drink or smoke when using this product.  
 P280 – Wear protective gloves, protective clothing, eye protection, and face protection.  
 P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P330 – Rinse mouth.  
 P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.  
 P362 – Take off contaminated clothing and wash before reuse.  
 P405 – Store locked up.  
 P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium Silicofluoride	16893-85-9	>98%	

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## Section 04 - First Aid Measures

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<b>Inhalation</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water for 30 minutes. Seek medical attention.
<b>Eye Contact</b>	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If irritation persists, seek medical attention.
<b>Ingestion</b>	Seek immediate medical attention. Give water to dilute. Do not induce vomiting unless directed by medical personnel. Advise medical personnel of possible fluoride exposure.
<b>Additional Information</b>	Not Available

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Product does not burn. Where fire is involved, use any fire fighting agent appropriate for surrounding material. Use water spray to cool fire-exposed surfaces.
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	Hydrofluoric acid and fluorine will form after decomposition of material at temperatures above 500°C.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	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. Avoid dust formation. Avoid breathing vapours, mist, gas or dust.
<b>Environmental Precautions</b>	Prevent material from entering sewers.
<b>Methods and Materials for Containment and Cleaning Up</b>	Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	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 contact with skin and eyes. Avoid formation of dust and aerosols. Never add water.
<b>Conditions for Safe Storage</b>	Ensure containers or packaging is closed during storage and well ventilated. Keep in a cool, dry place.
<b>Incompatibilities</b>	Strong acids, alkaline materials, iron containing materials, metals, mineral acids.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Fluoride	ACGIH	TLV-TWA	2.5mg/m <sup>3</sup>
	OSHA	PEL	2.5mg/m <sup>3</sup>

### Engineering Control(s)

<b>Ventilation Requirements</b>	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.
<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

<b>Eyes/Face</b>	Chemical goggles, full-face shield, or a full-face respirator should be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
<b>Hand Protection</b>	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
<b>Skin and Body Protection</b>	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.
<b>Respiratory Protection</b>	If exposures may exceed limits shown in Section 3, a NIOSH approved ½ face-piece respirator with approved cartridges should be worn. For concentrations greater than 20ppm, a NIOSH approved self-contained breathing apparatus with full-face shield should be used.
<b>Thermal Hazards</b>	Not Available

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## Section 09 - Physical and Chemical Properties

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### Appearance

<b>Physical State</b>	Powder
<b>Colour</b>	White granules
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not Applicable

## Property

<b>pH</b>	3.5-4.0 (saturated solution)
<b>Melting Point/Freezing Point</b>	Decomposes
<b>Initial Boiling Point and Boiling Range</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Available
<b>Flammability</b>	Non-Flammable
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Available
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	0.65g/100mL of water at 17°C. Insoluble in alcohol and ethanol.
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	500°C
<b>Viscosity</b>	Not Available
<b>Specific Gravity (Water=1)</b>	2.7
<b>% Volatiles by Volume</b>	Not volatile
<b>Formula</b>	Na <sub>2</sub> SiF <sub>6</sub>
<b>Molecular Weight</b>	188.0

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## **Section 10 - Stability and Reactivity**

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<b>Reactivity</b>	Reacts with acids liberating very toxic gas.
<b>Stability</b>	Product is stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	In presence of water, contact with metals may produce hydrogen with may form explosive mixtures with air.
<b>Conditions to Avoid</b>	Avoid dust generation, exposure to moisture, exposure to heat.
<b>Incompatible Materials</b>	Strong acids, alkaline materials, iron containing materials, metals, mineral acids.
<b>Hazardous Decomposition Products</b>	Hydrofluoric acid and fluorine

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## Section 11 - Toxicological Information

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### Acute Toxicity

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Sodium Silicofluoride	125 mg/kg (rat)	Not Available	Not Available

### Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Silicofluoride	Category 3: Not classifiable as to its carcinogenicity to humans.

<b>Skin Corrosion/Irritation</b>	Toxic in contact with skin. May cause mild skin irritation.
<b>Ingestion</b>	Toxic if swallowed. May cause abdominal pain, diarrhea, vomiting, excess salivation and spasms of limbs. May be fatal if large amounts are ingested.
<b>Inhalation</b>	Toxic if inhaled. May cause irritation of the mucous membranes and respiratory tract.
<b>Serious Eye Damage/Irritation</b>	Can cause eye irritation
<b>Respiratory or Skin Sensitization</b>	Not Available
<b>Germ Cell Mutagenicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>STOT-Single Exposure</b>	The substance may cause effects on the blood and calcium metabolism. This may result in cardiac disorders. May cause irritation of the mucous membranes and respiratory tract.
<b>STOT-Repeated Exposure</b>	The substance may have effects on the bones and teeth. This may result in fluorosis. Repeated exposure may aggravate pre-existing lung, central nervous system and kidney conditions.
<b>Aspiration Hazard</b>	Not Available
<b>Synergistic Materials</b>	Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Silicofluoride	Not Available	LC <sub>50</sub> (Lepomis macrochirus, 96hrs): 49 mg/L	Not Available
<b>Biodegradability</b>	Not Available		
<b>Bioaccumulation</b>	Not Available		
<b>Mobility</b>	Not Available		
<b>Other Adverse Effects</b>	Not Available		

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## Section 13 – Disposal Considerations

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

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## Section 14 – Transport Information

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UN Number	UN 2674	
UN Proper Shipping Name	SODIUM FLUOROSILICATE	
Transport Hazard Class(es)	6.1	
Packaging Group	III	
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	<u>Packing Group</u> III	<u>Limited Quantity Index</u> 5 Kg

### 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 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 SDS.

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## Section 15 – Regulatory Information

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**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.**

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## Section 16 – Other Information

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Preparation Date	August 13, 2015
Revision Date	November 14, 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<sup>®</sup> 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) CHRIS

- 6) HSDB
- 7) ECHA

## **ClearTech Industries Inc. - Locations**

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