

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: SODIUM FLUOROSILICATE****Page 1 of 4**

MSDS Date: July 6, 1999

Emergency Contact: 1-800-424-9300

SECTION I**PRODUCT NAME:** Sodium Fluorosilicate**CHEMICAL FAMILY:** Inorganic fluoride**FORMULA:** Na₂SiF₆**SYNONYMS:** Sodium silicofluoride, Sodium fluosilicate, Disodium hexafluosilicate**DOT SHIPPING INFORMATION:** Sodium Fluorosilicate 6.1
UN 2674 PG III**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Sodium Fluorosilicate	16893-85-9		TLV/PEL = 2.5 mg/m ³

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA**BOILING POINT (F):** Decomposes @ 500° C**SPECIFIC GRAVITY:** 2.679**VAPOR PRESSURE (mm Hg):** N/A**% VOLATILE, BY VOLUME:** N/A**VAPOR DENSITY (air = 1):** N/A**EVAPORATION RATE:** N/A**SOLUBILITY IN WATER:** 0.44% @0° C**APPEARANCE AND ODOR:** White, odorless granular crystalline material.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:** N/A**FLAMMABLE LIMITS:**

Lel: N/A Uel: N/A

EXTINGUISHING MEDIA:This chemical is not flammable, but for fires in area where this chemical is stored, foam, dry chemicals or CO₂ may be used.**SPECIAL FIRE-FIGHTING PROCEDURES:**

When product is heated to decomposition (above 500° C), it will generate highly toxic gases such as hydrogen fluoride.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Extreme temperatures, such as fires, will cause decomposition and formation of nitrogen oxides and fluorine. Firefighters should avoid all bodily contact, wear full protective clothing and self-contained



breathing apparatus.

SECTION V - REACTIVITY DATA

STABILITY:

Stable

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

Contact with strong acids and alkalis. Such contact will cause formation of hydrogen fluoride gas.

HAZARDOUS DECOMPOSITION PRODUCTS:

Temperatures above 500° C, such as fires, will cause decomposition and formation of nitrogen oxides, hydrofluoric acid and fluorine.

SECTION VI - HEALTH HAZARD DATA

NFPA HAZARDOUS RATING: Health = 2 Flammability = 0 Reactivity = 1

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Repeated or prolonged exposure to the skin may cause skin rash. Fluoride dust may cause irritation to eyes and respiratory tract.

Inhalation/

Ingestion: ACUTE: Swallowing fluoride dust may cause nausea, vomiting, abdominal pain or burning, diarrhea, shortness of breath, difficulty in speaking, thirst, weakness or pulse, disturbed color vision, muscular weakness, convulsions, loss of consciousness and death. Kidney injury and bleeding from injury may occur.
CHRONIC: Repeated exposure above the PEL or TLV to fluoride dust may cause excessive calcification of ligaments of the ribs, pelvis and spinal column. Sclerosis or changes of bones and ligaments can be seen by x-ray. Enzyme system effects and pulmonary fibrosis are reported. Stiffness and limitation of motion may result. Common findings are eye, skin, and mucous membrane irritation, loss of weight, anorexia, anemia, wasting, cachexia, and dental defects.

STATEMENT OF PRACTICAL TREATMENT:

Contact: SKIN: Immediately wash exposed area thoroughly with soap and water. Remove contaminated clothing and immediately wash with soap and water. Get immediate medical attention for all burns regardless of how minor they seem. EYES: Immediately flush eyes with large amounts of cool water for at least 15 minutes, lifting the upper and lower lids at periodic intervals. Get immediate medical attention.

Inhalation: If chemical dust is inhaled, remove person promptly to fresh air. If breathing has stopped, perform artificial respiration. Oxygen should be provided for a person having difficulty breathing (by authorized person only). Keep the affected person warm and at rest. Get immediate medical attention.

Ingestion: When chemical or solution containing the chemical has been swallowed and the person is conscious, have the person drink as much water as possible. **Do not** induce vomiting.



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Several glasses of milk may also be given for its soothing effect. Contact a physician immediately.

Note to physician: Exposed person should be observed for 48 - 72 hours for delayed onset of pulmonary edema.

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Store in a cool, dry place, away from acids. Use only with adequate ventilation, dust mask or self-contained breathing apparatus. Protective clothing should always be worn. Avoid contact with eyes, skin and clothing. Keep bag or container closed when not in use. Avoid breathing dust or mist.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Employees should be trained in safety procedures for handling this product. Evacuate all unnecessary personnel. Any personnel left in area should wear NIOSH-approved protective clothing and breathing apparatus. Stay upwind; keep out of low area. Ventilate closed spaces before entering them. Isolate product spill area. Carefully shovel material and place in clean, dry container and cover. Remove container from spill site and dispose of in accordance with local, state and federal regulations.

WASTE DISPOSAL METHOD:

Used or unused product should be tested to determine hazard status and comply with federal, state and local disposal or discharge laws.

OTHER PRECAUTIONS: Avoid contact with eyes, skin and clothing. Wash thoroughly with water after handling. Do not take internally. Do not breathe dust. Keep separated from strong acids and alkalis.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

A NIOSH-approved respirator should be worn. Self-contained breathing apparatus may be required when chemical is heated to decomposition or in a spill area.

VENTILATION:

Provide adequate general and/or local exhaust to maintain vapors below acceptable air level maximums.

EYE PROTECTION:

Splash-proof goggles should be worn when there is danger of splash from solution containing chemical. Protection against splash or mist from solution containing chemical with 8 inch minimum face shield is recommended. Eye protection should be worn in presence of dry chemical or solution containing chemical at all times.

SKIN PROTECTION:

Impervious gloves should be worn. Protective impervious clothing should be worn .

OTHER PROTECTIVE EQUIPMENT:

As necessary to protect open wounds. Heating to decomposition requires full protective clothing and self-contained breathing apparatus.



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ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.