

MATERIAL SAFETY DATA SHEET

SODIUM FLUOROSILICATE

Section 1. Product and Company Identification

Product Name Sodium Fluorosilicate
CAS Number 16893-85-9

Section 2. Hazards Identification

Classification of the substance or mixture

Acute Tox. 3 (Oral) H301
Eye Irrit. 2A H319
STOT SE 2 H371
STOT RE 1 H372

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard Statement(s)

H301- Toxic if swallowed
H319- Causes serious eye irritation
H371- May cause damage to organs (heart)
H372- Causes damage to organs (dental/bone fluorosis) through prolonged or repeated exposure

Precautionary Statement(s)

P260- Do not breathe dust
P264- Wash hands, forearms, and exposed areas thoroughly after handling
P270- Do not eat, drink or smoke when using this product
P280- Wear protective gloves, eye protection, protective clothing
P301+310- IF SWALLOWED: Immediately call a POISON CENTER or doctor
P305+351+338- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P314- Get medical advice and attention if you feel unwell
P330- If swallowed, rinse mouth
P337+P313- If eye irritation persists: Get medical advice/attention
P405- Store locked up
P501- Dispose of contents/container according to local, regional, national, and international regulations

Other Hazards

No additional information available

Section 3. Composition / Information on Ingredients

Common Name Sodium Fluorosilicate
Synonym(s) Sodium silicofluoride; Sodium Hexafluorosilicate
Formula Na₂[SiF₆]
CAS Number 16893-85-9

COMPONENT	CAS NUMBER	CONCENTRATION
Sodium Fluorosilicate	16893-85-9	>= 98%

Section 4. First Aid Measures

Inhalation: Remove exposed person to fresh air. If breathing is difficult, oxygen may be administered. If breathing has stopped, artificial Respiration should be started immediately. Seek medical attention.

Eyes: Flush with tepid water for at least 20 minutes holding the eyelids wide open. Seek medical attention.

Skin: Wash thoroughly with mild soap and water. Seek medical attention if irritation or chemical burns develop. Remove any contaminated clothing and lauder thoroughly before reuse.

Ingestion: Give water to drink. Induce vomiting. If swallowed, seek medical attention immediately and show this container or label.

Section 5. Firefighting Measures

Extinguishing Media: Small: Dry chemical, carbon dioxide, water spray or foam. Large: Water spray, fog or alcohol foam.

Special Fire Fighting Procedures: Non-flammable. Negligible fire hazard when exposed to heat or flame. Move containers from fire area if it can be done without risk. Do not scatter material. Use water spray to reduce vapors.

Fire and Explosion Hazards: None reported.

Hazardous Combustion Products: Thermal decomposition may release Fluoride and sodium oxides.

Protective Measure in Fire: Avoid contact; toxic waste. Fight fire from a safe distance. Prevent runoff from entering natural waterways. Stay upwind and restrict access to area.

Section 6. Accidental Release Measures

Personal Precaution in Spill: DO NOT TOUCH MATERIAL. Wear personal protective equipment as outlined in Section 8.

Environment: Dike larger spills for later disposal. Restrict access to spill area.

Spill Clean Up: Damp mop any residue.

Section 7. Handling and Storage

Usage Precautions: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage Precautions: Store in dry, cool, well-ventilated area. Keep away from food, drink, and animal feeding stuffs.

Handling Precautions: Do not breathe dust. Avoid all contact with this substance. Wash hands and other exposed areas plentifully with water after handling. Remove contaminated clothing and shoes. Wash clothing before re- using. Packages, even those that have been emptied, will retain product residue. Always obey safety warning and handle empty packages as if they were full.

Section 8. Exposure Controls / Personal Protection

Protective Equipment: Use adequate ventilation to meet exposure limits. Where exposure limits may be exceeded use OSHA approved dust mask.

Process Conditions:

Exposure Limits: 2.5 mg/m³ TLV. 2.5 mg/m³ OSHA PEL.

Respirators: Use approved dust mask if dust are generated when handling this material. If exposures may exceed the limits, as a minimum, use a NIOSH approved ½ face-piece respirator with cartridges approved for acid gases, hydrogen fluoride.

Protective Gloves: Polymeric protective gloves are recommended to prevent possible irritation.

Eye Protection: Chemical protective goggles and full-face shield are recommended where there is the possibility of eye contact with the product.

Skin Protection: PVC, neoprene, or similar materials are recommended. Polymeric coated apron or other body covering is recommended where regular work clothing may become contaminated with the product.

Other Protection: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hygienic Work Practices: Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9. Physical and Chemical Properties

Appearance (physical state, color, etc.): White Powder

Odor: None

Odor Threshold: No data available

pH: 3.5-4.0 (Saturated Solution)

Melting Point/freezing point: Decomposes at 932 degrees F (500 degrees C)

Initial boiling Point and boiling range: No data available

Flash Point: N/A

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Density (Air =1): N/A

Vapor Pressure: N/A

Relative density: No data available

% Solubility (H₂O): 0.65g/100g at 63 degrees F.

Octanol/Water Partition Coefficient: N/A

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Specific Gravity/Bulk Density: 85/90 lb/ft³

Section 10. Stability and Reactivity

Stability & Polymerization: Product is stable. Hazardous polymerization will not occur.

Hazardous Decomposition Products: Temperatures above 500°C, such as fires, will cause decomposition and formation of Hydrofluoric Acid and Fluorine.

Conditions to Avoid: Excessive dust generation.

Special Sensitivity: None that are known.

Section 11. Toxicological Information

Toxic Dose LD 50: The acute lethal oral toxicity for rats is approximately 125 mg per kilogram of body weight. This is equivalent to approximately 6.5 grams for the average human.

Toxicological Info: No information found.

Section 12. Ecological Information

No data available

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT Proper Shipping Name: Sodium Fluorosilicate

Hazard Class: 6.1

UN Number: UN2674

Packing Group: PGIII

IATA/IMDG Regulations

Proper Shipping Name: Sodium Fluorosilicate

Hazard Class: 6.1

UN Number: UN2674

Packing Group: PGIII

IMDG EMS: F-A, S-A

Section 15. Regulatory Information

SARA Title III Information: Not Listed. No RQ

Federal Regulatory Information:

RCRA Status of unused material is discarded: Not Listed.

Hazardous Waste Number: Not listed.

Waste Disposal Method: Disposer must comply with Federal, State, and Local Disposal and Discharge Laws.

EPA Hazardous Substance: NO.

Toxic Substances control act inventory of substances (TSCA): Yes, Listed.

State Regulatory Information: New Jersey "Right to Know" Laws: Listed.

Full text of H-phrases:

Acute Tox. 3 (Oral) Acute toxicity (oral) Category 3

Eye Irrit. 2A Serious eye damage/eye irritation. Category 2A

STOT RE 1 Specific target organ toxicity (repeated exposure) Category 1

STOT SE 2 Specific target organ toxicity (single exposure) Category 2

STOR SE 3 Specific target organ toxicity (single exposure) Category 3

H301 Toxic if swallowed

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H371 May cause damage to organs

H372 Caused damage to organs through prolonged or repeated exposure

Section 16. Other Information

Disclaimer: 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.