

PRODUCT SAFETY DATA SHEET
GHS COMPLIANT
Fluorosilicic Acid, NSF 23-25%

Section 1 – Product and Company Information

GHS Product Identification

Product Name: Fluorosilicic Acid, NSF 23-25%

Other Identification Information

CAS Number: 16961-83-4

Florida Chemical ID: 2AC018N250S.000

Chemical Formula: 2SiF_6

Synonyms: Silicate (2-) Hexafluoro-dehydrogen; Hydrofluorosilicic Acid; Fluosilicic Acid; HFS; FSA; Hexafluorosilicic Acid

Recommended Use and Restrictions on Use

Description and Uses: Water treatment; Industrial use; chemical manufacture. **Not For:** Consumer Use

Supplier Information

Distributed By: Florida Chemical Supply, Inc
6810 East Chelsea Street
Tampa, FL 33610

Phone (Non Emergency) 813.623.1274

Emergency Phone Number

24 Hour Emergency Phone: 800.255.3924 (Chemtel)



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Section 2 – Hazard Information

Classification of the Substance or Mixture

Acute Toxicity - Oral 4
Acute Toxicity - Inhalation 4
Corrosive to Skin 1A
Corrosive to Eyes 1

GHS Label Elements

GHS Pictogram:



Signal Word:

DANGER

Hazard Statements:

H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H332: Harmful if inhaled

Precautionary Statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+351+338: 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 if you feel



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unwell.

P312: Call a POISON CENTER/doctor/or other competent medical authority if you feel unwell.

P363: Wash contaminated clothing before reuse

Other Hazards Not Resulting In Classification

HMIS:

Health	3
Flammability	0
Reactivity	0
Personal Protection	X

Special Medical Response:

Section 3 – Hazardous Composition

Component	CAS #	Wt. %
Fluorosilicic Acid	16961-83-4	24%
Fluorides (as F)	Mixture	19%

Section 4 – First Aid Information

Necessary First Aid Measures

Skin Exposure: Remove/Take off immediately all contaminated clothing. Rinse immediately with plenty of water for 15 minutes. Seek medical attention immediately if exposure is severe. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Eye Exposure: Immediately rinse with water for a prolonged period (at least 15 minutes). Hold eyelids wide open. Seek immediate medical attention.

Inhalation Exposure: Move victim to fresh air. Keep at rest and in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Seek immediate medical advice. Symptoms may be delayed.



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Ingestion: If swallowed do not induce vomiting. Seek medical advice immediately and show this container or label.

Most Important Symptoms Acute and Delayed

Acute Effects: Corrosive to skin, eyes, and soft tissues. Harmful if swallowed or inhaled. Contact may cause immediate severe irritation to skin and eyes, progressing quickly to chemical burns. May cause blindness. May cause burns or irritation to the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity results in a serious health hazard.

Delayed Effects: Respiratory symptoms may be delayed, including burning of nose and throat, constriction of airway, difficulty breathing, shortness of breath, bronchial spasms, chest pain and pink, frothy sputum. Repeated or prolonged contact may damage lungs. Prolonged and repeated contact will eventually cause permanent tissue damage. Repeated and prolonged exposure to fluorine containing compounds may cause fluorosis, a condition characterized by changes in bone density and strength, accompanied by stiffness and pain in joints.

Immediate Medical Attention or Special Treatment Requirements

NOTE TO PHYSICIAN: Corrosivity to soft tissue and mucous membranes likely contraindicates the use of gastric lavage.

SECTION 5 – Firefighting Precautions

Suitable Extinguishing Media:

Appropriate to surrounding fire. Do not allow water to enter into containers. Do not apply water stream directly at source of leak,. Do not use a heavy water stream. A direct water stream will cause violent splattering and generation of heat.

Specific Fire Hazards Arising from the Chemical:

Not flammable however under fire conditions this material may produce silicon oxides, hydrogen fluoride, tetrafluorosilane. Product decomposes above 108 C (227 F)

Special Protective Measures for Firefighters



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PPE for Firefighter: As in any fire, self contained breathing apparatus in pressure demand, MSHA/NIOSH approved respirator and full protective gear.

Personal Precautions: See section 8

PPE Requirements: As in any fire, self contained breathing apparatus in pressure demand, MSHA/NIOSH approved respirator and full protective gear.

Precautionary Measures: Evacuate non emergency personnel to a spot upwind of fire. Fight fire from upwind. Do not allow runoff from fire fighting to enter into drains or water courses.

SECTION 6 – Accidental Release Measures

For Non-Emergency Personnel

All untrained, non-essential, and non-responding personnel should be evacuated from the immediate area of the spill without delay. If Personal Protective Equipment is necessary to achieve evacuation safely, see Section 8 for requirements.

For Emergency / Response Personnel

Protective Equipment: See section 8

Environmental Precautions: Keep contained. Do not allow release to the environment.

Methods and Materials for Cleanup

Contain spills with dikes or inert absorbents to prevent migration and entry into sewers or streams. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

Small Spills: Take up in non-combustible inert absorbent material and shovel into container for disposal. Collect absorbed material and place into a sealed, labeled container to be disposed of at an appropriate disposal facility according to applicable laws and regulations.

Large spill: Dike as indicated above. Keep area ventilated.

Neutralize with powdered limestone or sodium bicarbonate.



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SECTION 7 – Handling and Storage

Precautions for Safe Handling

Avoid all eye and skin contact and do not breathe vapors or mists. Wear recommended personal protective equipment. Ensure there is adequate ventilation. Keep away from heat and open flame. Employ good maintenance practices to prevent leaks. Use good process control measures.

Conditions for Safe Storage, Including Incompatibilities

Storage: Store in a cool dry area. Store in a well-ventilated place away from heat and sources of ignition. Large tanks should be bermed and electrically grounded. Keep away from combustible materials. Avoid using glass, metal or stoneware containers.

Incompatible Materials: Reacts with many metals to produce flammable and explosive hydrogen gas.

Incompatible Conditions: Keep away from strong acids, and bases; chlorites; organic peroxides; combustible materials and metals.

SECTION 8 – Exposure Controls and Personal Protection

Control Parameters

Exposure Limits: ACGIH, TWA: 2.5 mg/m³
OSHA, TWA: 2.5 mg/m³
NIOSH, TWA: 2.5 mg/m³

Appropriate Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Individual Protection Measures

Gloves: Nitrile, neoprene or pvc. Wear gauntlet gloves. Check manufacturer's documentation for suitability.

Respiratory: NIOSH approved respirator. Seek advice of a respirator specialist to determine appropriate cartridge. Full face respirator preferred.

Eyes: Chemical safety goggles with Face Shield. Do not wear contact lenses when handling this product.



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Other Protection: Chemical resistant coveralls, and other protective coverings to prevent contact with skin. Chemical resistant boots.

Industrial Hygiene: Do not eat, drink or smoke in areas where this product is handled. After handling, be sure to wash hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing before re-use.

SECTION 9 – Physical Properties

Appearance:	Clear, colorless liquid	Vapor Pressure:	24 mmHg @ 20 C
Odor:	Pungent	Vapor Density:	No available data.
Odor Threshold:	No available data.	Relative Density:	1.230
pH:	1.00	Solubility:	Miscible in all proportions in water
Melt/Freeze Point:	No available data	Partition Coefficient (n-octanol/water):	No available data.
Boiling Point/Range:	105 C / 221 F	Auto Ignition Temp:	No available data.
Flash Point:	No available data	Decomposition Temp:	No available data.
Evaporation Rate:	Clear, colorless liquid	Viscosity:	No available data.
Flammability (solid/gas):	Not flammable		
UEL/LEL:	Product is not considered to be flammable		

SECTION 10 – Stability and Reactivity

Reactivity: May react violently with water.

Stability: Product is chemically stable under normal conditions of handling and storage.

Conditions to Avoid: Temperatures above 108 C (227F)

Incompatible Materials: Strong acids, strong bases, chlorites, organic peroxides, combustible materials and metals. Attacks glass and stoneware.

Decomposition Products: Thermal decomposition generates: Silicon oxides. Hydrogen fluoride. Tetrafluorosilane.

Hazardous Polymerization: Will not occur.



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SECTION 11 – Toxicological Information

Acute Toxicity:	Severe skin burns and eye damage
Chronic:	Severe respiratory damage due to prolonged exposure.
Eyes:	No available data.
Skin:	No data
Sensitization:	Not a known sensitizer
Mutagenicity:	No evidence for mutagenicity.
Carcinogenicity:	This product does not contain any ingredients which have been classified as a carcinogen by NTP, IARC or OSHA.
Reproductive Toxicity:	No known reproductive toxicity
Target Organs:	Eyes, skin, lungs
Aspiration Hazard:	No data available.

SECTION 12 – Ecological Toxicity

No available data.

SECTION 13 – Disposal Considerations

This material is hazardous to the aquatic environment. Keep out of sewers and waterways. Place in appropriate containers for disposal at a licensed site. dispose of waste material only in accordance with all local, regional, national and international regulations.



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SECTION 14 – Transportation Information

UN Number: UN1778
Proper Shipping Name: Fluorosilicic Acid
Packing Group: II
Hazard Class: 8
Subsidiary Hazards: None

Required DOT Label/s: UN1778, Fluorosilicic acid, 8-Corrosive, PGII

SECTION 15 – Regulatory Information

TSCA: This product and/or all of its components are listed on the Section 8(b) TSCA Inventory.

SARA Tier 2 Components: FLUOROSILICIC ACID, 23%

State Right to Know Regulations::
Massachusetts, New Jersey, Texas

SECTION 16 – Other Information

Date Prepared: 7/14/2015
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Prepared By: Florida Chemical Regulatory Department
Approved By: Marc Maseman

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