



Safety Data Sheet

FLUOSILICIC ACID 20% – 40%

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
Product Name	Fluosilicic acid	
Product Codes	831 001	
CAS#	16961-83-4	
RTECS	VV8225000	
TSCA	TSCA 8(b) inventory: Fluosilicic acid	
Synonym	Hydrogen hexafluorosilicate, Hydrofluorosilicic Acid,	
Chemical Name	Not available.	
Chemical Formula	H ₂ SiF ₆	
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SECTION 2 : HAZARDS IDENTIFICATION	
GHS - Classification	
Acute toxicity - Oral	Category 3
Skin corrosion/irritation	Category 1 Category 1B
Serious eye damage/eye irritation	Category 1
Chronic aquatic toxicity	Category 3
 	
Signal Word:	Danger



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**Hazard Statements:**

- Toxic if swallowed
- Causes severe skin burns and eye damage
- Harmful to aquatic life with long lasting effects

Physical Hazards

Corrosive to metals

Category 1

- May be corrosive to metals

Precautionary Statements:

- P270 - Do not eat, drink or smoke when using this product
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P330 - Rinse mouth
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P301 + P330 + P331 - 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
- P363 - Wash contaminated clothing before reuse
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P405 - Store locked up
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- 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
- P273 - Avoid release to the environment
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P334 - Immerse in cool water/wrap in wet bandages
- P390 - Absorb spillage to prevent material damage
- P406 - Store in corrosive resistant aluminum container with a resistant inline

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS**Composition:**

Name	CAS #	% By weight
Fluosilicic acid	16961-83-4	20% - 40%

Toxicological Data on Ingredients: Fluosilicic acid LD50: Not available. LC50: Not available.



SECTION 4 : FIRST AID MEASURES

Ingestion: If conscious, give the exposed person large quantities of water. Administer calcium gluconate solution or milk. Seek immediate medical attention.

Eye Contact: Immediately irrigate with copious amounts of water, while holding eyelids open for at least 15 minutes. Seek immediate medical attention.

Skin: Wash affected area with copious amounts of water for at least 15 minutes. Apply calcium gluconate gel to the affected area, rub in until locally free of pain and then continue for a further 15 minutes. Apply a dressing soaked in 20% (m/m) calcium gluconate solution. Seek immediate medical attention.

Inhalation: Remove affected person from exposure to a well ventilated area. Keep warm and at rest. Administer orally six effervescent calcium pills (400 mg calcium per pill) dissolved in water. Seek immediate medical attention.

Further Medical Advice:

Following severe exposure the patient should be kept under medical attention for 48 hours as delayed pulmonary oedema may develop.

SECTION 5 : FIRE-FIGHTINGS MEASURES

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.



SECTION 6 : ACCIDENTAL RELEASE MEASURES

Small Spillage : Wash away with large quantities of water.

Large Spillage : If fumes are evolved wear respiratory protection. Bund large spillages with sand, earth etc. and pump away, neutralise with soda ash then dilute with water (spray) and flush away with large amounts of water after neutralisation. Inform the local water authority if product has entered public drains or waterways.

Personal Precautions : Wear full protective clothing.

Neutralising Chemicals : Hydrated Lime or Soda Ash.

SECTION 7 : HANDLING AND STORAGE

Handling:

Do not inhale fumes and prevent skin contact. If pungent, irritating odour can be detected, over-exposure is occurring. Eye wash and safety shower should be available in all acid handling areas. Avoid contact with incompatible materials.

Storage:

Store in a cool, dry, well ventilated area away from sources of ignition. Do not store in glass or stoneware. Bulk quantities should be stored in plastic (uPVC, Polypropylene or Polythene) or rubber - lined tanks. Tanks should be vented and fitted with an overflow pipe. Tanks should be banded to contain spillage. For smaller packages double skinned HDPE plastic containers are acceptable.

Ventilation:

Provide adequate and/or local ventilation to maintain vapours below 2.5 mg/m³ (as F).

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	Liquid. (Fuming liquid.)
Odor	Pungent.
Taste	Not available.
Molecular Weight	144.08 g/mole
Color	Colorless to light yellow.
pH (1% soln/water)	Not available.
Boiling Point	Decomposes.
Critical Temperature	Not available.
Specific Gravity	1.18 – 1.22
Vapor Pressure	218 mm of Hg (@ 20°C)
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water.
Solubility	Easily soluble in cold water.

SECTION 10 : STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

SECTION 11 : TOXICOLOGICAL INFORMATION

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available.

LC50: Not available.

Chronic Effects on Humans: The substance is toxic to lungs, mucous membranes.

Other Toxic Effects on Humans:

Extremely hazardous in case of skin contact (corrosive, irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products:

Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging:

Do not reuse container.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: CLASS 8: Corrosive liquid.

Identification: : Fluorosilicic acid : UN1778 PG: II

Special Provisions for Transport: Not available.

ICAO/IATA Class 8,II

IMDG Class 8,II

ADR/RID Class 8

ADR/RID Item 9b



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SECTION 15 : REGULATORY INFORMATION

Federal and State Regulations:

Massachusetts RTK: Fluosilicic acid

TSCA 8(b) inventory: Fluosilicic acid

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):

CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

CLASS E: Corrosive liquid.

DSCL (EEC): R35- Causes severe burns.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection:

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.

Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.



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SECTION 16 : OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available

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Disclaimer:

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