



HYDROFLUOSILICIC ACID MATERIAL SAFETY DATA SHEET

Section 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Section 2. IDENTIFICATION

PRODUCT NAME:	Hydrofluorosilicic acid,	REVISION DATE: None
CHEMICAL NAME:	Hydrofluorosilicic Acid	FORMULA: H ₂ SiF ₆
SYNONYMS:	Fluorosilicic acid	PACKING GROUP: II
D.O.T. HAZARD CLASS:	Corrosive, 8	UN NO. 1778 CAS NO. 16961-83-4
D.O.T. SHIPPING NAME:	Fluorosilicic acid	

Section 3. PHYSICAL DATA

PHYSICAL STATE: Colorless to yellow liquid with pungent, sour odor.	SPECIFIC GRAVITY AT 60°F: 1.22	pH: 1.2
BOILING POINT, °F: 225° F (107° C)	SOLUBILITY IN WATER: Soluble	
FREEZING POINT, °F: -4.0	VOLATILES VOLUME %: Not established.	
VAPOR PRESSURE, mm Hg AT 167°F: 218	EVAPORATION RATE: Not established.	

Section 4. HAZARDOUS COMPONENTS GREATER THAN 1%

MATERIAL	OSHA PEL	ACGIH TLV	CAS.NO.	%
Hydrofluosilicic acid	2.5 mg/m ³ as F	2.5 mg/m ³ as F	16961-83-4	23-25
CARCINOGENICITY:	Not considered carcinogenic by IARC, NTP or OSHA.			

Section 5. FIRE AND EXPLOSIVE HAZARD DATA

FLASH POINT:	None.
NORMAL EXTINGUISHING AGENT:	Use agent, which is appropriate for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Cool containers with water spray. Dry chemicals and carbon dioxide. Self contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Reacts with many metals giving off highly flammable hydrogen gas, which may form explosive mixtures with air.

Section 6. REACTIVITY DATA

STABILITY: Stable	CONDITIONS TO AVOID: Temperatures above 227°F.
INCOMPATIBILITY (materials to avoid):	Combustible solids, organic peroxides, metal, glass, stoneware, alkali and strong concentrated acids.
HAZARDOUS COMBUSTION / DECOMPOSITION PRODUCTS:	Hydrogen fluoride and sodium tetrafluoride on heating. Hydrogen on contact with metals may form explosive mixtures with air..



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Section 7. HEALTH HAZARD DATA

ACUTE EFFECTS OF EXPOSURE	
INGESTION:	Vomiting, diarrhea, thirst, cyanosis and those symptoms reported for inhalation can occur.
SKIN CONTACT:	Severe irritation, dermatitis and burns can occur.
INHALATION:	Exposure may lead to severe irritation, corrosion and congestion of the respiratory tract. Bronchospasm, pulmonary edema, anorexia, nausea, vomiting, constipation, weight loss, weakness, shortness of breath and stiffness of joints may occur.
EYE CONTACT:	Severe irritation, burns and keratonconjunctivitis can occur.
CHRONIC EFFECTS OF EXPOSURE:	No specific information.
OTHER HEALTH DATA:	No specific information.

EMERGENCY AND FIRST AID PROCEDURES	
INGESTION:	DO NOT INDUCE VOMITING! Give large quantities of water to dilute acid. Never give anything by mouth to an unconscious person. Get medical help immediately.
EYES :	Immediately flush eyes (holding eyelids apart) with plenty of water for at least 15 minutes and get medical attention immediately.
INHALATION:	Remove to fresh air. Give artificial respiration only if breathing has stopped. Administer oxygen until victim breathes easily. Get immediate medical attention.
SKIN:	Flush exposed area with water for at least 15 minutes. Under running water, remove contaminated clothing and shoes. If irritation persists, repeat flushing. Get immediate medical attention. Completely decontaminate clothing and shoes before re-use.

Section 8. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:	Dike the area to prevent material from entering waterway and dilute the acid to reduce fumes. Neutralize with hydrated lime. Ventilate the area and be wary of hydrogen generation upon reaction with some metals.
WASTE DISPOSAL METHOD:	Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations.

Section 9. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Approved NIOSH/MSHA respirator.		
PROTECTIVE GLOVES:	Acid proof	EYE PROTECTION:	Chemical safety goggles.
VENTILATION:	Well-ventilated area.	SPECIAL EQUIPMENT:	Acid proof clothing, face shield, boots, eyewash fountain, and safety shower.

Section 10. SPECIAL PRECAUTIONS

HANDLING AND STORAGE:	Store in cool, dry, ventilated area. Do not store in metal, glass or stoneware. Protect container from physical damage.
OTHER:	None known.



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