



Material Safety Data Sheet

Hydrofluoric Acid, >60%

Part Number: 01A032

Hukill Chemical Corporation

7013 Krick Road

Bedford, OH 44146-4493

Section I: Chemical Product & Company Identification

Manufacturer	Hukill Chemical Corporation 7013 Krick Road Bedford, OH 44146-4493	Emergency Telephone Number	(800) 962-1143	
		Chemtrec's Telephone Number	(800) 424-9300	
		Prepared By	bcj	
Telephone Number	(440) 232-9400	Date Prepared	September 6, 2002	
Fax Number	(440) 232-9477	HMIS	Health	3
Web Site	http://www.hukill.com		Flammability	0
Email	hukill@hukill.com		Reactivity	1
Synonyms				

Section II: Composition/Information On Ingredients

Hazardous Components	Reportable Under SARA Section 313	CAS Number	OSHA Limits (ppm)			ACGIH TLV (ppm)	%
			PEL	STEL	Ceiling		
Hydrogen fluoride (as F)	Yes	7664-39-3	3	--	6	3	>60
<i>* mg/m³ instead of ppm.</i>							

Section III: Hazardous Identification

Emergency Overview:							
Danger! Causes eye & skin burns. Causes severe respiratory irritation. Harmful if swallowed.							
Route(s) of Entry	Inhalation?	Yes	Skin?	Yes	Ingestion?	Yes	
Health Hazards (Acute and Chronic)							
Eye contact causes burns or severe irritation with corneal damage. Skin contact causes burns or severe irritation with permanent damage. Breathing causes severe mucous membrane and respiratory irritation with possible lung damage (pulmonary edema). Swallowing causes severe mucous membrane and gastrointestinal burns with shock, collapse and death. Large or multiple burns may also cause hypocalcemia (depletion of calcium in the body) and other toxic effects which may be fatal.							
Signs and Symptoms of Exposure							
Burned or affected areas may not be immediately painful or visible. HF will penetrate skin and attack underlying tissues and bone. Affected tissue may become blanched and bloodless. Gangrene of the affected areas may follow. Symptoms may be corneal burns, pain behind the breastbone, cough, spitting blood, difficulty breathing, shock, muscle spasms, convulsions, death may result.							
Carcinogenicity	NTP	No	IARC Monographs	No	OSHA Regulated?	No	
Comments	None.						



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Section IV: First Aid

Eye Contact	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention, preferably an eye specialist.
Skin Contact	Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Calcium gluconate gel (2.5%) should be rubbed in continuously until pain has completely subsided. Personnel who apply the gel should wear rubber gloves to prevent skin contamination with hydrofluoric acid.
Inhalation	Remove exposed person from source of exposure to fresh air. If not breathing, ensure clear airway and institute cardiopulmonary resuscitation. If breathing is difficult, administer oxygen if available. Keep affected person warm and at rest. Get immediate medical attention.
Ingestion	Immediately call a local physician, a local emergency room or a poison control center. Do not give anything by mouth if victim is semi-conscious or unconscious. If victim is conscious, give 1-3 glasses of water or milk.

Section V: Fire Fighting Measures

Flash Point (method used)	Flammable Limits	LEL	UEL
none		N/A	N/A
Extinguishing Media	Use extinguishing agent suitable for type of surrounding fire. Material itself burns with difficulty.		
Special Fire Fighting Procedures			
Exposed firefighters must wear NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.			
Unusual Fire and Explosion Hazards			
Material can generate explosive hydrogen gas on contact with certain metals and reacts violently with water. Considerable heat is generated when contacted with many substances. Pressure explosion may happen from heating of closed containers.			

Section VI: Accidental Release Measures

Steps to Be Taken in Case Material is Released or Spilled
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Contain spill in order to prevent contamination of waterways. Flush with water in accordance with applicable regulations to waste treatment system. Avoid runoff into storm sewers and ditches which lead to waterways. If water pollution occurs, notify the appropriate authorities.
Waste Disposal Method
Dispose of in accordance with Federal, State and Local Laws.

Section VII: Handling And Storage

Precautions to Be Taken in Handling and Storing
Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Remove contaminated clothing and clean before re-use. Never handle when working alone.
Other Precautions
Store in approved containers only. Flammable hydrogen gas can be generated in metal storage containers. Diking of storage tanks is recommended. Carbon steel in HF service may be subject to indiscriminate hydrogen blistering and possibly other hydrogen related damage and should, therefore, be routinely inspected and repaired if needed.



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Section VIII: Exposure Controls, Personal Protection

Respiratory Protection (Specify)	Where required, use a respirator approved by NIOSH for HF gas or mists. Some exposure may require air-supplied respirators.		
Ventilation	Local Exhaust	Sufficient to keep ambient concentrations below exposure limits.	
	Mechanical (General)	General or local.	
	Special	None	Other
Protective Gloves	Use Acid/HF resistant gloves		
Eye Protection	Goggles and a full face shield should be worn.		
Other Protective Clothing or Equipment			
Where handling HF, a fully chemically resistant acid suit with hood and boots are recommended.			
Work/Hygienic Practices			
Do not wear contact lenses. If clothing is contaminated, get clean clothing immediately. Always wash hands after handling and before eating, smoking, or using the toilet.			

Section IX: Physical And Chemical Properties

Boiling Point	150-200F	Specific Gravity (H2O = 1)	>1.25
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (Air = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	<1
Solubility In Water	Complete		
Appearance and Odor	State	Liquid	
Colorless liquid. Sharp pungent odor.			

Section X: Stability And Reactivity

Stability	Conditions to Avoid	Reacts exothermically with water.
Stable		
Incompatibility (Material to Avoid)	Water. Glass, concrete and other silicon-bearing materials yield silicon tetrafluoride gas.	
Hazardous Decomposition of Byproducts	Fluorides and Hydrogen Gas on contact with certain metals. These fumes can be highly corrosive.	
Hazardous Polymerization	Conditions to Avoid	None.
Will not occur		

DOT Shipping Name: Hydrofluoric Acid, >60% Solution

Hazard Class: 8

UN Number: UN1790

PGI

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