



COLUMBUS CHEMICAL INDUSTRIES INC.

P.O. BOX 8
COLUMBUS, WISCONSIN 53925-0008
(920) 623-2140
FAX (920) 623-2577

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Hydrofluoric Acid, 52% Solution

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code

Columbus Chemical Industries

N4335 Temkin Road

Columbus, WI 53925-0008

Emergency Telephone Number

CHEMTREC 1-800-424-9300

Telephone Number for Information

920-623-2140

Date Prepared

06-30-2006

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Table with 6 columns: Hazardous Components, CAS #, OSHA PEL, ACGIH TLV, Other Limits Recommended, % (optional). Includes Hydrofluoric Acid 70% with CAS # 7664-39-3, OSHA PEL 3 ppm, ACGIH TLV 2.5mg/m³(3ppm), TLV: 3 ppm, STEL: 3 ppm. Synonyms: Hydrogen Fluoride, Fluorohydric acid. Chemical Family: Inorganic acid. Formula: HF. Description: Acid. OSHA Hazard Classification: Corrosive, Skin and Eye Hazard Lung Toxin.

\*This product subject to SARA section 313 reporting requirements.

\*EPA TSCA Section 8(B) Chemical Inventory.

Section III - Physical/Chemical Characteristics

Table with 4 columns: Property, Value, Property, Value. Boiling Point: 105°C(221°F), Specific Gravity (H2O = 1): 1.1913. Vapor Pressure (mm Hg): 10 @ 20 °C, Melting Point: -35°C(-31°F). Vapor Density (AIR = 1): 0.7, Evaporation Rate (Butyl Acetate = 1): Not Available.

Solubility in Water

Complete.

Appearance and Odor

Colorless fluid which fumes in air, has a sharp irritating odor.

Section IV Fire and Explosion Hazard Data

Table with 4 columns: Property, Flammable Limits, LEL, UEL. Flash Point (Method Used): Noncombustible, Flammable Limits: Not Applicable, LEL: Not Applicable, UEL: Not Applicable.

Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Special Fire Fighting Procedures

In the event of a fire, wear full protective clothing and NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Contact with reactive metals may result in the generation of flammable hydrogen gas. Pressurized containers may explode.

**Section V Reactivity Data**

Stability	Unstable		Conditions to Avoid	HEAT
	Stable	X		

**Incompatibility Materials to Avoid**

Acids, alkalis, amines, 2-aminoethanol, chlorosulfuric acid, glass, metals, Nitrogen compounds, oleum, silicates.

**Hazardous Decomposition or Byproducts**

Will yield Hydrogen gas from contact with metals; silicon tetrafluoride from reaction with silica or glass. Fluorine.

**Hazardous Polymerization****Conditions to Avoid**

	May Occur		
	Will Not Occur	X	Not Applicable

**Section VI Health Hazard Data**

<b>Routes of Entry</b>	<b>Inhalation ?</b>	<b>Skin ?</b>	<b>Ingestion ?</b>
Multiple	Yes	Yes	Yes

**Health Hazards (Acute and Chronic)**

Both liquid and vapor can cause severe burns which may not be immediately visible or painful. HF will penetrate skin and attack underlying tissues and bone. Large burns may cause hypocalcemia which in rare instances has been fatal.

<b>Carcinogenicity</b>	<b>NTP</b>	<b>IARC Monographs</b>	<b>OSHA REGULATED?</b>
	Not Listed	Not Listed	Not Listed

**Signs and Symptoms of Exposure.**

Conjunctivitis, corneal burns, severe skin burns / ulceration, chest pain, spitting blood, dyspnea, SOB, Bronchopneumonia,

Cyanosis, Shock, Muscle Spasm, Convulsions, Hematuria, Jaundice, Abdominal pain, Nausea, Vomiting, Diarrhea.

**Medical Conditions Generally Aggravated by Exposure**

Asthma, Emphysema, other Respiratory diseases.

**Emergency and First Aid Procedures** Transport to emergency facility. Eyes /Skin: immediately flush with water for a minimum of 15 minutes followed by application of calcium gluconate gel /solution. Inhalation: remove to fresh air. Give artificial respiration if breathing has stopped. Ingestion: do **NOT** induce vomiting. Give large amounts of water. if conscious. Transport to emergency facility.

**Section VII Precautions for Safe Handling and Use****Steps to be Taken in Case Material is Released or Spilled**

Evacuate unprotected personnel from area. Maintain adequate ventilation. Use proper safety equipment. Contain spill with soda ash or lime. Keep non-neutralized material from sewers, storm drains, soil, surface water, and water supply. Containerize for proper disposal. Wear suitable personal protective equipment.

**Waste Disposal Method** Dispose of spillage, empty containers, and other materials used for clean up in accordance with all federal, state, and local regulations.

**Precautions to be Taken in Handling and Storing** Corrosive Material! Store in cool, well-ventilated area, out of direct sunlight. Keep containers tightly closed. Do not get into eyes, on skin or on clothing. Do not breathe vapors. Retained residue may make empty containers hazardous.

**Other Precautions** Containers, even when empty, will retain residue and vapors. Always obey hazard warnings and handle empty containers as if they were full.

**Section VII Control Measures**

**Respiratory Protection (Specify Type)** NIOSH/MSHA-approved respirator.

Ventilation	Local Exhaust	Required	Special	Approved fume hood recommended.
	Mechanical (General)	Required.	Other	

**Protective Gloves** Natural rubber, Neoprene, Nitrile or equivalent. **Eye Protection** Chemical Safety Goggles, Full Face Shield

**Other Protective Clothing or Equipment** Rubber boots. Full rubber acid suit. Eye wash station, Safety Shower.

**Work /Hygienic Practices** Do **NOT** wear contact lenses. Wash thoroughly after handling. Engineering and/or administrative controls should be implemented to reduce exposure.