SAFETY DATA SHEET

ProChemOnline.com

ProChem inc.

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Hydrofluoric Acid**

PRODUCT NUMBER: 55930

SYNONYMS: Hydrogen fluoride, Fluoric acid, Fluorhydric acid, Fluorine hydride

MANUFACTURER:

Prochem, Inc.
826 Roosevelt Road
Rockford, IL 61109

PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word **Danger**

Hazard Statements

H300+H310	Fatal if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.
H330	Fatal if inhaled.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/vapours/spray/mist.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

HMIS CLASSIFICATION:
Health: 3 Fire: 0 Reactivity Hazard: 2 Personal: J
NFPA RATING:
Health: 4 Flammability: 0 Reactivity Hazard: 1

EYE CONTACT: Causes severe eye burns.

SKIN CONTACT: May be fatal if absorbed through skin. Causes skin burns.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

INHALATION: Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May cause delayed pulmonary edema.

INGESTION: May be fatal if swallowed. Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	Formula	Molecular Weight
Hydrofluoric Acid	70	7664-39-3	HF	20.01
Water	Balance	7738-18-5	H_2O	18.00

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: In case of eye contact, rinse with plenty of water and seek medical attention immediately. Cold water may be used. Keep the eyelids apart and away from the eyeballs during irrigation. Do not use oily drops or ointment of HF skin burn treatments on the eyes. Get medical attention immediately, preferably an eye specialist. Place ice pack on eyes until reaching emergency room.

SKIN EXPOSURE: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately. While waiting for medical attention, it has been shown that flushing the affected area with water for one minutes and then massaging HG Antidote Gel until there is a cessation of pain is a most effective first aid treatment. HF Gel contains calcium Gluconate that combines with HF for insoluble Calcium Fluoride, thus preventing the extraction of calcium from the body tissue and bones.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not explosive

EXTINGUISHING MEDIUM: Use appropriate media for adjacent fire. Use flooding quantities of water to cool containers, keep away from common metals.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen fluoride gas and material will react with glass and ceramics.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Keep away from incompatible materials.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS

Component	Exposure Limits		Basis	Entity
Hydrofluoric Acid	0.41 mg/m^3		TLV	ACGIH
	2 ppm	1.64 mg/m^3	CEIL	ACGIH
	3 ppm		PEL	OSHA
	3 ppm	2.5 mg/m^3	REL	NIOSH
	6 ppm	5 mg/m^3	CEIL	NIOSH
	30 ppm		IDLH	OSHA

TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
IDLH: Immediately Dangerous to Life or Health
IDLH: Immediately Dangerous to Life or Health
CEIL: Ceiling

EYE PROTECTION: Wear chemical safety glasses or goggles with a face shield for splash protection.
SKIN PROTECTION: Wear neoprene or nitrile gloves, full body (synthetic) protective clothing appropriate to the risk of exposure.
VENTILATION: Provide local exhaust, preferably mechanical.
RESPIRATOR: Use an approved respirator
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Clear to yellow liquid
ODOR: Acidic, suffocating odor
ODOR THRESHOLD: 0.5 to 3 ppm
BOILING POINT: 108° C
MELTING POINT: <-36.111° C
SPECIFIC GRAVITY: 1.15
VAPOR DENSITY: No data available
SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Uncontrolled addition of water
INCOMPATIBILITY: Moisture, bases, organic material, metals, glass, ceramics, aluminum, stainless steel, carbonates, cyanides, sulfides. Reacts violently with acetic anhydride, ammonium hydroxide, arsenic trioxide, calcium oxide, potassium permanganate, sodium, sodium hydroxide, and sulfuric acid.
DECOMPOSITION PRODUCTS: Hydrogen fluoride gas.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LC50 – inhalation – rat – 2240-2340 ppm – 1hr. LD100 – Ingestion – guinea pig – 80 mg/kg.
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: May cause genetic effects based on animal data.
TETRATOGENIC EFFECTS: Not available
CHRONIC TOXICITY: May cause Fluorosis or hypocalcaemia
RTECS: MW7875000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: Aquatic fish; EC50 (48hrs): 270 mg/l
AQUATIC INVERTEBRATE: Not available
TERRESTRIAL: Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN1790
Hydrofluoric Acid
CLASS 8 (6.1)
PG I

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
DSCL (EEC): Listed on the DSCL inventory
SARA 302/304: Not Listed
SARA 311/312: Not Listed
SARA (TITLE 313): Not Listed
CALIFORNIA PROP. 65: Not Listed
WHMIS CANADA: Not Listed

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.
DATE PREPARED: 07/14