

HYDROFLUORIC ACID

Synonyms: Anhydrous hydrogen fluoride; Aqueous hydrogen fluoride.

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible. Many reactions may cause fire or explosion.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			In case of fire: keep cylinder cool by spraying with water but NO direct contact with water. Combat fire from a sheltered position.
EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR! SEE NOTE
•INHALATION	Burning sensation. Cough. Dizziness. Headache. Laboured breathing. Nausea. Shortness of breath. Sore throat. Vomiting. Symptoms may be delayed (see Notes).	Ventilation, local exhaust	Fresh air, rest. Half-upright position. Refer for medical attention.
•SKIN	MAY BE ABSORBED! Redness. Pain. Serious skin burns. Blisters. (See Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention. See note.
•EYES	Redness. Pain. Severe deep burns.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal pain. Burning sensation. Diarrhoea. Nausea. Vomiting. Weakness. Collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

NOTE: Calcium Gluconate Gel

Exposure to hydrofluoric acid can produce harmful health effects that may not be immediately apparent! Calcium gluconate gel is a topical antidote for HF skin exposure. Calcium gluconate works by combining with HF to form insoluble calcium fluoride, thus preventing the extraction of calcium from tissues and bones. Keep calcium gluconate gel nearby whenever you're working with HF. Calcium gluconate has a limited shelf life and should be stored in a refrigerator if

possible and replaced with a fresh supply after its expiration date has passed. Use disposable gloves to apply calcium gluconate gel. Even after applying calcium gluconate, it is essential that a medical evaluation be made.

CHEMICAL DANGERS: The substance is a strong acid, it reacts violently with bases and is corrosive. Reacts violently with many compounds causing fire and explosion hazard. Attacks metal, glass, some forms of plastic, rubber and coatings.

Physical Dangers: Not combustible. Many reactions may cause fire or explosions.

Storage: Store in a cool, dry place. Incompatibles include water, oxidizers, reducers, other acids and combustibles. Store in containers made of Fluorocarbon plastic, lead or platinum.

Handling, Containment Devices and PPE: Use in exhaust hood with a combination of nitrile or natural rubber chemical resistant gloves (if heavy exposure is anticipated contact Safety and Health for other glove options) and chemical goggles. If a splash hazard to the face is present, a face shield is also required.

Waste Disposal: Collect and store in a fluorocarbon plastic, lead or platinum container with the following "Hazardous Waste-Hydrofluoric Acid." Call Safety and Health at x5069 on the Health Science Campus and x3600 on the Main Campus for Pick up.

Emergency Spill Procedures and Decontamination: Call x77 on the Health Science Campus and x2600 for Campus Police on the Main Campus.