



# HYDROGEN FLUORIDE

(ANHYDROUS)

UN 1052

Shipping Name: Hydrogen fluoride, anhydrous

Other Names: Anhydrous hydrofluoric acid

Fluoric acid

HF

Hydrofluoric acid



**WARNING!** • **POISON! BREATHING THE VAPOR CAN KILL YOU! SKIN AND EYE CONTACT CAUSES BLINDNESS AND SEVERE BURNS WHICH MAY NOT BE IMMEDIATELY PAINFUL !**

- Fire fighting gear including SCBA provides NO protection. If exposure to the chemical occurs, remove and isolate gear immediately and thoroughly decontaminate personnel

## Hazards:

- Container may BLEVE when exposed to fire
- Reacts with some metals to produce flammable and explosive hydrogen gas
- Highly corrosive attacking rubber, leather, glass and other materials
- Gas is slightly lighter than air

## Awareness and Operational Level Training

### Response:

- **DO NOT ATTEMPT RESCUE!**
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

## Description:

- Colorless fuming liquid which boils at 67° F
- Sharp, irritating odor
- Initially sinks in water and is soluble in water producing toxic hydrofluoric acid and heat
- Nonflammable
- Gas is slightly lighter than air
- Produces large amounts of vapor

## Operational Level Training Response:

### RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff and from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

### FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

## First Aid:

- **DO NOT ATTEMPT RESCUE!**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
  - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - ◆ Swallowed - do not make the victim vomit
- Victims should be examined by a physician as soon as possible
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing
- Note to physician: skin burns can be treated with calcium gluconate gel

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