



# FLUOROSULFONIC ACID

UN 1777

Shipping Name: Fluorosulfonic acid

Other Names: Fluorosulfuric acid



- WARNING!**
- **POISON! BREATHING THE VAPORS CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
  - Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
  - **DO NOT USE WATER! REACTS VIOLENTLY WITH WATER TO FORM TOXIC HYDROGEN FLUORIDE AND SULFURIC ACID MIST!**

## Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Reacts with metals generating flammable hydrogen gas
- Decomposition products upon heating include toxic hydrogen fluoride and sulfur oxides

## 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
- Acrid odor
- Reacts violently with water forming toxic hydrofluoric and sulfuric acids
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Produces large amounts of vapor when exposed to water or moisture

## Operational Level Training Response:

### RELEASE, NO FIRE:

- **DO NOT USE WATER DIRECTLY ON THE PRODUCT.** Reacts violently with water to form toxic hydrofluoric and sulfuric acids
- Stop the release if it can be done safely from a distance
- Prevent material and runoff 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
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

### FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material - if possible, do not allow water to come in contact with material; if water must be used, use it in flooding quantities
- If material is not leaking, 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 expanding), withdraw immediately to a secure location

## First Aid:

- **DO NOT ATTEMPT RESCUE!**
- The contaminated victim poses a health risk to the responder
- Decontaminate the victim from a safe distance with a stream of water; have the victim remove clothing if possible; provide Basic Life Support/CPR as needed
- Further 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
- **Do NOT perform direct mouth to mouth resuscitation; use a bag/mask apparatus**
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7789-21-1