

# DANGER

## Hydrofluoric Acid

**HYDROFLUORIC ACID (HF)** is an acid like no other and should be treated differently than any other acid. HF is so **POTENT** that contact with it will cause immediate corrosive burns due to the fluoride ion easily penetrating the skin causing destruction of deep tissue layers. Skin exposure may not be painful or visible for several hours. HF is also a systemic **TOXICANT** that can injure and even cause **DEATH**. HF can be handled safely using the following techniques: appropriate HF handling precautions, protective equipment usage, proper storage and emergency preparedness are **REQUIREMENTS** for lab operations requiring the use of HF.

### Safe Work Practices:

- **NEVER** work with HF alone or after-hours.
- Only personnel trained in the usage of HF should work with it.
- Handle only in a properly functioning, certified fume hood.
- Clear access to a certified eye wash and safety shower is **REQUIRED**.
- A properly maintained HF specific First Aid Kit and Spill Kit should be available.



### PPE:

- Tight fitting goggles with full face shield.
- Medium or heavyweight neoprene, natural rubber, viton or nitrile gloves (double gloving is recommended).
- Consult manufacturer's glove selection guide.
- Lab coat, acid resistant apron, long pants and closed-toed shoes.

### Storing HF Acid:

- Store in a **COOL, DRY** place, separate from incompatibles.
- Avoid contact with glass, concrete, metals, water, oxidizers, reducers, alkalis and combustibles.
- Store in containers made of Polyethylene or Teflon.
- Always use secondary containers that are compatible with HF.
- All containers holding HF must be correctly labeled.

### SPILLS:

- A commercial spill kit should be kept on-site in all areas where HF is used. Contact **ORS** for assistance in acquiring an HF Spill Kit.
- **DO NOT** use spill kits containing **OIL-DRY, KITTY LITTER, VERMICULITE, or SAND**.
- If the spill is large and in a confined space, or if inadequate ventilation is present, evacuate the room and report spill by dialing 9-1-1.

### FIRST AID:

Any exposure to HF should be medically examined.

#### SKIN CONTACT:

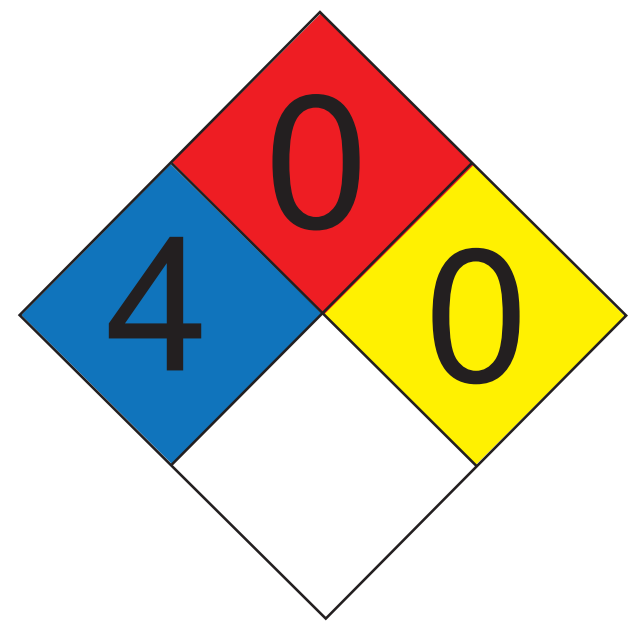
- Remove all contaminated clothing being careful not to spread contamination.
- **IMMEDIATELY** rinse with water under safety shower and wash all exposed areas.
- Have someone else call 9-1-1 for emergency medical assistance.
- Apply 2.5% Calcium Gluconate Gel to the affected areas using clean gloves.

#### EYE CONTACT:

- **IMMEDIATELY** move to the eye wash station and flush eyes for 15 minutes.
- While flushing eyes, have someone call 9-1-1 for emergency medical assistance.
- Flush eyes with 1% Calcium Gluconate solution.

#### INHALATION CONTACT:

- Seek immediate medical advice.



### Emergency Phone Numbers

- Fire/Ambulance: 9-1-1
- Poison Control Center 1-800-222-1222
- UGA Police 706-542-2200

**Questions?: Call UGA Office of Research Safety (ORS): 706-542-9088**