

Hydrofluoric Acid Information Sheet

Hydrofluoric acid (HF) is a colorless, fuming, corrosive liquid and is a highly hazardous substance. HF is a highly toxic liquid that is absorbed through the skin. The fluoride ion binds to calcium present in the blood, bones, and causes damage that can be painful and lethal if not treated.

Handling and Use Precautions

- **Documentation:** A laboratory SOP is required for HF procedures. It must be available and followed at all times.
- **First Aid:** A topical calcium gluconate cream must be available in the lab.
- **Training:** EHSS online HF training and hands-on training of laboratory approved HF procedures are required for all personnel prior to using HF.
- **Work under the buddy system:** HF should never be handled while working alone.
- **Decontaminate:** A 10 % calcium carbonate solution must be used to decontaminate work surfaces at the end of the procedure.

Required Personal Protective Equipment

- **Lab Coat:** Wear a knee-length lab coat and chemical resistant apron.
- **Eye Protection:** Wear ANSI certified (Z87) chemical splash goggles and full-face shield.
- **Hand Protection:** Double gloving required. Wear HF resistant gloves (butyl rubber, neoprene rubber, etc.) that can be worn over nitrile gloves. HF resistant gloves must cover the hands, wrists, and forearms.

Storage and Disposal

- Store HF in a ventilated corrosives cabinet.
- Waste HF must be placed into a labeled, compatible container and stored in the SAA for disposal.

Additional information can be found on the EHSS website or by contacting ehss@syr.edu or 315.443.4132.

