

CALTECH ENVIRONMENT, HEALTH AND SAFETY OFFICE

Hydrofluoric Acid

Hydrofluoric acid (HF) is an extremely corrosive acid used for many purposes including mineral digestion, surface cleaning, etching, biological staining, and in the manufacture of semiconductors. HF has a number of chemical, physical and toxicological properties, which make handling this material especially hazardous. This Safety Bulletin discusses how to protect yourself against the dangers of HF.

Safety Precautions for HF Use

- > User Training
 - MSDS (Material Safety Data Sheets) on HF should be available to anyone working with this material, online versions can be obtained from <u>www.hazard.com</u>.
- > Personal Protective Equipment
 - **Eye protection** in the form of safety goggles and a face shield should be used.
 - Gloves including heavyweight Viton, Neoprene or Nitrile are to be worn when working with HF. Always consult the manufacturer's glove selection guide when selecting a chemically resistant glove.
 - **Body Protection** in the form of a lab coat and acid resistant apron should be used.
- > Safe Work Practices
 - **Chemical Fume Hoods** should be used when working with HF.
 - Storage of HF and HF waste should be in a closed, labeled, chemically compatible container (e.g. polyethylene or Teflon), and should have a polyethylene secondary containment tray.
- ➢ EH&S Can Help
 - Contact us at x6727 if you need assistance training lab members on hazards, proper storage, handling and emergency procedures, or if you have any questions regarding HF use.