

Hydrofluoric Acid Use In CFN Clean Room

- 1) Hydrofluoric Acid work is ONLY permitted at CFN between the hours of 8:30-5:00 pm, M-F.
- 2) Designate a CFN staff member who is cognizant of HF hazards and procedures as a “buddy”.
 - a. The “buddy” is ideally within the lab, and at a minimum within the building.
- 3) Locate the HF burn kit, verify its contents, and review the instructions contained within.
- 4) Sign the HF/Ammonium Fluoride logbook located near the work area.
- 5) Post a sign stating “Caution HF in Use.”
- 6) Inform all occupants in the clean room that work with HF is beginning.
- 7) Use only the fume hood that is designated for HF use. HF work is permitted **ONLY** in this hood.
 - a. NO other activity is permitted in that hood while HF is in use.
- 8) Put on the **required PPE** prior to opening the HF container: Safety Goggles, Face Shield, Double Gloves (purple nitrile with overlying, properly fitting, elbow length nitrile), and a Chemically Resistant Apron.
{nitrile glove breakthrough time, @ 48% concentration ≈ 60 minutes}
- 9) Kolor Safe/Kolor Lock is available to neutralize a spill in the hood <10ml. For any larger spill, or a spill outside of the hood, evacuate immediately and call x 2222.
- 10) Inform the designated “buddy” that HF use is beginning and provide an estimate of work duration.
- 11) HF is an acute health hazard, so focus entirely on the work while HF is in use, and avoid all conversations not directly related to the task at hand.
- 12) HF acid must be used in plastic (Teflon or polyethylene/polypropylene) beakers, with secondary containment at all times.
 - a. GLASS, PYREX, AND METALS ARE INCOMPATIBLE WITH HF.
- 13) If dilution with water is necessary, always add acid to the water, **NOT** water to the acid.
- 14) Other lab workers are empowered to issue a “Stop Work” order if distracted or other dangerous behavior is observed. If told to “Stop Work”, do so immediately and in a safe manner.
- 15) After chemical use is complete, move the designated HF waste container from the HF Storage Safe into the chemical fume hood.
 - a. Use a plastic funnel to carefully transfer the HF waste into the waste container.
 - b. Return unused HF & HF waste container into the HF Storage Area or HF SAA.
 - c. Wipe down the area of chemical use with water and dispose of the wipes as hazardous waste.
 - d. Transport all chemical containers, funnels, & gloves to sink in secondary containment and rinse thoroughly with running water.
 - e. Dispose of nitrile gloves and chemical apron as hazardous waste
- 16) Sign the HF logbook.
- 17) Remove “HF in Use” sign.
- 18) Inform “buddy” that work is complete.