

Hydrofluoric Acid Safety

Hydrofluoric acid is an extremely hazardous chemical that can cause severe burns, systemic damage and bone damage if exposed by ingestion, inhalation, or skin absorption. HF burns are not immediately painful or visible after contact. Therefore, exposure can be fatal if not treated immediately. Persons with pre-existing skin disorders, or an impaired kidney or respiratory function are more susceptible to the effects of HF. Lab personnel should be trained in emergency response procedures and the proper handling of HF because of its harmful effects.

Guidelines

- 1. Personal protective equipment should be worn at all times when handling this chemical. These include:**
 - *Neoprene or PVC gloves*
 - *Splash goggles*
 - *Lab coats*
 - *Impervious apron*
 - *Closed toe shoes made of PVC or neoprene*
- 2. There must be access to an eyewash and safety shower in case of chemical contact. Do not block this safety equipment in your lab.**
- 3. Calcium gluconate gel should be accessible in a lab while using this chemical. Check expiration date.**
- 4. Never work alone, especially when handling this chemical.**
- 5. Hydrofluoric acid must be stored in a tightly sealed container made of polyethylene, or a similar material. HF is incompatible with glass, silicon-containing compounds, and metals. Contact with these materials can cause the release of toxic gases such as hydrogen.**
- 6. Hydrofluoric acid should be disposed of as hazardous waste. Please contact EH&S at 974-4036 with any questions or concerns.**
- 7. Always seek medical help if you have been exposed to hydrofluoric acid.**

Emergency Procedures

Skin Exposure

- 1. Proceed to a safety shower. Flush area with cool water while removing contaminated clothing and PPE. One should flush for at least 5 minutes.**
- 2. While flushing, someone should notify emergency personnel of the HF exposure.**
- 3. After flushing, the victim should apply 2.5% calcium gluconate gel to affected area. This prevents cross contamination. If the victim is unable to apply gel, one should assist using the proper PPE (neoprene gloves, safety goggles, lab coat).**

Eye Exposure

- 1. Flush eyes for 5 minutes or until emergency personnel has arrived.**
- 2. While flushing eyes, someone should notify emergency personnel of HF exposure.**

Inhalation

- 1. Move away from contaminated air.**
- 2. Notify emergency personnel of HF exposure.**