NOTICE
HYDROFLUORIC ACID USE PROCEDURE

Anhydrous HF is a clear, colorless, corrosive liquid which has a boiling point of 19.5C and therefore fumes at room temperature. HF is also available in the gaseous state. All forms including the solution or the vapor can cause severe burns to tissue. Acute effects of HF exposure include extreme respiratory irritation, immediate and severe eye damage and pulmonary edema. Skin, eye, or lung exposure to concentrated (>50%) HF solutions will cause immediate, severe, penetrating burns. Exposure to less concentrated solutions may have equally serious effects, but the appearance of symptoms can be delayed for up to 24 hours. **If you are exposed to hydrofluoric acid seek medical attention immediately, even if you do not feel pain.**

USING HYDROFLUORIC ACID SAFELY

- **Never use Hydrofluoric Acid when working alone or after hours**. Hydrofluoric Acid may be used when working alone during normal working hours provided knowledgeable laboratory personnel have been alerted and at least one is in the general vicinity.
- All persons who will be using Hydrofluoric Acid must be made aware of its properties and trained in proper procedures for use and disposal.
- Undergraduate students should never be given the task of mixing Hydrofluoric Acid solutions. Only experienced persons familiar with its properties should handle the concentrated acid.
- An antidote gel (calcium gluconate) must be located in a lab where HF is stored or handled. The antidote must be inspected prior to each use of HF, or at least monthly, ensure the tube has not expired or been opened.
- When working with Hydrofluoric Acid or concentrated HF solutions (> 1%):
    - Work in a fume hood with the sash as low as possible.
    - Wear goggles and a face shield.
    - Wear a long-sleeved, buttoned lab coat, pants or long skirt, and closed-toe shoes.
    - Wear Stanzoil Neoprene or Stanzoil Nitrile (22mil) gloves or other Hydrofluoric Acid resistant gloves.
    - A chemically resistant apron is also recommended.
- Any exposure to Hydrofluoric Acid must be medically evaluated.
- Immediately flood the affected area with cool water for a minimum of 15 minutes, Call 911, if calcium gluconate, gently rub calcium gluconate ointment onto the affected area. Continue applying until emergency medical responders arrive. Ensure you inform the responders that the exposure involved HF or hydrofluoric

acid. Sometimes saying the word Hydrofluoric can be easily confused with Hydrochloric so use HF to clarify.

- A small supply of calcium carbonate or calcium hydroxide for spills should also be kept near the fume hood where the work will be conducted. If a small quantity (100 ml or less) of dilute Hydrofluoric Acid solution is spilled, clean it up by applying powdered calcium carbonate or calcium hydroxide, or use a commercial Hydrofluoric Acid spill kit. Call Environmental Health & Safety to dispose of the residue ext. 73337. If a larger amount is spilled, or the acid is concentrated, contain the spill as best you can, evacuate the area, and call 911. Avoid exposure to the vapors.
- Environmental Health & Safety will dispose of all unwanted HF.