SOP FOR CORROSIVE CHEMICALS

Securing of gas cylinders

Generally not applicable. If the corrosive chemical is a gas, refer to the **SOP FOR COMPRESSED GASES** in this appendix for recommended practices.

Decontamination procedures

Personnel: Immediately flush contaminated area with copious amounts of water after contact with a corrosive material. Remove any jewelry to facilitate removal of the chemical. If a delayed response is noted, seek medical attention immediately. Be prepared to detail what chemicals were involved.

If the incident involves **Hydrofluoric acid**, seek immediate medical attention. For other corrosive chemical exposures, seek immediate medical attention if there is any doubt about the severity of the injury.

Area: Decontamination procedures vary depending on the material being handled. The corrosivity of some materials can be neutralized with other reagents. Special neutralizing agents should be on hand to decontaminate areas. Consult the safety data sheet (MSDS) for appropriate neutralizing agents.

Waste materials generated should be treated as a hazardous waste.

Designated area

Not applicable.

Emergency procedure

Emergency procedures address response actions to fires, explosions, spills, or injury to staff. Utilize the information available in the "Emergency 13" flip chart. The following emergency phone numbers should be utilized to initiate an emergency response:

All emergencies:	x13 (Public Safety)
Chemical Exposures:	x5-4955 (UHS)
Laboratory Safety Unit	x5-2402
Occupational Safety Unit:	x5-3241
Environmental Compliance/Hazardous Waste	x5-2056
Radiation Safety Unit:	x5-3781

Eye Protection

Eye protection in the form of safety glasses or goggles must be worn at all times when handling corrosive materials. Ordinary (street) prescription glasses do not provide adequate protection. (Contrary to popular opinion these glasses may not pass the rigorous tests for industrial safety glasses.) Adequate safety glasses must meet the requirements of the current version of Practice for Occupational and Educational Eye and Face Protection (ANSI Z.87.1) and must be equipped with side shields. Safety glasses with side shields do not provide adequate protection from splashes, therefore, when the potential for splash hazard exists other eye protection and/or face protection must be worn.

Eyewash

Where the eyes of any person may be exposed to corrosive materials, suitable facilities for quick drenching or flushing of the eyes shall be provided within 50 feet for immediate emergency use. Bottle type eyewash stations are not acceptable.

Fume hood

Manipulation of corrosive chemicals should be carried out in a fume hood if corrosive vapor production is anticipated.

Glove (dry) box

Not applicable.

Gloves

Gloves must be worn when handling corrosive chemicals. The selection of glove materials should be made according to the MSDS and the recommendations of the glove manufacturer.

Hazard assessment

Hazard assessment should include instruction on proper use and handling; spill control; and splash protection.

EHS Notification

Not applicable.

Clothing & Protective Apparel

To prevent dermal exposure to these chemicals: A layer of clothing will help prevent splash and droplet exposures. Personnel should wear a long sleeve shirt and pants. A lab coat can is also recommended. Personnel should wear non-skid sole shoes. The following types of shoes are not recommended: open-toes shoes, open heeled shoes, shoes made with cotton or a material that readily absorbs liquids.

Safety shielding

Safety shielding is required any time there is a risk of explosion, splash hazard or a highly exothermic reaction. All manipulations of corrosive materials that pose this risk should occur in a fume hood with the sash in the lowest feasible position. Portable shields, which provide protection to all laboratory occupants, are acceptable.

Safety shower

A safety or drench shower should be available within 100 feet where the corrosive chemicals are used. The path to the shower must be clear and unobstructed.

Signs and labels

All corrosive chemicals must be clearly labeled with the correct chemical name and hazard warning. Handwritten labels are acceptable; chemical formulas and structural formulas are not acceptable.

Special storage

Segregate the various types of corrosives. Separate acids and bases. Liquids and solids should also be separated. Specially designed corrosion resistant cabinets should be used for the storage of large quantities of corrosive materials. Store corrosives on plastic trays. Do not store corrosive materials on high cabinets or shelves.

Special ventilation

Manipulation of some corrosive materials outside of a fume hood may require special ventilation controls in order to minimize exposure to the material. Fume hoods provide the best protection against exposure to acutely toxic chemicals in the laboratory and are the preferred ventilation control device.

Spill response

Anticipate spills by having the appropriate clean up equipment on hand. The appropriate clean up supplies can be determined by consulting the safety data sheet. This should occur prior to the use of any corrosive material. Corrosive spill controls neutralize the hazardous nature of the spilled material. Acids and bases require different types of spill control materials.

In the event of a spill, alert personnel in the area that a spill has occurred. Do not attempt to handle a large spill of corrosive materials. Vacate the laboratory immediately and call Public Safety (x13) for assistance.

Remain on the scene, but at a safe distance, to receive and provide information to safety personnel when they arrive.

Vacuum protection

Not applicable.

Waste disposal

Most corrosive materials are hazardous waste. Questions regarding waste pick up should be directed to the Environmental Compliance / Hazardous Waste Unit (x5-2056). This office can also assist you in minimizing waste generation.