

## **ACID SOLUTIONS STANDARD OPERATING PROCEDURE**

### **HAZARDOUS CHEMICALS/CLASS OF HAZARDOUS CHEMICALS**

- Acids: acetic, hydrochloric, nitric, phosphoric, sulfuric, phosphoric

### **HAZARD DESCRIPTION**

- Topical exposure to acids may result in burns on the skin. Potential exposure occurs when handling aqueous acid solutions.

### **PROTECTION PROCESS**

- Good laboratory technique
- Appropriate shielding through use of personal protective equipment
- Use of fume hood when dealing with concentrated (fuming) acids

### **PERSONAL PROTECTIVE EQUIPMENT**

- Safety goggles (Wear chemical safety goggles when using small quantities or safety glasses or chemical safety goggles with face shield when using large quantities.)
- Nitrile, PVC, or neoprene gloves
- Rubber, neoprene, or PVC apron (when using large quantities and splash potential exists)

### **ENGINEERING/VENTILATION CONTROLS**

- Use concentrated acids in fume hood.
- A safety shower and eyewash must be available and accessible when working with corrosive liquids.

### **SPECIAL HANDLING PROCEDURES AND STORAGE REQUIREMENTS**

- Store mineral acids together, separate from oxidizing agents and organic materials.
- Store acetic acid and other organic acids with the combustible organic liquids.

### **SPILL AND ACCIDENT PROCEDURES**

- Skin exposure: Rinse affected skin with plenty of water while removing contaminated clothing and shoes. Rinse for at least 15 minutes. Seek medical attention.
- Eye exposure: Splashes may cause tissue destruction. Wash eyes for at least 15 minutes, lifting the upper and lower eyelids occasionally. Seek medical attention immediately.
- Small spills: Cover spill with sodium carbonate or bicarbonate. When reaction stops pickup with damp sponge or paper towels. (Do not attempt cleanup if you feel unsure of your ability to do so or if you perceive the risk to be greater than normal laboratory operations.)
- Large Spills: Notify others in area of spill. Turn off ignition sources in area. Evacuate area and post doors to spill area. Call Office of Environmental Health & Safety 292-1284 or University Police 911 (this is a 24 hour service). Remain on the scene, but at a safe distance, to receive and direct safety personnel when they arrive. Restrict

persons from area of spill or leak until cleanup is complete. Remain in area in safe location to assist EH&S with response.

#### WASTE DISPOSAL

- Diluted solutions may be poured down the sink accompanied by copious amounts of water.
- Old, concentrated solutions should be disposed of through EH&S.

#### SPECIAL APPROVAL REQUIRED

- No

#### DECONTAMINATION

- Use sodium bicarbonate and water.

#### DESIGNATED AREA

- No