# SMU EHS Standard Operating Procedure for use of Corrosives

**Examples:** hydrochloric, phosphoric, formic, and acetic acids; sodium and potassium hydroxides

## HAZARDS

### Potential Hazards
- Destroy tissues at site of contact (skin, eyes, or respiratory tract).
- Corrode metals.
- May produce hazardous/toxic gases.
- See Safety Data Sheet (SDS) for specific hazard information.

## HAZARD CONTROLS

### Selection and Purchase
- Purchase the smallest containers at the lowest concentration practical.
- Purchase in shatter-resistant containers if available.

### Storage and Transportation
- Store in well-ventilated areas with secondary containment (such as non-reactive bin).
- Store below eye level but not on the floor.
- Store away from metal.
- Do not store under the sink.
- Store away from incompatibles:
  - Organic acids away from inorganic acids
  - Acids away from bases
  - See SDS for specific compatibility information
- Transport corrosives in a bottle carrier.

### Engineering Controls
- Eyewash and safety shower required in immediate work area.
- Work in a chemical fume hood.

### Work Practice Controls
- When diluting acids, add acid to water slowly, in small amounts.
- Plan work to avoid contact with gloves. Change gloves immediately if contaminated.
- Maintain a local spill kit.

### Personal Protective Equipment (PPE)
**Minimum PPE:**
- Fastened lab coat
- Safety goggles
- 2 pairs of appropriate gloves

**Risk of splash or large amounts, add:**
- Face shield
- Impervious apron and sleeves OR coverall
- Thicker chemical-resistant gloves (worn over nitrile gloves)

*Consult the manufacturer’s glove guide for effectiveness with the chemical.*

## OTHER

### Waste
Collect and store according to SMU Hazardous Waste guidelines.

### Training
Sign Laboratory Specific Training document to indicate understanding of this SOP.

### Questions
Contact Environmental Health and Safety at 214-768-2430.

### Additional Guidelines
Please complete page 2 for additional laboratory-specific guidelines.
Laboratory-specific chemicals and procedures: