Standard Operating Procedure

Corrosives (Liquids and Solids)

Hazard Description: Corrosive chemicals are substances that cause visible destruction or permanent changes in human skin tissue at the site of contact. Corrosive chemicals can affect the eyes, skin, and respiratory tract. The main classes of corrosives include strong acids, bases, and dehydrating agents. Liquid corrosives are those with a pH of 4 or lower or a pH of 9 or higher. Solid chemicals are considered corrosive when in solution they fall in the above pH range. A highly corrosive chemical has a pH of 2 or lower or a pH of 12.5 or higher.

Labeling: Labeling must adhere to the requirements outlined in the Chemical Hygiene Plan. Corrosives have the following GHS pictogram:

Storage: Storage of corrosives must adhere to the requirements outlined in the Chemical Hygiene Plan. Specially designed corrosion-resistant cabinets should be used for the storage of corrosive materials. If no corrosion-resistant cabinet is available, store corrosives on plastic trays.

Handling: In addition to the requirements outlined in the Chemical Hygiene Plan the following should be considered when handling corrosives.

- When working with highly toxic corrosive chemicals use fume hood.
- Immediately close all containers of corrosive chemicals after use.
- The use of chemical dispensers.
- Perform liquid transfers slowly using a funnel to minimize splash, splatter, and spills.
- Do not pour water into acid. Slowly add acid to water while carefully stirring. Some corrosive chemicals will generate heat and/or release gas on contact with water. Understand the potential for reaction with water before diluting a chemical.
- Reactions involving corrosive chemicals are often exothermic. Use heat-resistant labware and allow extra volume in your vessel to account for expansion and/or foaming.

Personal Protective Equipment: Reference SDS.

Spill and Decontamination: Reference SDS.