

**National University of Engineering
College of Environmental Engineering
Physical-Chemistry Laboratory**

Procedures for Handling Corrosive Materials

It is important to understand that corrosive materials cause destruction of human tissue through chemical action at the point of contact. As corrosive chemicals can be liquids, solids, or gases, corrosive effects can affect the skin, eyes, and respiratory tract.

Before handling corrosive materials:

- Students must understand the use and risks associated with each chemical.
- Students must know the use and location of emergency equipment.
- Students must be informed on the Material Safety Data Sheet (MSDS). Ask faculty or Laboratory Head for the provision of MSDS.

While handling corrosive or any incompatible materials:

- Use the fume hood installed in the laboratory.
- Use proper personal protective equipment (PPE) including chemical splash goggles, splash shield, gloves and protective clothing (apron, oversleeves).
- Do not pour water into acid. Slowly add the acid to the water and stir.
- Do not allow residue to build up, wipe drips from containers and bench surfaces especially. Skin contact with dry residue will result in burns.

Storage of corrosive materials:

- Store all chemicals according to their compatibility group.
- Special storage may be required, consult the MSDS.
- Secondary containment is recommended.
- If not in specific acid or base cabinets, store all corrosive materials on the shelves closest to the floor level.

Waste procedures:

- All chemical waste must be collected and disposed of according to the instructions given by the instructor/faculty. Refer to the Hazardous Materials Management Handbook available in the Laboratory.
- Use labeled containers for proper segregation of waste material.

