



Standard Operating Procedure (SOP)



CORROSIVES (Excluding Hydrofluoric and Nitric Acid)

Effective Date: 8/23/2013

Revised Date: 8/23/2013

INTRODUCTION

This SOP applies to the various chemicals that are Corrosive, either acidic or alkali. Corrosives materials can cause destruction of living tissue by chemical action at the site of contact. This SOP does not apply to Hydrofluoric acid or Nitric acid. These have individual SOP's.

GENERAL LAB RULES

1. No eating, drinking, smoking, handling contact lenses, or applying cosmetics in the laboratory.
2. Persons shall wear buttoned lab coat, long pants, safety glasses or goggles and appropriate gloves when working with hazardous chemicals.
3. Mouth pipetting is prohibited; mechanical pipetting devices are to be used at all times.
4. All procedures are performed carefully to minimize the creation of splashes or aerosols.
5. Wash hands
 - after handling chemicals materials,
 - after removing gloves, and
 - before leaving the laboratory.

Additional Lab Specific Rules Here

POTENTIAL HAZARDS

Corrosives damage can occur not only on the skin and eyes, but also in the respiratory tract and, in the case of ingestion, in the gastrointestinal tract. While acids and bases are familiar corrosives, many other materials are corrosive to the body including [bleach](#) and [phenol](#).

HEALTH HAZARDS

Acids and alkalis are caustic materials that can cause serious burns to the eyes and skin. In addition, many give off vapors that can cause serious damage to the mucous membranes. They are classified as primary irritants and cause damage by direct action on body tissues.

PERSONAL PROTECTIVE EQUIPMENT

EYE PROTECTION

- Safety glasses, goggles or face shields shall be worn during operations in which Corrosives might contact the eyes (e.g., through vapors or splashes of solution).
- Ordinary (street) prescription glasses do not provide adequate protection. Adequate safety glasses must meet the requirements of the Practice for Occupational Education Eye and Face Protection (ANSI Z87.1-1989) and must be equipped with side shields.

HAND PROTECTION

- Use disposable nitrile gloves when working with chemicals. Check chemical compatibility chart for breakthrough time when using Corrosives.
- Laboratory personnel should thoroughly wash hands with soap and water before and immediately upon removal of gloves.

LAB COATS, ETC.

- Button lab coats, closed toed shoes, long pants and long sleeved clothing shall be worn when handling Corrosives. Protective clothing shall be worn to prevent any possibility of skin contact with Corrosives.

WORK PRACTICES

- Purchase corrosives in the smallest containers that are practical for lab use.
- Purchase in shatter-resistant containers if available (such as PVC-coated glass).
- Work with the smallest practicable amount and lowest practicable concentration of corrosive materials.
- When diluting acids, the acid should be added to water slowly, in small amounts.
- Avoid contact with incompatible materials.
- Use fume hood when working with corrosives with high vapor pressure. Contact Facilities and Campus Services (x4255) immediately if fume hood is malfunctioning.

SPECIAL HANDLING PROCEDURES AND STORAGE REQUIREMENTS

- Do not store with incompatible material (acids and bases may not be stored together)
- Do not store with flammables or oxidizers.
- Do not store in metal cabinets unless containers are placed in a plastic secondary containment tray.

Additional Lab Specific Special Handling/Storage Procedures

WASTE DISPOSAL

- Chemicals shall not be drain disposed unless prior approval is given by EH&S.
- Excess Corrosives and all waste material containing Corrosives must be placed in an container labeled with the following **“HAZARDOUS WASTE (Corrosive Chemical Name)”**.
- Contact EHS at x3427 for hazardous waste removal.

EMERGENCY PROCEDURES

Emergency Numbers:

Fire and Medical Emergencies	x5911 (911 on cell phone)
Environmental Health and Safety	x3427
Hillcrest Urgent Care (employees)	336-760-8999
Student Health (students only)	x5218
Poison Control	800-222-1222

FIRST AID

1. If chemical exposure occurs, remove contaminated clothing and flush exposed area for 15 to 20 minutes using emergency eyewash station and/or safety shower.
2. If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Call x5911 for medical assistance.
3. Call x5911 and describe the extent of injuries.
4. Report all accidental exposures to EHS and Human Resources (employees) or Student Health (students).
5. Complete an [online injury/illness report](#) if there is an over-exposure to the chemical or if there is an accident involving the chemical.

SPILL AND ACCIDENT PROCEDURES

If the chemical spilled is considered a carcinogen, reproductive toxin or highly toxic chemical, contact x3427 and evacuate area immediately, regardless of spill amount.

For all other spills use the chart below for spill reporting and response:

SPILL QUANTITY	PROPER SPILL RESPONSE
Spill less than 500 mL	Contact Environmental Health and Safety (x3427) and clean up spill using spill kit.
Spill greater than 500 mL	Do not attempt to clean up spill. Leave the area and immediately report to WFU Police (x5911) and EHS (x3427).

