# CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS

**Effective Date:** 8/23/2013  
**Revised Date:** 8/23/2013

## INTRODUCTION
- This SOP applies to CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS.
- The provisions for working with these substances may include, but is not limited to:
  - Establishing a designated area for work
  - Use of containment devices such as a fume hood or glove box
  - Procedures for safe removal of waste contaminated with the substance
  - Decontamination procedures

## 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.

## POTENTIAL HAZARDS
- Consult the SDS for specific hazards, both chemical and physical, of the compounds prior to its use.
- In addition to the toxicological hazard associated with these compounds, additional chemical or physical hazards may be present requiring additional safety precautions or PPE criteria.

## HEALTH HAZARDS
- Carcinogens are substances capable of causing cancer.
- Reproductive toxins are defined by OSHA as “chemicals that affect the reproductive capabilities including adverse effects on sexual function and fertility in adult males and females, as well as adverse effects on the development of the offspring.” (29 CFR 1910.1200)
- Substances with high acute toxicity “may be fatal or cause damage to target organs as a result of a single exposure or exposure of short duration”. (29 CFR 1910.1200 Preamble).
## PERSONAL PROTECTIVE EQUIPMENT

### EYE PROTECTION
- Safety glasses, goggles or face shields shall be worn during operations in which CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS 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 CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS. Check chemical compatibility chart for breakthrough time when using CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS.
- 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 CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS. Protective clothing shall be worn to prevent any possibility of skin contact with CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS.

### WORK PRACTICES
- All work with Carcinogens, Reproductive Toxins or Acutely Toxic Compounds is to be conducted in the fume hood. If this is not possible, contact the Office of Environmental Health and Safety at x3427 prior to beginning work.
- A designated work area is to be established in the hood whenever using Carcinogens, Reproductive Toxins or Acutely Toxic Compounds.
- The fume hood must be marked with a warning identifying the compound in use and the chief hazard associated with the compound.
- The area must be maintained in a clean and orderly fashion.
- After working with the compound the designated area is to be decontaminated with soap and water, or by means stated in the SDS.
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## SPECIAL HANDLING PROCEDURES AND STORAGE REQUIREMENTS

- Do not store with incompatible material.
- Storage areas for CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS are to be marked accordingly to identify the specific hazard.

Additional Lab Specific Special Handling/Storage Procedures

## WASTE DISPOSAL

- Chemicals shall not be drain disposed unless prior approval is given by EH&S.
- Excess CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS and all waste material containing CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS must be placed in a container labeled with the following **HAZARDOUS WASTE CARCINOGENS, REPRODUCTIVE TOXINS AND ACUTELY TOXIC COMPOUNDS**, AND THE FULL CHEMICAL NAME.
- Contact EHS at x3427 for hazardous waste removal.

## EMERGENCY PROCEDURES

**Emergency Numbers:**

<table>
<thead>
<tr>
<th>Type of Emergency</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire and Medical Emergencies</td>
<td>x5911 (911 on cell phone)</td>
</tr>
<tr>
<td>Environmental Health and Safety</td>
<td>x3427</td>
</tr>
<tr>
<td>Hillcrest Urgent Care (employees)</td>
<td>336-760-8999</td>
</tr>
<tr>
<td>Student Health (students only)</td>
<td>x5218</td>
</tr>
<tr>
<td>Poison Control</td>
<td>800-222-1222</td>
</tr>
</tbody>
</table>
# Standard Operating Procedure (SOP)

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### FIRST AID

1. **If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Call x5911 for medical assistance.
2. **In case of skin contact:** Take off contaminated clothing and shoes immediately. Wash off in safety shower for at least 15 minutes. Call x5911 for medical assistance.
3. **In case of eye contact:** Rinse thoroughly with plenty of water at eyewash for at least 15 minutes and call x5911 for medical assistance.
4. **If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call x5911 for medical assistance.
5. Call x5911 and describe the extent of injuries.
6. Report all accidental exposures to EHS and Human Resources (employees) or Student Health (students).
7. 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

- Any spill or release greater than that which could ordinarily be cleaned through general lab housekeeping is to be reported immediately to the PI.
- Evacuate the area and call EHS at x3427.
- After hours, evacuate the area and call x5911 and then x 3427.
- EHS will perform clean-up.