

**STANDARD OPERATING PROCEDURE:  
SENSITIZERS**

PI: _____	Room & Building: _____
Department: _____	Research Group: _____
Date: _____	Pertains to Lab Protocol: _____

**PROCEDURE**

Attach the experimental protocol(s) involving the use and handling of sensitizer(s).

**POTENTIAL HAZARDS**

A sensitizer (allergen) is a substance that produces an allergic reaction in normal tissue after repeated exposure to the substance. Examples of compounds that may cause sensitization in some individuals are chromium, nickel, arylhydrazines, diazomethane, various isocyanates, formaldehyde, benzylic and allylic halides, and many phenol derivatives. As sensitizers often have other potential hazard characteristics such as carcinogenicity and corrosivity, always use and handle sensitizers with caution.

**ENGINEERING/VENTILATION CONTROLS**

All procedures involving the use and handling of sensitizers should be performed in a chemical fume hood. If the process does not permit their handling in a chemical fume hood, make sure there is adequate local exhaust ventilation that directs potentially contaminated air away from the users.

**RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT**

Select the level of skin and eye protection, based on the potential for splashing and other forms of exposure.

*Minimum potential for splash & exposure:*

- ✓ Chemical splash goggles
- ✓ Single pair of nitrile, neoprene, PVC (vinyl), butyl, or Viton™ gloves
  - Immediately replace with new gloves when splash occurs.
- ✓ Protective clothing (e.g. non-porous lab coat, impervious sleeves; impervious apron; closed-toed, impervious shoes)

*When using or transferring large quantities:*

- ✓ Chemical splash goggles
- ✓ Face shield (if not working in a fume hood or if hood's sash is not in the down position) to protect face and neck.
- ✓ Double glove with nitrile, neoprene, PVC (vinyl), butyl, or Viton™ gloves
  - Immediately replace with new gloves when splash occurs.
- ✓ Impervious chemical resistant oversleeves/apron/smock/lab coat (PE or PVC)
  - Avoid using the traditional cotton-polyester white lab coat, which readily collects/absorbs compounds.
- ✓ Protective, closed-toed, impervious footwear

## **ADDITIONAL PRECAUTIONS**

As sensitizers often have other potential hazard characteristics such as carcinogenicity and corrosivity, account for these risks and refer to the MSDS(s) for precautions for the use, handling, and storage of the specific sensitizer(s) involved in the protocol.

## **MATERIAL SAFETY DATA SHEETS**

MSDSs are available electronically via EHS Department's Web page:

<http://www.uos.harvard.edu/ehs/msds/>. An option, but consider collecting in a binder the MSDSs that arrive with each order.

## **WASTE**

Refer to the *Laboratory Waste Guide* posted at

<http://www.uos.harvard.edu/ehs/longwood/HarvardLongwoodLabWasteGuide.pdf>

- Dispose of unneeded or expired stock as hazardous chemical waste.

## **EMEGENCY PROCEDURES**

Refer to the emergency flip chart titled "*EHS Procedures and Response Guidelines*," posted in each laboratory and found on EHS's webpage at <http://www.uos.harvard.edu/ehs/longwood/>

### **Chemical Spill:**

- For small spills, follow chemical spill response guidelines above. Don protective clothing, extinguish all ignition sources, and carefully apply vermiculite or other appropriate absorbent material to the spill. Place waste in durable containers for disposal.
- Respiratory protection may be necessary in the event of a large spill or a release in a confined area.
- For a large spill, vacate the lab, deny further entry, and call EHS for assistance.

### **Fire:**

- In the event of fire, evacuate and bar further entry.