Lab 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.

**REQUIRED PERSONAL PROTECTIVE EQUIPMENT**

(Refer to your lab’s PPE Assessment Report, supplemented with information here)

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 VitonTM 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 VitonTM 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.

**SAFETY REFERENCES**

Additional chemical safety information, including MSDSs and other information, is available electronically as tools at [ehs.harvard.edu/programs/safe-chemical-work-practices](http://ehs.harvard.edu/programs/safe-chemical-work-practices).

**WASTE DISPOSAL**

Dispose of unneeded or expired stock as hazardous chemical waste. Refer to the *Laboratory Waste Guide* posted at [ehs.harvard.edu/node/7699](http://ehs.harvard.edu/node/7699).

**EMERGENCY PROCEDURES**

(Refer to the [Emergency Response Guide](http://www.ehs.harvard.edu/programs/emergency-guidance) posted in your lab, supplemented with information here)

 **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 EH&S for assistance.

**Fire:**

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