General Use SOP for Irritants

#1 Process or Experiment Description

This standard operating procedure (SOP) is intended to provide general guidance on how to safely work with irritants. As irritation is only a secondary health effect with many substances, ensure to account for other more significant hazards such as carcinogenicity and corrosivity. If you have questions concerning the applicability of any item listed in this procedure contact the Principal Investigator/Laboratory Supervisor of your laboratory or Environmental Health and Safety (x3-0448).

#2 Hazardous Chemicals/Class of Hazardous Chemicals

Irritants are substances that cause reversible effects (e.g., swelling or inflammation) on skin or eyes at the site of contact. A wide variety of organic and inorganic compounds are irritants; thus, skin and eye contact with all laboratory chemicals should be avoided.

#3 Control of Hazards- General

Handling processes should be designed to minimize the potential for splash, splatter, or other likely scenarios for accidental contact.

#3a Engineering/Ventilation Controls

Use a properly functioning lab fume hood when handling irritants that can be inhaled (via mist/fume/gas/vapor). If the process does not permit the handing of such materials in a fume hood, contact Environmental Health and Safety at x3-0448 for review the adequacy of ventilation measures.

#3b Personal Protective Equipment

In addition to proper street clothing (long pants (or equivalent) that covers legs and ankles, and close-toed non-perforated shoes that completely cover the feet), wear the following Personal Protective Equipment (PPE) when performing lab operations/tasks involving irritants:

- Safety glasses (if splash potential exists, use goggles + face shield instead)
- Lab coat (if working with large amounts of flammable materials (≥ 1 liter), wear a fire-resistant lab coat, such as Nomex)
- · Appropriate chemical-resistant gloves

#4 Special Handling Procedures and Storage Requirements

Ensure secondary containment and segregation of incompatible chemicals per guidance within the <u>SU Chemical Hygiene Plan</u>. Also, follow any substance-specific storage guidance provided in MSDS documentation.

#5 Spill and Accident Procedures

Prompt response to chemical spills is critical to protect worker health & safety and to mitigate adverse affects to the environment. For further guidance, refer to "Response to Chemical Spills and Exposures". Laboratory personnel who work with hazardous chemicals are to be provided the opportunity to receive medical attention/consultation when:

- A spill, leak, explosion or other occurrence results in a hazardous exposure (potential overexposure).
- Symptoms or signs of exposure to a hazardous chemical develop.

#6 Waste Disposal

Irritant substances intended for disposal may likely be considered hazardous wastes. For general guidance regarding waste disposal, refer to: https://ehs.stanford.edu/topic/waste-disposal

#7 Minimum Training Requirements

- General Safety & Emergency Preparedness (EHS-4200)
- Chemical Safety for Laboratories (EHS-1900)
- · Laboratory-specific training

#8 Approval Required

Consult with PI regarding need for prior approval. Laboratory personnel shall seek and the PI must provide prior approval of any chemical usage involving the following list of restricted chemicals.

#9 Decontamination Procedures

Personnel: If immediate medical attention is required, call x9-911 (or x286 in the School of Medicine). Remove any contaminated clothing, and IMMEDIATELY flush contaminated skin with water for at least 15 minutes following any skin contact. For eye exposures, IMMEDIATELY flush eyes w/ water for at least 15 minutes.

Consult MSDS for guidance on appropriate first aid. Where medical attention is required, ensure to bring along MSDS(s) of chemical(s) to aid medical staff in proper diagnosis and treatment.

Area: Carefully clean work area after use. Decontamination procedures vary depending on the material being handled.

#10 Designated Area

For irritants that are also considered particularly hazardous substances, a designated area shall be established per other applicable SOPs.