



# General Use SOP

## Irritants

### Process or Experiment Description

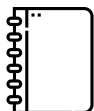
This standard operating procedure (SOP) provides general guidance on working safely with lab-scale quantities of irritants. In some cases, multiple SOPs may apply to a single chemical (e.g., for ethanol, both General Use SOPs for flammable liquids and irritants would apply). For questions about the applicability of any item in this SOP, contact your Principal Investigator/Supervisor or EH&S at 650-723-0448.

For work with large quantities of irritants, complex procedures, or otherwise particularly hazardous procedures involving irritants, EH&S recommends completing a [risk assessment](#), reviewing other EH&S guidance (such as [guidance on scale-up](#)), looking for SOPs on similar procedures in the [SOP Library](#), and/or writing a [dedicated SOP](#) and [submitting it for EH&S review](#).

### Hazards

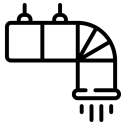
Irritants are substances that cause reversible effects (e.g., swelling or inflammation) on skin or eyes at the site of contact. Since a wide variety of organic and inorganic compounds are irritants, skin and eye contact with all laboratory chemicals should be avoided. Although irritants may not cause permanent adverse health effects, their temporary effects can be extremely unpleasant and uncomfortable.

### Control of Hazards



#### General

- Minimize the potential for splash, splatter, or other likely scenarios for accidental contact.
- Be diligent about lab hygiene - avoid touching your face or items that you will handle with ungloved hands (e.g., a smartphone). Change gloves regularly and thoroughly wash your hands immediately after completing work with the material.



## Engineering/Ventilation Controls

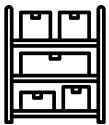
Use a properly functioning [chemical fume hood](#) when handling irritants that can be inhaled. If the process doesn't allow working in a fume hood, contact Environmental Health and Safety at 650-723-0448.



## 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):

- Safety glasses (if splash potential exists, wear goggles and a face shield instead)
- Lab coat
- Appropriate [chemical-resistant gloves](#)



## Special Handling Procedures and Storage Requirements

Containers should be closed when not in use. [Segregate](#) incompatible chemicals and use [secondary containment](#). Follow any substance-specific storage guidance provided in SDS.

## Emergency Procedures

All incidents should be reported to EH&S with an [incident report form](#).

### Spill

Refer to EH&S' guidance on [hazardous materials incidents](#) for general procedures for incident response, and call 650-725-9999 for assistance with spill cleanup.

If you are trained in spill cleanup and the spill is not health-threatening, proceed with spill cleanup.

There may be variations in procedure based on the specific spill, but the general steps are:

1. Don the appropriate PPE (See Personal Protective Equipment section, above).
2. Locate the nearest spill kit and bring it to the spill.
3. Use the absorbent pads in the spill kit to wipe up the spill.
4. Place the used absorbent pad and gloves inside the spill kit jar.
5. Place a waste tag on the spill kit and request waste pickup.

## Exposure

If immediate medical attention is required, call 911. Remove any contaminated clothing, and IMMEDIATELY flush contaminated skin with water for at least 15 minutes. Use a safety shower for any skin exposures to the trunk, legs, or feet.

For eye exposures, IMMEDIATELY flush eyes with water for at least 15 minutes using an eyewash station.

If medical attention is needed, provide the SDS(s) of the chemical(s) to aid medical staff in proper diagnosis and treatment.

For minor exposures, personnel can contact the [Stanford University Occupational Health Center](#) at 650-725-5308. For serious exposures, personnel should go to the Stanford Hospital Emergency Department.

Those who work with hazardous chemicals are entitled 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.

## Waste Disposal

Dispose of irritants as hazardous waste. All hazardous waste containers should have a waste tag attached before any waste is added. Before combining materials in waste containers, review the SDSs and Stanford's [Incompatibility Guide](#). For general guidance regarding waste disposal, refer to the guide for [handling and storing waste](#) and the [chemical waste poster](#).

## Minimum Training Requirements

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

## Approval Required

Consult with your PI regarding the need for prior approval. Laboratory personnel shall seek and the PI must provide prior approval of any chemical usage involving [Restricted Chemicals or High Risk Procedures](#).

## Designated Area

For irritants that are also considered [particularly hazardous substances](#) (i.e., select carcinogens, reproductive toxins, and highly acutely toxic materials), a designated area shall be established per the other applicable SOP(s).