Laboratory Emergencies Standard Operating Procedure

Revision: June 18, 2026

This Standard Operating Procedure outlines emergency response guidelines for laboratories that handle, store, or are potentially exposed to hazardous chemicals. Laboratories that handle other hazardous materials including biohazardous materials or radioisotopes should consult the U-M Biosafety Manual[1] or the Radiation Safety Services SOP[2] for emergency information prior to working with those specific hazards.

Emergency Reporting

Report all emergencies, suspicious activity, injuries, spills, and fires to the University of Michigan Division of Public Safety and Security (DPSS) by calling 9-1-1 or texting 377911. Register with the University of Michigan Emergency Alert System via Wolverine Access.

Emergency evacuation and utility outages

In the event there is an emergency evacuation or a utility outage (electrical, gas, ventilation or water) that affects your laboratory space, it is important to ensure the safety of the laboratory's occupants as well as others who may respond to assist. Prior to leaving the lab and only if safe to do so, secure the laboratory:

- Stop all reactions, chemical processes, etc.
- Cover and seal all chemical, biological, radioactive materials and hazardous waste containers
- Unplug or turn off non-essential electrical equipment (including ovens & hot plates)
- Shut off research gases & water
- Fully close all fume hoods & biological safety cabinets
- Securely close all refrigerators and freezers

Vacate and inform emergency responders of any processes, experiments or equipment still in operation that may pose a threat to health, property or the environment. Report utility outages to the building's Facilities contact or to the Facilities Service Center (FSC) at (734) 647-2059.

Fire

- Familiarize yourself with locations of fire alarm pull stations, fire extinguishers, egress stairways, and emergency exits in your building(s)
- Activate the fire alarm system if you see smoke or fire
- Evacuate the building immediately using the nearest marked exit
- Use stairs, do not use elevators
- Encourage those around you to evacuate as well
- Assist those with disabilities or those who cannot safely evacuate the building by getting them to a safe rescue location and notifying emergency responders of their location as soon as possible
- Keep building exits and fire lanes clear
- Meet at designated assembly areas
- Re-enter only when directed by authorities

All fires and unintentional ignition events, even those that do not activate alarms or require emergency services, must be immediately reported to the University of Michigan Division of Public Safety and Security (DPSS) by dialing 9-1-1. DPSS will perform an investigation and complete an after action report necessary for U-M Risk Management to deal with insurance recovery for damages.

In the event a fire extinguisher is discharged, you must contact the Environment Health & Safety (EHS) Fire Safety Service at (734) 647-1143. EHS must be notified because depending on the type of building involved, notification must be made to the State of Michigan Bureau of Fire Safety. To replace the discharged extinguishers, contact the FSC at (734) 647-2059.

Chemical Spill or Release

A minor chemical spill is one that the laboratory staff is capable of cleaning up safely without the assistance of EHS and emergency personnel.

Responding to a Major Chemical Spill

For **major** spills or significant areas of contamination, immediately evacuate to a safe location and call **9-1-1**. DPSS dispatchers will notify emergency response personnel.
If any individuals are injured or exposed to hazardous chemicals, refer to the table **Hazardous Material Exposures, Injuries or Illnesses** below for medical treatment and personal decontamination procedures.
If possible, remain in a safe location outside of the hazard zone until emergency responders arrive. Responders may request additional information regarding the spill/release, hazards present, and laboratory environment to aid in entry and remediation.
For all spills, complete and submit the EHS Incident and Near Miss Report[5]

Resources

In the event of a spill, consult the following documents for information about spill and emergency response:

- Chemical's Safety Data Sheet
- Process-specific standard operating procedure

Spill Kits

Stock the area with spill cleanup kits to clean up minor spills of commonly used chemicals. The kits contain:

- Instructions for use
- Absorbents
- Reactants
- Protective equipment
- Waste receptacle and labels

Kits are available through laboratory safety supply vendors or can be assembled from separate materials.

Procedure: Responding to a Minor Chemical Spill

1. Notify all individuals in the general vicinity that a spill has occurred.
2. Isolate the area and keep other personnel out of the contaminated area.
3. If spilled material is flammable, turn off ignition and heat sources. WARNING: Do not light Bunsen burners or turn on/off other switches or lights. Turning on/off switches may cause an electrical charge that could

create a spark.

4. Avoid breathing vapors from the spill; if possible, open outside windows.
5. Do you have the training and equipment to clean up the spill?
    a. If NO, call 9-1-1 and go to step 13.
    b. If YES, then go to the next step.
6. Put on protective equipment, including:
    a. Safety goggles
    b. Gloves
    c. Long-sleeve lab coat
7. Confine spill to as small an area as possible.
    a. **CAUTION**: Do NOT wash spilled materials down the drain.
    b. Avoid walking through spilled materials.
8. Use appropriate spill kits or sorbents to neutralize corrosives, absorb the spill, or both. **NOTE**: For powdered chemicals, use one of the following methods to clean up the spill:
    a. Sweep carefully to avoid generation of dust
    b. If appropriate, use moist sorbent pads
9. Collect contaminated materials and place them in a waste container.
10. Clean the spill area with water, and place any materials used for cleaning into the waste container with the contaminated materials.
11. Label and manifest the waste.
12. Request a waste collection from EHS Hazardous Materials Management (HMM) using one of the following methods:
    a. Call HMM at (734) 763-4568
    b. Complete the online Waste Pickup Request Form[4]
13. Notify area supervisor.
14. For **all** incidents and near misses, complete and submit the EHS Incident and Near Miss Report[5]

Hazardous Material Exposures, Injuries or Illnesses

If the employee is in need of emergency medical attention, call 911 immediately.

Injury type	Action	Notes
Exposure-Eyes	1. Immediately rinse eyes with copious amounts of water for at least 15 minutes, while occasionally lifting upper and lower lids. 2. Promptly seek medical attention.	
Exposure-Skin	1. Immediately remove contaminated clothing and shoes. 2. Rinse with water for at least 15 minutes.	
Inhalation (including spills of powder outside of a chemical fume hood)	1. Move the person to fresh air immediately. 2. Seek medical attention.	

Ingestion/Injection	1. Seek medical attention immediately.	
NOTE: If an ambulance is needed, call DPSS at 9-1-1 to request assistance.		

Treatment Facilities

Severe illness or injury requiring immediate care

Michigan Medicine Emergency Department or Call 9-1-1
1500 East Medical Center Drive, Ann Arbor (734) 936-6666

Non-urgent conditions

Campus Employees, Fellows and student workers
U-M Occupational Health Services
Mon-Fri 7:00 am - 4:30 pm
C380 Med Inn building
1500 East Medical Center Drive, Ann Arbor (734) 764-8021

Non-employee or guest of U-M
Go to an urgent care clinic in Ann Arbor
Report all work related accidents, injuries, illnesses or exposures to Work Connections within 24 hours by completing and submitting the Illness and Injury Report Form
For all incidents, complete and submit the EHS Incident and Near Miss Report[5] Contact EHS for assistance in performing an exposure assessment.

Training of Personnel

- All personnel shall read and fully adhere to this SOP when working with hazardous chemicals.
- All relevant employees should understand how to operate and where to find emergency response equipment, including:
  A. Emergency eyewash and shower
  B. Fire extinguishers - contact EHS for training opportunities. Do not use a fire extinguisher if you have not been trained on its use.
  C. Spill kits
  D. PPE needed for spill cleanup
  E. Specific antidotes when applicable, e.g. calcium gluconate for hydrofluoric acid exposures

Additional online training courses are available through EHS MyLinc[7].

External Links and References

[1] U-M Biosafety Manual

[2] Radiation Safety Services Preventing or Reducing Dispersal of Radioactive Contamination Following a Spill Standard Operating Procedure:

[3]U-M Emergency Alert System:
[4]EHS Waste Pickup Request Form
[5]EHS Incident and Near Miss Report Form (for Lab, shop, and studio incidents):
[6]Work Connections Work-Related Injury or Illness Report Form:
[7]EHS MyLinc

Certification

I have read and understand the above SOP. I have received approval from my Lab Director to perform this procedure. I agree to contact my Lab Director if I plan to modify this procedure.

Name	Signature	UMID #	Date

Laboratory Director **Revision Date**

Revision History (Do not print as part of SOP)		
6/18/2026	Annual Revision	Updated major spill response section