# The Ohio State University Department of Chemistry and Biochemistry Accident Playbook

**Important Telephone numbers**

9-1-1 or 614-292-2121

EHS- 614-292-1284 (during 7:00 am to 4:30 pm)

Service to Facilities- 614-292-4357

Chemical Safety Coordinator- 614-597-3569

Hazardous Waste Technologist- 614-597-3298

OSU Employee Health- 614-293-8146 Address 1581 Dodd Drive

OSU Ophthalmology- 614-293-8116

CBC Facilities- North Campus- 614-292-2669 South Campus- 614-247-5938

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**Know your campus address!**

(9-1-1 needs to know your address)

CBEC- 151 W Woodruff
McPherson- 140 W 18th Ave
Celeste- 120 W 18th Ave
Newman Wolfram- 100 W 18th Ave
Evans- 88 W 18th Ave
BioSci- 484 W 12th Ave
Riffe- 496 W 12th Ave
BRT- 460 W 12th Ave
DHLRI- 473 W 12th Ave

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In the event of any emergency, it is important to remain as calm as possible.

Take a deep breath.

Speak slowly and clearly. Make sure the dispatcher or person on the other end understands what information that you are trying to convey.

Step 1 – Determine if 9-1-1 needs to be called.

- Major Chemical Spill that requires building evacuation
- Chemical Exposure
- Fire – Laser or Chemical
- Injury/ Medical Emergency
- Biological Exposure
- Unsure (It is ok to call 9-1-1 if you are unsure).

Step 2 – Call 9-1-1 and have the following info ready:

- Caller name and telephone number
- Incident Location- (Know your building name and address, and location within the building)
- Identity of Material/Chemical along with quantities of material involved in the incident.
- Brief description of the incident
- Location where first responders can meet someone.

Step 3 – Call your PI or Supervisor

- Briefly explain what happened, and what steps you've taken so far.

Step 4 – Call the Chemical Safety Coordinator

- Chemical Safety Coordinator – 614-597-3569

Step 5 – Fill out an incident report and/or an accident report.

- Incident forms can be found at https://chemistry.osu.edu/safety/chem/accidents

Please see sections below for more detailed information about what to do in various scenarios.


- Chemical Spills
- Chemical Exposure
- Chemical Fire
- Medical Emergency
- Laser Incident
- Biological Spill or Exposure
- Radiation Incident


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## Calling 9-1-1

When using a cell phone, you may be routed to OSU Dispatch or Columbus dispatch, you can ask to be transferred to OSU dispatch, if needed.

The decision to call 9-1-1 and ride in an ambulance to the Emergency Department (ED) is very dependent on the situation and one that cannot be presented in a nice flow chart. In all cases if 9-1-1 is called, the paramedics can evaluate the injured and the injured can refuse transportation to the hospital. They can then seek medical treatment on their own or reach out to Occupational Health and Wellness (What most of us call Employee Health), if needed.

## Getting Medical Treatment

If this is a work-related injury, make sure you inform the medical provider that you were injured on the job. This includes paid undergraduates that are injured on the job.

## Minor Chemical Spill

For all minor spills that do not involve an injury or fire hazard, a trained lab member should clean up the spill. If you have any questions regarding a spill, contact the Safety Office or Environmental Health and Safety before attempting to clean the spill:

1. Notify surrounding personnel of the spill.
2. Determine the appropriate personal protective equipment (see the Lab's SOPs or SDSs for more information).
3. Please follow the directions on the spill kit for cleaning up the spill.
4. Complete a Department Incident Report.

## Major Chemical Spill

**(No injuries, the spill is contained and is not a risk to building occupants)**

A major chemical spill is a spill greater than 1 gallon or any amount of an acutely toxic chemical.

1. Evacuate the lab and surrounding areas.
2. Please call EHS at 614-292-1284 during (7:00 am to 4:30 pm M-F) or OSU police non-emergency number during off hours

Please tell the dispatcher the following:

My name is (insert name). I need EHS to clean up a chemical spill at (building) and (Room). The spill contains the following chemicals (insert chemical name(s) here). The approximate size of the spill is (insert approximate size of spill).

3. The Chemical Safety Coordinator needs to be called as soon as possible at 614-597-3569.
4. EHS will clean up the spill with assistance from CBC Safety Office.
5. Complete a Department Incident Report once the spill is completely cleaned.

## Major Chemical Spill- Building evacuation is needed.

**(Spill presents danger and/or noxious fumes are present or great chance of fire/explosion)**

A major chemical spill is a spill greater than 1 gallon or any amount of an acutely toxic chemical. Example

1. Evacuate the building by pulling the fire alarm.

2. Call 9-1-1.

Please tell the dispatcher individual the following as you are evacuating:

My name is (insert name). We have a major chemical spill at (building) and (Room). The spill contains the following chemicals (insert chemical name(s) here). The approximate size of the spill is (insert approximate size of spill). Inform the dispatcher that you have evacuated the building.

3. Evacuate to your buildings meeting place. (See your Building's BEAP). Your lab should have a plan on where to meet within the evacuation space.
4. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
5. You will not be able to enter the building until it is cleared by EHS, Emergency Management, CFD, OSU PD, or Chemical Safety Coordinator.
6. An email will be sent to "CBC Everyone" for updates.
7. You will be asked to discuss the incident with Chemical Safety Coordinator and other individuals as needed.
8. Complete a Department Incident Report and an OSU accident report.

## Chemical Exposure

1. Call 9-1-1
2. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
3. Procure a potential list of chemicals that the research might have been exposed to in the incident, if possible, to give to the ED. SDS's should be printed.
4. If treatment is needed for any chemical exposure not including the eye, the researcher needs to go to the Emergency Department or Occupational Health and Wellness.
5. If treatment is needed for any chemical exposure that includes the eye, the researcher needs to go to the Emergency Department or OSU Ophthalmology. I would just recommend the ED
6. Do not clean up after any chemical incident without talking to the Chemical Safety Coordinator.
7. Complete a Department Incident Report and an OSU accident report. If you are doing to the ED and are an employee, take an OSU Accident report with you.

## Chemical fire (small fire)

1. Immediately call 9-1-1
2. If the fire is small, you have received fire extinguisher training and you feel comfortable extinguishing the fire, and the material on fire will not injury you, you may attempt to extinguisher the fire with a fire extinguisher. Make sure you can get out of harm's way and an exit is always behind you.
3. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible. We have reporting timelines for any fire. Do not clean up fire before Chemical Safety Coordinator is informed.
   Complete a Department Incident Report

## Chemical fire (large fire)

1. Immediately call 9-1-1
2. Evacuate the lab making sure to close doors behind you and activate the pull alarm.
3. When the pull alarm is activated, the entire building requires evacuation. Please report to your building's evacuation place. (See your Building's BEAP). Your lab should have a plan on where to meet within the evacuation space.
4. Make sure all lab members are accounted for at the lab's evacuation point.
5. If someone is missing, make sure Emergency Responders are aware of the missing individual.
6. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
7. You will not be able to enter the building until it is cleared by EHS, Emergency Management, CFD, OSU PD, or Chemical Safety Coordinator.
8. An email will be sent to "CBC Everyone" for updates.
9. You will be asked to discuss the incident with Chemical Safety Coordinator and other individuals as needed.
10. Complete a Department Incident Report and an OSU accident report.

## Medical Emergency

1. Check the area for your own safety. Be aware of unusual sights, smells, sounds or behaviors.
    a. If you walk by and see someone unconscious in a lab, do not enter the lab. You could be walking into a dangerous situation. Call 9-1-1 and inform them about the situation.
2. If you are with an individual who is having a medical emergency and the scene is safe, you may approach the victim.
3. Call 9-1-1.

When calling 9-1-1, Please try to know the following information:

    a. Location of incident?
    b. Phone number at location?
    c. How many victims are involved in accident?
    d. Is the victim breathing? Is the victim conscious? Do they have a pulse? Is their severe bleeding? (Only check the victim's vitals if the scene is safe.)

4. Do not render first aid above basic first aid unless you have been trained.
5. Do not attempt to move individual unless they are in immediate danger.
6. Clear unnecessary people from area.
7. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
8. Have someone meet the first responders at building entrance and escort them to the victim.
9. Complete a Department Incident Report and potentially an OSU Accident Report.

## Laser – Fire or injury

In the event of a laser accident or injury, perform the following:

1. Shut down the laser system.
2. Provide for the safety of personnel if personnel are injured. Call 9-1-1
3. If there is a fire, leave the area, pull nearest fire alarm and/or contact the fire department. Do not attempt to fight the fire unless it is very small, and you have been trained in firefighting techniques.
4. Inform the Laser Safety Officer or Radiation Safety Officer in a timely fashion.
    a. Laser Safety Officer – (614) 457-6403
    b. Radiation Safety Officer – (614) 688-2599
5. Inform the PI of the laser system and Chemical Safety Coordinator as soon as possible.
6. If injury has occurred, a written report must be submitted to the Laser Safety Officer within 3 business days.
7. Complete a Department Incident Report and an OSU accident report.
8. Following any laser incident involving injury or fire, operations may not continue until the approval of the Laser Safety Officer has been received.

## Biological spill

1. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.

Infectious waste spills must be contained and cleaned up immediately.

A spill kit containing absorbent material, bleach or another USEPA registered tuberculocidal disinfectant, biohazard bags, gloves, eye protection, and a biohazard sharps container must be accessible in the laboratory.

To use bleach as a disinfectant, a 1:10 dilution (minimum 10% sodium hypochlorite solution) of household bleach should be prepared immediately prior to use, with a minimum of 30 minutes contact time with the waste. If another USEPA registered tuberculocidal disinfectant is used, the manufacturer's recommendations for concentration and contact time should be followed.

1. Limit access to area to authorized personnel.
2. Open the spill kit.
3. Put on appropriate PPE (i.e. gloves, eye protection, coveralls).
4. Contain liquid spills by covering with absorbent pads. Place contaminated absorbent pads and other contaminated solids into a biohazard bag. Seal the bag by tying in a knot and place into a second biohazard bag. Sharps (i.e. needles, blades or broken glassware) associated with the spill should be placed in a biohazard sharps container.
5. Clean the spill and cover contaminated surfaces with absorbent pads and soak with appropriate disinfectant. Allow the disinfectant to stand on the contaminated material for the minimum recommended contact time.
6. Place all materials used during the cleanup process in a biohazard bag. Seal the bag by tying in a knot and place into a second bag. Place all biohazard bags into a biohazard burn box.
7. You cannot wear clothing home that has been contaminated with potential BSL2 agents on them.
8. Disinfect all re-usable materials from the spill kit (i.e. goggles, dustpan, etc.) and put back into the kit. Replenish disposable items from the spill kit.
9. Complete a Department Incident Report

Taken from https://ehs.osu.edu/infectious-waste-spill-containment-and-clean-procedure

## Biological Exposure or Injury

Depending on the severity of the incident, call 9-1-1. If an injury has occurred involving a biological agent, the incident needs to be reported ASAP. Call EHS and inform them of the incident. The University Biosafety Officer will need to be informed.

During regular business hours call 614-292-1284 or after hours call 9-1-1 (ask to be transferred to OSU dispatch.

Make sure you PI is informed about the incident.

Call the Chemical Safety Coordinator.

You will need to report the exposure- http://orrp.osu.edu/ibc/osuibcpolicies/incidentreporting/

If there is any fear of exposure, go to Employee Health (as an employee or you are being paid), Student Health (for Students) or the Emergency Department.

# Radiation

### Minor Spill (< 100 microcuries)

1. Notify persons in the laboratory or affected area that a spill has occurred.
   Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
2. Cover the spill with absorbent pads. If possible, the spill should be shielded, but only if it can be done without further contamination or without significantly increasing radiation exposure.
3. Confine the movement of all potentially contaminated personnel and evaluate for contamination before allowing them to leave the location.
4. Use disposable gloves and remote handling tongs. Carefully fold the absorbent paper and pad. Insert into a plastic bag and dispose of in the radioactive waste container. Include all other contaminated materials such as disposable gloves.
5. With smear wipes, and if appropriate with a survey meter, check the area around the spill, hands, and clothing for contamination.
6. Report the incident to the Radiation Safety Section of Environmental Health and Safety (292- 1284) within 24 hours. If the spill occurs during off hours, the Radiation Safety emergency response cell phone number is (614) 561-7969.
7. Complete a Department Incident Report

## Major Spills (> 100 microcuries)

1. Notify all persons not involved in the spill to vacate the laboratory or affected area.
2. Call for Help: During normal office hours, notify the Radiation Safety Section - Environmental Health and Safety at 292-1284. During off-hours the Radiation Safety emergency response cell phone number is (614) 561-7969.
3. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
4. Cover the spill with absorbent pads. If possible, the spill should be shielded, but only if it can be done without further contamination or without significantly increasing radiation exposure.

5. Confine the movement of all potentially contaminated personnel and evaluate for contamination before allowing them to leave the location.
6. Leave the room and lock the door(s) to prevent entry. Placard the door so that no one inadvertently unlocks the door or enters the room.
7. Performed under the guidance of Radiation Safety personnel.
8. Complete a Department Incident Report

## Personnel Contamination

1. Radiation Safety must be notified immediately of any incident involving personnel contamination, regardless of the radionuclide or activity. During normal office hours, notify the Radiation Safety Section of Environmental Health and Safety at 292-1284. During off-hours the Radiation Safety emergency response cell phone number is (614) 561-7969.
2. Begin decontamination of skin surfaces immediately with soap and warm water. Contaminated clothing should be removed and stored for further evaluation by Radiation Safety. Decontamination should continue until no activity is detectable, but not to where effectiveness of the skin as a barrier is destroyed. Decontamination efforts should cease when the skin starts to become thin and reddened. The health of the skin should be maintained to minimize absorption and internal deposition of radioactive material.
3. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
4. Complete a Department Incident Report

### Radiation Spill and Potential Employee Radiation exposure with injury

1. Call 9-1-1. You will need to make sure that the emergency responders are aware that Radiation is involved.
2. Radiation Safety must be called ASAP. During normal office hours, notify the Radiation Safety Section of Environmental Health and Safety at 292-1284. During off-hours the Radiation Safety emergency response cell phone number is (614) 561-7969.
3. Get their recommendation on what to do for the injury.
4. Your PI and the Chemical Safety Coordinator (614-597-3569) needs to be called as soon as possible.
5. Complete a Department Incident Report