

In the event of a chemical spill, the first thing that must be evaluated is whether an evacuation of the spill area is necessary. If you are in a situation where the spill is not under control, the safest action is to evacuate the area.

Chemical Spill Categories:

Chemical spills will fall within either Minor or Major spill categories. Each category is characterized by one or more of the following criteria:

- **Minor Spill:**
 - A minor chemical spill is one that the **staff** (*Researcher, PI, chemical user, etc.*) is capable of cleaning up safely without the assistance of EHS and/or emergency personnel.
 - Can be cleaned up by properly trained personnel utilizing an available spill kit.
 - Does not have the potential to become a significant emergency situation (no risk of fire, explosion, chemical reaction, or chemical exposure hazard).

- **Major Spill:**
 - A major chemical spill is one that staff is **NOT** able to clean up safely without the assistance of Environment, Health & Safety (**EHS**) and emergency personnel, regardless of the training they have received.
 - Spill is beyond the expertise of personnel and the necessary materials required for safe cleanup are unavailable.
 - Involves injury/contamination to personnel.
 - Poses a significant chemical exposure hazard.
 - Has the potential to become a serious emergency situation requiring area and or building evacuation.

NOTE: for **Major** spills or with significant areas of contamination, call **911**.

Minor Chemical Spill Procedures:

1. Assess the size of the spill, type of chemical, and availability of spill cleanup materials.
2. Alert personnel in the area of the spill and evacuate the immediate area of the spill.
3. Review the SDS for the chemical prior to the start of cleanup activities.
4. Do you have the training and equipment to clean up the spill?
 - ⇒ If **NO**, call 911 and go to step 14.
 - ⇒ If **YES**, then to go the next step.
5. Based on the chemical hazard(s) and the SDS, put on appropriate PPE including:
 - ⇒ Safety goggles
 - ⇒ Gloves
 - ⇒ Long-sleeve lab coat

6. If the spilled chemical is flammable, turn off or extinguish any potential sources of ignition. Do not turn off laboratory ventilation systems.
7. Confine spill to as small an area as possible.
 - ⇒ **CAUTION:** Do NOT wash the spill down the drain.
8. Apply appropriate absorbent materials working from the outside of the spill inward.
9. Pick up any broken glass or other sharps utilizing tongs and place in a suitable puncture resistant container for disposal. Place a Hazardous Waste label on the container listing the contents.
10. Collect used absorbent material in a plastic bag or other suitable container.
11. Using spill pads and a suitable cleaning solution, decontaminate the area of the spill. Place all used spill pads in the same container as the other collected absorbent.
12. Once the spill has been cleaned up, remove any contaminated PPE and dispose of it in the same container as the spill cleanup material. Place a Hazardous Waste label on the container listing the contents.
13. Contact EHS at EHS@Rowan.edu or at 856.256.5105 to arrange for the disposal of the spill cleanup waste.
14. Promptly report the spill to the Principle Investigator or area supervisor.
15. Replenish all used spill cleanup materials as soon as possible.
16. Were there any illnesses or injuries as a result of the incident?
 - ⇒ If YES, complete and submit the [Rowan Incident Report Form](#), and follow instructions with form and then go to the next step.
 - ⇒ If NO, contact EHS at EHS@Rowan.edu or call 856.256.5105 to ensure we have been notified.

Major Chemical Spill Procedures:

1. Assess the size of the spill and the type of chemical involved. If the spill is defined as a **major spill** as noted above, go to step 2 below.
 - ⇒ If the chemical is unknown, or if the chemical is acutely hazardous,
Do NOT attempt to perform a cleanup and go to step 6 below
2. Attend to any injured persons and remove them from chemical exposure. If there is a chemical exposure, assist injured persons to the nearest eyewash/safety shower as required.
3. Alert others in the area of the emergency and evacuate the room. If a building evacuation is necessary, activate the nearest fire alarm as you leave.
4. If the spilled material is flammable, turn off ignition and heat sources. **WARNING:** Do not light Bunsen burners or turn on other electrical switches.
5. If the spill situation is under control and there are no injuries, contact EHS for assistance. If it is after hours, contact Public Safety.
6. Dial **911** if there are any injuries or if there is a risk of fire, explosion, hazardous chemical reaction, high personal chemical exposure or if the chemical(s) are acutely hazardous.
7. Close doors to affected areas.
8. Post warnings to keep personnel from entering the area.
9. Have a person with knowledge of the incident and area available to assist emergency personnel.
10. Were there any illnesses or injuries as a result of the incident?
 - ⇒ If YES, complete and submit the [Rowan Incident Report Form](#), and follow instructions with form and then go to the next step.
 - ⇒ If NO, contact EHS at EHS@Rowan.edu or call 856.256.5105 to ensure we have been notified.

Evacuation Criteria:

- If a chemical spill is located within an operating fume hood, evacuation is generally not necessary. The fume hood should contain the hazards associated with the chemical.
- If a chemical spill is outside of an operating fume hood but contained within a laboratory, generally only evacuation of the laboratory space should be required. Laboratories normally operate under negative pressure with respect to surrounding areas, containing the hazards associated with the spill.
- If a chemical spill is outside of a laboratory, if an acutely hazardous substance is spilled, or if there is reason to believe that a spill in the laboratory may escape into the surrounding areas, do not hesitate to pull a fire alarm if you feel the need for a building-wide evacuation.

Personal Contamination Measures:

- If a spilled material has contacted any part of your body, begin first aid measures immediately. Call out for help and move directly to the nearest eyewash or safety shower. Disrobe promptly if clothing is contaminated.
- If eyes or skin are involved, flush with an emergency eyewash and/or safety shower for a minimum of 15 minutes. Other persons should assist the contaminated individual with the operation of the eyewash and/or safety shower.
- Promptly dial 911 to summon emergency medical assistance for the injured person.

Resources:

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

- Chemical's Safety Data Sheet (SDS)
 - ⇒ SDSs can be found via [BioRAFT](#) or by accessing the locations electronic or paper based files.
- Process-specific Laboratory or Research standard operating procedures.
- If you require any additional information, contact EHS at 856-256-5105 or via email at EHS@Rowan.edu