

## Laboratory Spill Response - Chemical, Biological, Radiological

[1]

Download of poster available at [Lab Spill Procedures](#) [1]

### Chemical Spill

#### 1. Assess the spill.

a. Is the spill manageable? Is it a minor spill that can easily be cleaned up? If no:

- \. Evacuate lab, restrict area and notify others in the area of the spill.
- \. If there is immediate risk to the safety of other people in the building, activate the emergency alarm and evacuate.
- \. Dial ext. 2000 and provide campus dispatch with all relevant information.
- \. If safe to do so:
  - o Attend to injured/contaminated personnel.
  - o Turn off ignition sources if flammable material involved.
  - o Restrict/contain the spill.

b. Is the spill manageable? Is it a minor spill that can easily be cleaned up? If yes:

- \. Attend to injured/contaminated personnel.
- \. Turn off ignition sources if flammable material involved.
- \. Restrict area and notify others of the spill.
- \. Don appropriate PPE.
- \. Contain the spill.
- \. Neutralize if appropriate /required.
- \. Soak up spilt material using appropriate absorbents as applicable.
- \. Transfer to appropriate container and treat as hazardous waste.

\*Note that certain materials such as pyrophorics, mercury, and hydrofluoric acid require specific neutralizers and/or modified spill response procedures. Specific response procedures should be developed based on the identity and quantity of material being handled.

### Biological Spill

For Level 1 or 2 biohazards:

- Attend to injured/contaminated personnel.
- Restrict area and notify others of the spill.
- Don appropriate PPE.
- Contain the spill.
- Decontaminate the area with appropriate disinfectant allowing for sufficient contact time.
- Soak up spilt material using appropriate absorbents as applicable.
- Transfer to autoclave bag and treat as biohazardous waste.

The disinfectant in this lab is:

### Radiological Spill

See Radiation Safety Manual for detailed procedure.

1. Assess the spill.
  - a. Does the spill involve more than 100 exemption quantities, contamination of personnel or release of volatile material? If no:
    - \. Restrict the area and notify others of the spill
    - \. Don appropriate PPE
    - \. Contain spill.
    - \. Absorb from the outside in as applicable, transferring used absorbents into disposal containers and treat as radioactive waste.
    - \. Wipe test or use survey meter to identify residual contamination
    - \. Decontaminate area with cleaning agent such as DeCon until radiation counts return to background levels.
  - b. Does the spill involve more than 100 exemption quantities, contamination of personnel or release of volatile material? If yes:
    - \. Evacuate lab, restrict area and notify others in the area of the spill.
    - \. Contact the RSO at (519) 824-4120 ext. 54888 or ext. 53774 (out of hours dial ext. 52000 or (519) 840-5000).

*Note that this information reinforces but does not replace the requirement to post CNSC poster, "Spill Procedures"*

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### Source

URL: <https://www.uoguelph.ca/hr/about-hr/environmental-health-safety-ehs/ehs-programs-policies-guidelines-and-forms/ehs-programs-8>

### Links

[1] [https://www.uoguelph.ca/hr/system/files/lab-spill-procedures-chem-bio-rad%20POSTER\\_0.pdf](https://www.uoguelph.ca/hr/system/files/lab-spill-procedures-chem-bio-rad%20POSTER_0.pdf)