



CHEMICAL AND BIOLOGICAL SAFETY INFORMATION



SAFETY REQUIREMENTS AND PRECAUTIONS

1. Comply with all federal (e.g. PHAC; CFIA) and provincial regulations and follow all University Policies and Procedures.
2. Develop standard operating protocols for experimental procedures and for equipment / instruments.
3. Anyone working with or around hazardous substances requires Safety Resources' training (i.e. Laboratory Safety, WHMIS 2015, Biosafety, Radiation Safety, etc.).
4. Site-specific training by a local supervisor is required for all individuals working in a research facility.
5. All training must be documented (certificates; training logs; etc.) and verified.
6. Laboratory doors should be kept closed at all times and locked when the lab is unattended.
7. Emergency contact numbers must be posted on the entry of the lab.
8. Maintain good housekeeping in laboratory and test all safety equipment regularly (eyewash; safety shower; etc.).
9. Maintain an up-to-date inventory of hazardous materials and hazardous waste disposal records.
10. Refer to building emergency response plan (ERP) for spills and medical emergencies. Equipment for spill cleanup must be maintained and ready. ERP training must be completed yearly.
11. Eating, drinking, storing food applying lotions/make-up, inserting/removing contact lenses, mouth pipetting, and/or smoking is prohibited in the laboratory.
12. Keep personal belongings separate from areas where hazardous materials are handled or stored.
13. Hair that may become contaminated when working in the containment zone to be restrained or covered.
14. Clearly identify working areas and equipment used for handling hazardous substances.
15. Where possible, use compatible and disposable absorbent liners on surfaces to contain any spills of hazardous substances.
16. Review/monitor procedures and substitute with less hazardous substances wherever possible. Minimize exposure risks by reviewing safety information (i.e. safety data sheet (SDS), biosafety plan, pathogen safety data sheets (PSDS), etc.).
17. Wear appropriate personal protective equipment (PPE) when working with hazardous substances to limit exposures (i.e. lab coat, disposable gloves, safety glasses, closed toe-heeled shoes). Remove PPE prior to exiting the lab.
18. Wash hands thoroughly with soap and water for at least 20 seconds before leaving any laboratory or after working with hazardous materials.
19. Use face protection when there is a risk of exposure to splashes or flying objects.
20. Employ good microbiological laboratory practices.
21. Cover open wounds, cuts, scratches, and grazes with waterproof dressings.
22. Always use a fume hood when handling volatile, toxic or flammable chemicals and a biosafety cabinet (BSC) when required for infectious agents (consult SDS, PSDS or biosafety plan). Ensure all units are tested yearly, when purchased, or when moved.
23. Centrifugation of infectious material where inhalation is the primary route of infection to be carried out in sealed safety cups (or rotors) that are unloaded in a BSC.
24. Avoid bending, shearing, re-capping, or removing needles from syringes and when necessary, perform only as specified in SOPs.
25. Disinfect equipment and work areas with appropriate disinfectant and contact time after use to minimize spread of contamination (refer to biosafety plan).
26. For exposures to biohazardous materials, refer to the biosafety plan and contact the Biosafety Officer.
27. Labs using biohazardous materials in Risk Group (RG) 2 or higher are to have a biosafety permit. For RG1, labs must complete a Biological Materials Declaration Form.
28. Equipment and Area Release Form must be filled out by the lab user, signed by the supervisor and attached to equipment that is serviced, sold, or relocated.
29. Report all accidents and incidents to your supervisor and to Safety Resources.

STORAGE AND HAZARDOUS WASTE DISPOSAL

1. Place WHMIS labels with an accurate date on all containers.
2. Place warning signs/symbols on all hazardous storage facilities.
3. Handling procedures and disposal of hazardous waste shall be in accordance with the Hazardous Waste Disposal Standard. Individuals who handle, package and dispose of waste must be trained.
4. Ensure that procedures are in place to prevent unnecessary storage (accumulation) of substances in the laboratory to avoid chemical degradation destabilization.
5. Store hazardous substances in compatible groups, in proper containers, and with sufficient security.
6. Do not dispose of hazardous waste through regular garbage or release any hazardous waste to the environment (e.g. sewer, sinks, drains).
7. Sharps (needles, razor blades, glass slides, etc.) must be placed into a commercially available SHARPs container and disposed of as biohazardous waste.
8. All biohazardous waste must be inactivated prior to disposal in regular waste or must be disposed of via the biohazardous waste disposal system.

SPILLS

1. Comply with your local Emergency Response Plan.
2. Isolate the spill/substance release (if possible).
3. Ensure others are aware of the spill and do not enter the area (i.e. warning signs).
4. Evacuate the area (if necessary).
5. Wear proper PPE to protect hands, eyes, body, and respiratory system during spill cleanup.
6. Have the proper laboratory spill response materials such as compatible absorbent material (e.g. absorbent, spill pads, etc.), inactivation or neutralizing material, pH paper, plastic bags, tape, and long forceps.
7. Dispose of spill response materials in a proper hazardous waste container.
8. File a Safety Resources Incident Report Form online at www.safetyresources.usask.ca.



Ensure laboratory spill response materials are available. Always use proper PPE for spill clean-up.

For spill response assistance, call:

- Waste Management Facility (306-966-8497) or
- Protective Services (306-966-5555)

In case of injury, call 9-1-1 (9-9-1-1 from campus)

Ensure Safety Data Sheet(s) are available to emergency response personnel



SAFETY RESOURCES

306-966-4675

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