

Chemical Use Guidelines

- 1. Laboratory Safety Manual:** Ensure that a laboratory safety manual is maintained in the laboratory and includes Standard Operating Procedures (SOPs) that reflect current procedures and chemicals in use. Download the most current version of the UW Lab Safety Manual at <https://www.ehs.washington.edu/resource/laboratory-safety-manual-510>.
- 2. Standard Operating Procedures (SOPs):** Comprehensive SOPs must be in place for processes in the laboratory involving the use of carcinogens, organ-specific toxicants, reproductive hazards, and particularly hazardous chemicals, such as work with fixatives, anesthetics, alcohols, acids/bases, or ethidium bromide. Employees must be trained on SOPs prior to working with agents or processes. Refer to Section 6 of the UW Laboratory Safety Manual for information on developing comprehensive SOPs. SOP templates are available online at <https://www.ehs.washington.edu/chemical/chemical-sop-templates-and-guidelines>.
- 3. Personal Protective Equipment (PPE):** Lab coats, chemical resistant gloves and eye protection must be available for laboratory personnel who handle hazardous chemicals. Wear safety goggles when there is a risk of splash/splatter. Additional [PPE](#) may be required depending on the chemicals or process being used. Use the [EH&S Laboratory PPE Hazard Assessment Guide](#) to help you select the appropriate PPE.
- 4. Training:** PIs are responsible for providing documented laboratory-specific safety training. Ensure that staff receive hazard awareness training for hazardous chemicals used in your laboratory. See Section 7 of the Laboratory Safety Manual for more information. EH&S training must be completed before the start of any work involving the use of hazardous materials. For a list of available courses and to register for EH&S training, see <https://www.ehs.washington.edu/training>. Use the [Training Course Selection Guides](#) to identify training needed. Hazardous chemical training should include but is not limited to:
 - Health and physical hazards of chemicals in use,
 - Permissible exposure limits (if applicable),
 - Signs and symptoms associated with exposure,
 - Appropriate work practices,
 - Required personal protective equipment (PPE),
 - Emergency response procedures, and
 - Methods to detect the presence of a release.

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- 5. Fume Hood Use:** Work in a fume hoods with toxic, volatile, or aerosolized compounds. Perform any weighing, handling of dry powders, reconstituting, and/or diluting in the fume hood. Complete the EH&S online fume hood training to learn how to work safely in a fume hood: <https://www.ehs.washington.edu/training/fume-hood-training-online>.
- 6. Safety Data Sheets (SDSs) and Chemical Inventory:** Maintain a current chemical inventory and location by updating your Safety Data sheets (SDS/MSDS) into the University's MyChem system. The SDS must be available to employees at all times and employees should be trained on their contents. Access MyChem online at <https://www.ehs.washington.edu/chemical/mychem>.
- 7. Chemical Waste Disposal:** Plan ahead for chemical waste disposal. Procedures must be in place to ensure all waste streams are managed appropriately inclusive of solid waste, regulated chemical waste, contaminated media, spill clean-up debris, animal bedding, carcasses and sanitary sewer discharges. Waste management guidance and hazardous chemical collection request is available through EH&S at <https://www.ehs.washington.edu/chemical/hazardous-chemical-waste-disposal>.
- 8. Emergency Preparedness and Spill Cleanup:** Include emergency response procedures and spill clean-up guidance as a part of your SOPs. Display the [Emergency Response Poster](#) in a visible place in the lab, such as near a sink where first aid washing can be performed. Ensure appropriate spill clean-up materials are available. Know where spill kits are located and how best to use them. Additional guidance is available from the EH&S Spill Advice at 206-543-0467 or online at <https://www.ehs.washington.edu/chemical/chemical-spills-laboratories>.