CHEMICAL USE GUIDELINES

1. **Laboratory Safety Manual:** Maintain a copy of the Laboratory Safety Manual (LSM) in the laboratory and include standard operating procedures (SOPs) that reflect current procedures and chemicals in use. Download the most current version of the UW Lab Safety Manual.

2. **Standard Operating Procedures (SOPs):** Have comprehensive SOPs 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. Train employees on SOPs prior to working with agents or processes. Refer to Section 6 of the LSM for information on developing comprehensive SOPs. SOP templates are available online.

3. **Personal Protective Equipment (PPE)**: Conduct all lab work in long pants or long skirts and closed shoes. Have lab coats, chemical resistant gloves and eye protection available for laboratory personnel who handle hazardous chemicals. Wear safety goggles instead of safety glasses 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 assessing, providing, and documenting laboratory safety training, including trainings required by EH&S and lab specific training, for themselves and all lab staff. Ensure that staff working with hazardous chemicals complete the Managing Laboratory Chemicals training as well as any trainings specific to the chemicals used in your laboratory (e.g. formaldehyde and hydrofluoric acid). See Section 7 of the LSM for more information. Training must be completed before the start of any work involving the use of hazardous materials. Use the Training Course Selection Guides to identify training needed. For a list of available courses and to register for EH&S training, visit the EH&S Training webpage.

   Hazardous chemical training should include but is not limited to:

   - Health and physical hazards of chemicals,
   - 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.

5. **Container Labels:** All chemical containers should clearly identify their contents and hazards. If chemicals are transferred into secondary containers or prepared as solutions/mixtures, clearly label the container with the contents and primary hazards. Labels are not required if the container is under direct control of the user and all contents will be consumed during the work shift.

6. **Chemical Storage:** Store chemicals in appropriate locations as determined by their hazard class (e.g. store flammables in flammables cabinet), and clearly label all storage cabinets. Do not store incompatibles in the same location, including chemical waste items. Keep chemical containers on shelves with lips or in closed cabinets. Store corrosives below eye level.

7. **Fume Hood Use:** Work in a fume hood when using toxic, volatile, or aerosolized compounds. Perform any weighing, handling of dry powders, reconstituting, and/or diluting of these chemicals in the fume hood. Complete the EH&S online fume hood training to learn how to work safely in a fume hood.

8. **Safety Data Sheets (SDSs) and Chemical Inventory:** Maintain a current chemical inventory in UW's MyChem system and ensure that all contact and location information is accurate. Upload your Safety Data sheets (SDS/MSDS) into the MyChem system or keep copies available in the laboratory. Have SDSs available to employees at all times and train employees on the documents' contents.

9. **Chemical Waste Disposal:** Chemical waste containers should be compatible with their contents, labeled with a UW Hazardous Waste label, and kept closed whenever not in active use. 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 Hazardous Chemical Waste Disposal.

10. **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 online at 206-543-0467.

Please contact Tracy Harvey at 206.616.3778 / tdy@uw.edu for more information.