

Laboratory Safety Regulations

Humboldt State University•Department of Chemistry

Lower Level

FAILURE TO OBSERVE SAFETY PRECAUTIONS MAY RESULT IN IMMEDIATE DISMISSAL FROM THE LABORATORY AND ASSOCIATED COURSE!

A. General

1. First-Aid kits are available in the following locations: Main stockroom—SA 569; Organic Stockroom—SA 566; Quant Lab—SA 369. Band-aids for minor cuts are available in the main stockroom.
2. Notify your instructor as soon as possible after all accidents and/or injuries regardless of their severity. If you need medical treatment, you will be promptly taken to the Student Health Center. In case of accident after 5:00 pm or on weekends, call the campus police at 911.
3. Perform no unauthorized experiments.
4. Horseplay, pranks, and other acts of mischief are strictly prohibited and may result in immediate dismissal from the laboratory.
5. Work with chemicals only after you have learned about their potential hazards. Then, proceed with caution. There are always risks when working with chemicals so work cautiously and defensively. Material Safety Data Sheets (MSDS) are available in the Main Stockroom and are also available on the Web. See the Chemistry Department web page for MSDS links at http://www.humboldt.edu/~chem_dpt/resources/Resouces.htm
6. You are required to determine the hazards of any chemical before you use it. For example, ask yourself the following:
 - What are the greatest risks from using this chemical? How can I minimize these risks?
 - In what form is this chemical most hazardous? Least hazardous?
 - Can I arrange my work so that it is used in the least hazardous manner?
 - If I have to transport this chemical what is the safest way to do so?
 - How would I respond if the chemical is spilled?

Consult with faculty and/or staff, if necessary, when you are working with any chemical with which you are not intimately familiar. Departmental personnel may not be available for consulting outside of normal working hours. **Remember, if you haven't determined the hazards of the chemicals and procedures you will be doing, you cannot do the experiment!**
7. A list of chemicals and biologic organisms utilized in laboratory courses is available to any student upon request to the instructor. Safety precautions to be taken, as outlined in the department safety regulations, are available to any student upon request to the instructor. Students who are pregnant or who learn of their pregnancy while enrolled in a laboratory course should consult with their health care provider about possible health consequences of exposure to chemicals and biologic organisms on the list. The University makes no representations as to the effects of exposure to these substances on pregnant women or fetuses. The University strongly urges the pregnant student to consult her health care provider prior to enrolling or continuation in the course.
8. A lab apron or long lab coat provides good personal protection against many laboratory hazards.
9. Never work in the laboratory alone.
10. Shoes must be worn in the laboratory at all times. Open shoes or sandals provide no protection from contact hazards and you are not permitted to wear them in the laboratory. Moreover, it is unwise to go barefoot anywhere in the Science Complex.
11. You are allowed to work in the laboratory only during the laboratory times for which you are enrolled, or for which you have gotten written permission from your instructor and approval from the instructor of the laboratory in which you wish to work.
12. Do not attempt to slow down or stop centrifuge rotors with your hands! Always let the centrifuge come to a complete stop before opening the lid to the rotor chamber.
13. Learn the location and use of safety equipment, including the safety shower, eyewasher, fire extinguisher, and fire blanket.
14. Do not force glass tubing into rubber stoppers or rubber tubing. First, make sure that the ends of the glass tubing are fire polished. Then, lubricate both the rubber and the glass with a mixture of water and either glycerol or aerosol OT. Hold the glass tubing as close as possible to the rubber, and then insert the glass with a slow, twisting motion. In addition, protect your hands against possible injury from broken glass by using a towel or piece of cheesecloth.
15. **Wash your hands well before leaving the laboratory.**

B. Eye Protection

1. You are required to wear approved eye protection (safety glasses or goggles) in the laboratory whenever you are doing any experiment or whenever any experiment is being done in the laboratory. Repeated failure to wear approved eye protection will result in dismissal from the laboratory and may result in a course grade of "F." (Eye protection must meet ANSI Z87.1 impact standards and have indirect ventilation splash protection)
2. If you should get an irritating substance in your eye, move quickly to the eye washer and wash your eyes thoroughly for at least 15 minutes. Do not delay; a difference of a few seconds can be crucial for the recovery of your eyes. Have someone notify the instructor of the accident so that you can be taken to the Student Health Center immediately.
3. Sunglasses and dark tinted lenses in glasses or safety glasses are not approved for eye safety in the lab.

C. Fire Hazard

1. In case of fire notify the instructor as soon as possible.
2. Learn the locations of the fire extinguisher(s), the fire blanket, the eye washer, and the safety shower, and learn how to use these devices. Towels wet with water are very efficient at smothering small fires.
3. Confine long hair and loose clothing in the laboratory. Hair is surprisingly flammable.
4. Never store flammable substances in your laboratory drawer or locker **without the approval of, and explicit directions from, your laboratory supervisor.**

D. Contact Hazard

1. If you should spill a corrosive substance on your skin or clothing, wash it off with copious amounts of water for at least 15 minutes. Do not hesitate to use the safety shower if the spill is large.
2. Notify the instructor of any such spillage as soon as possible; he/she will provide any necessary secondary treatment and will arrange for your transportation to the Student Health Center, if necessary.

E. Ingestion Hazard

1. Never eat, drink, or taste anything in the laboratory; this includes food and water. Never drink water from a beaker; instead, use the drinking fountain in the hall.
2. Smoking is not permitted in University buildings.
3. Do not use mouth suction when filling a pipette. Rather, use a suction bulb or an aspirator, and follow the instructions of your laboratory instructor.

F. Inhalation Hazard

1. Experimental operations that generate toxic or noxious fumes should always be performed in a hood.
2. When it is necessary to note the odor of a gas, exercise great care, and follow the procedure demonstrated by your instructor.

G. Waste and Clean-up

1. Excess chemicals must be disposed of; they generally cannot be recycled. Therefore, do not take more of a chemical than is needed for an experiment. You may obtain more later if you find that you have underestimated your needs.
2. All chemicals should be disposed of in an approved manner. Do not put any chemical down the sink unless specifically told to do so. If you are not certain of the proper disposal technique, check with your laboratory instructor or the stockroom/lab manager.
3. Never put solids down the drain, they will clog it. Do not try to wash paper towels, rubber tubing, matches, boiling chips, broken glass etc. down the drain—they will only clog the drain. Put such materials in the appropriate waste containers.
4. In the event of a chemical spill, large or small, consult your laboratory instructor or the stockroom/lab manager as to the appropriate method of clean-up.
5. When metallic mercury is spilled, watch closely to see where the droplets go. Then, avoid stepping on them, and notify the laboratory instructor immediately so that proper decontamination procedures can be instituted.
6. Dispose of broken glass in the appropriate, designated, glass disposal box. Use a dustpan and broom to sweep up pieces of broken glass. Do not pick them up with your hands.
7. Each day, before you leave your lab bench, clean off the bench surface. Remove matches and papers, and wipe down the surface with water and paper towels.

DO NOT HESITATE TO USE ANY OF THE PROVIDED SAFETY FACILITIES IN CASE OF AN EMERGENCY