

THE DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

GENERAL SAFETY RULES

As employees of the Department of Chemistry and Biochemistry, all personnel must follow general safety rules to reduce the risk of accidents in the laboratory. Adopting and following these rules and procedures will improve the overall safety profile in your labs.

1. Carefully plan all lab activities. Practice experiments and demonstrations beforehand; make sure you thoroughly understand the science and procedure before performing a lab activity for the first time. Never perform a demonstration for the first time in front of the class. Evaluate the safety of the demonstration; identify key areas where an accident may occur, and practice, practice, practice!
2. Review the properties and hazards of all chemicals you will be using in the lab by reading the Safety Data Sheets (SDS) and all applicable warnings.
3. Reduce exposure to hazardous chemicals. Avoid contact of all chemicals with eyes and skin, and pay special attention to respiratory irritants and inhalation hazards, where the “immediate effects” may not be obvious.
4. Do not underestimate chemical hazards and risks – few chemicals are without any potential hazards. Even for chemicals with no known hazard, exposure should be kept to a minimum.
5. Read all chemical labels prior to use.
6. Provide a basic set of safety rules for all students and explain the rules to the students. Review the safety rules frequently and enforce all rules consistently. Demand compliance!
7. Wear appropriate eye protection at all times and enforce the school’s goggle policy. The simplest policy will be the most effective – “goggles must be worn at any time chemicals, heat, or glassware are used in the laboratory”.
8. Train students on how to use all safety equipment in the laboratory (e.g., eyewash, safety shower, fire extinguisher, etc.). Show all students and employees where the safety devices are located so they can be quickly found and used in an emergency.
9. Only authorized personnel should be allowed in the chemical storeroom. The door to the chemical storeroom should be locked at all times.
10. Wear appropriate personal protective equipment, including closed-toed shoes, long pants, lab coats and shirts with sleeves, at all times. This is especially important when you are working in the lab.
11. Develop good “chemical hygiene” practices and habits. Never eat in the lab or drink out of laboratory glassware. Always wash your hands thoroughly before leaving the lab area.
12. When leaving the lab, even for a short period, make sure the prep area and laboratory doors are locked. You must make every effort to prevent theft.
13. Know appropriate emergency procedures for a chemical spill, fire, injury, and power failure.
14. Know and understand the first aid policy. If an accident occurs and you don’t know what to do, call 911 without hesitation.
15. Know where a telephone or some other means of emergency communication is located.
16. Do not block fire exits. Keep all aisles clear. Have an alternative evacuation route in the event your primary route becomes blocked.
17. Practice your emergency plans.
18. Know where and how to use master utility controls to shut off gas, electrical, and water supplies.
19. Do not operate electrical equipment with wet hands.
20. In the event of an accident, when time allows, fill out an accident report describing the event in detail.