

STUDENT SAFETY IN THE CHEMISTRY AND BIOCHEMISTRY LABORATORY

Prepared by CSUEB Department of Chemistry and Biochemistry

1. In order to minimize the possibility of accidents and injuries while attending chemistry laboratory classes, each student is expected to conform to the following requirements:
2. Wear eye protection at all times. Contact lenses are not adequate eye protection. If you wear prescription glasses, wear eye protection over them when you are at risk (e.g. when you or your neighbors are pouring, heating, or manipulating chemicals).
3. Know the locations of, and method of using the eyewash, safety shower, fire extinguisher, and fire blanket.
4. Be prepared to take the following actions in the event of an accident:
5. Spills of chemicals or solutions on skin or clothing: wash freely with water.
6. Acid spills should then be neutralized with the sodium bicarbonate provided; caustic
7. (basic) spills, with boric acid, or use the Spill Kit. All are located behind the blackboard.
8. Chemical spill in the eyes: Wash for fifteen minutes, while holding eyes open. Remove contact lens.
9. Burns (from heat): Apply no ointments. Immediate immersion in cold water for several minutes will lessen the pain and speed recovery. No direct contact with ice.
10. Clothing fires: assist person to safety shower if nearby, or smother fire with fire blanket or other more readily available coat, sweater, etc. if distant from the safety shower or otherwise immobile.
11. Be alert for the possible side effects of exposure to chemicals: wash thoroughly any areas suspected to have been in contact with chemicals. In the event of faintness, inform the lab instructor. Leave the laboratory for fresh air and sit or lie down if in danger of falling.
12. Report any accident to the lab instructor immediately. If the lab instructor is temporarily out of the room, report to the stockroom, SC S418.
13. Be aware that any person leaving the laboratory to go to the Student Health Center for medical attention must be accompanied by another person.
14. Refrain from bringing any food or drink (including bottled water) into the laboratory.
15. Dress in a manner consistent with laboratory safety: Restrain loose clothing, especially sleeves. Wear shoes that cover the tops of feet. Gather and confine long hair. The use of a laboratory coat is advised.
16. Perform experiments as instructed and with the amounts prescribed. Unauthorized experiments are strictly prohibited.

17. Review each experiment before beginning and be aware of special hazards. Look up or ask lab instructor about the properties of unfamiliar chemicals.
18. Refrain from and discourage horseplay or pranks.
19. Work in the laboratory only during the scheduled hours; no one should be working alone in a laboratory.
20. Ensure that the correct chemical is used. The safest practice is to read every label at least twice. Unused chemicals must never be returned to reagent bottles. Reagent- bottle stoppers are not to be laid inside-edge-down on counter tops.
21. Treat all chemicals as potentially hazardous. Chemicals should be smelled with caution, and never tasted.
22. Pour mineral acids into water, never water into acids.
23. Pipette liquids with the use of suction bulbs, never by mouth.
24. Use fume hoods when handling substances that produce noxious gases or vapor.
25. Dispose of chemical wastes properly: Be cognizant of and follow any instructions given for specific cases. Use appropriate receptacle:
26. Chemical waste jars: use as labeled Waste-paper baskets: paper only Broken Glass Box: glass only.
27. Report a clogged sink to the instructor or stockroom. Do not attempt to clear it yourself.
28. Report a mercury spill (including a broken thermometer) to the instructor or stockroom. Do not attempt to clean it yourself.
29. Use proper procedure when inserting thermometers or glass tubing into stoppers: fire-polish tubing ends, select tubing (thermometer) size barely larger than hole size, use glycerol or water lubricant. Request assistance from your instructor if more than slight pressure appears necessary for insertion.
30. Turn off burner when not in use and never leave one unattended.
31. Maintain an uncluttered working area. Clean up any chemical spills immediately. Only you know what you spilled. Leave work area clean for next student.
32. Examine glassware for cracks and never use cracked glassware.
33. Sign and return to the instructor the AGREEMENT OF COMPLIANCE form.

I have read and understood the above Safety Rules and agree to abide by them.

Signed _____ Date _____