

## Appendix F3

### STUDENT SAFETY IN THE CHEMISTRY AND BIOCHEMISTRY LAB

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:

1. 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—when anyone is pouring, heating, or working with chemicals.
2. Know the locations of and method of using the eyewash, safety shower, fire extinguisher, and fire blanket.
3. Be prepared to take the following actions in the event of an accident:
  - a. Spills of chemicals or solutions on skin or clothing: wash freely with water.
  - b. Acid spills should then be neutralized with the sodium bicarbonate provided; caustic (basic) spills should be neutralized with boric acid. For organic spills, use the Spill Kit. All are located behind the blackboard.
  - c. Chemical spill in the eyes: Wash for fifteen minutes while holding eyes open. Remove contact lens.
  - d. Burns (from heat): Do not apply ointment. Immediately immerse in cold water for several minutes to lessen the pain and speed recovery. Do not use ice.
  - e. 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.
  - f. 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.
  - g. Report any accident to the lab instructor immediately. If the lab instructor is temporarily out of the room, report to the stockroom, SC S418.
4. Be aware that any person leaving the laboratory to go to the Student Health Center for medical attention must be accompanied by another person.
5. Do not consume any food or drink (including bottled water) in the laboratory.
6. Dress consistent with lab safety: Restrain loose clothing, especially sleeves. Shoes must cover the tops of feet. Tie back long hair. A lab coat is advised.

7. Perform experiments as instructed and with the amounts prescribed. Unauthorized experiments are strictly prohibited.
8. Review each experiment before beginning and be aware of special hazards. Look up or ask lab instructor about the properties of unfamiliar chemicals.
9. Refrain from and discourage horseplay or pranks.
10. Work in the laboratory only during the scheduled hours; no one should be working alone in a laboratory.
11. 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.
12. Treat all chemicals as potentially hazardous. Chemicals should be smelled with caution and never tasted.
13. Pour mineral acids slowly into water, never water into acids.
14. Pipet liquids with the use of suction bulbs, never by mouth.
15. Use fume hoods when handling substances that have noxious gases or vapor.
16. Dispose of chemical wastes properly: Be cognizant of and follow any instructions given for specific cases. Use appropriate receptacle.
17. Use the proper chemical waste jars. Waste-paper baskets are for paper only. The broken glass containers are for glass only.
18. Report a clogged sink to the instructor or stockroom. Do not clear it yourself.
19. Use proper procedure when inserting thermometers or glass tubing into stoppers: use only polished tubing, select the size just slightly larger than the hole size, use glycerol or water as lubricant. Request assistance from your instructor if more than slight pressure appears necessary for insertion.
20. Turn off the microburner or hotplate when not in use. Never leave it unattended.
21. Maintain an uncluttered working area. Clean up any chemical spills immediately. Inform/ask the lab instructor if you need assistance or are uncomfortable cleaning up the spill yourself. Only you know what you spilled. Leave work area clean for the next student.
22. Examine glassware for cracks and never use cracked glassware.
23. Sign the AGREEMENT OF COMPLIANCE form provided.

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

Name (print): \_\_\_\_\_ Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name of class: \_\_\_\_\_