CHEMICAL LABORATORY SAFETY FOR CHEMISTRY LABS
Michigan Technological University-Department of Chemistry
RULES, REGULATIONS AND SAFETY TECHNIQUES

1. Do not enter the teaching laboratory until an instructor or supervisor is present. Guests are not allowed in the lab. The General Chemistry prep room, Rm 514, is off limits to students.

2. On the first day of lab, determine the location and use of all emergency and safety equipment: eye wash, safety shower, and fire extinguisher. Ask your instructor if you are uncertain. Locate the nearest emergency exit and telephone. Know the emergency evacuation route (posted on the lab door) and emergency telephone number (1-2-3).

3. Wear the prescribed safety eyewear at ALL times while in the lab, even during clean up. Contact lenses are not recommended.

4. Wear clothing that provides the most protection. A lab coat or apron is recommended. Shorts, mini-skirts and sandals are not allowed. Confine long hair and sleeves when working. (In spite of all precautions, accidents do happen. Do not wear your favorite clothing to lab.)

5. Do only the assigned experiment. Never carry out non-scheduled experiments.

6. In case of chemical contact with skin or eyes, flush affected area with water for 15 minutes. Use faucets, safety showers or eye wash, as necessary. Remove all contaminated clothing immediately.

7. Never eat, drink or taste anything (food or chemicals) while you are in the laboratory. Don't place fingers, pencils, pipets, etc. in your mouth.

8. Report all accidents or injuries to your instructor immediately, even seemingly minor ones.

9. Always avoid unnecessary hazards. Keep working surfaces clean at ALL times. Do not sit or lean on bench surfaces. Keep the floor clean of tripping hazards. Jackets and bookbags should be stored on the coat racks. Stools and chairs are not permitted in the aisles. Drawers should be closed except when removing your equipment.

10. Wash your hands and arms thoroughly before leaving the lab.

11. Read the labels on reagent bottles to make sure you have the right reagents. (Report empty reagent bottles to your instructor.)

12. Do not return excess reagents to stock containers; share with a classmate or dispose of it properly.

13. Dispose of waste properly. This means:

   Broken glass - glass disposal container (EXCEPTION: broken mercury thermometers must be reported to your instructor for proper disposal. See #14.

   Water-soluble liquids - flush down sink.

   Paper products - wastebasket.

   Solid wastes and water-insoluble waste - properly labeled waste containers. Do not throw solid materials into the sink.

   If you are uncertain of the proper waste disposal, consult your instructor.

14. Report all chemical spills immediately and clean up the spill as directed by your instructor. Acid and base spills should be cleaned up with solid sodium bicarbonate (baking soda) before wiping
up with a damp sponge. Broken mercury thermometers are treated as a chemical spill and must be reported to your instructor for proper disposal.

15. Do not test odors by direct inhalation from the container. Fan the vapors gently towards your nose.

16. Always add concentrated acid to water and acids to bases. Pour slowly while stirring the mixture constantly.

17. Always use a suction bulb (never your mouth) when filling a pipet.

18. Do not insert pipets directly into reagent bottles. Transfer an approximate amount into a beaker or other container.

19. Do not force glass and/or thermometers into rubber stoppers. Always lubricate the hole in the stopper with glycerin or soapy water and protect your hand with a towel when inserting tubing or thermometers.

20. Never use an open flame (gas burner) in the vicinity of flammable and never leave a lighted burner unattended.

21. Return all equipment clean and to its proper location. Do not put common equipment in your drawer.

Hazard Communication Standard
(Material Safety Data Sheet, MSDS)

By signing your check in card, you are stating that you are aware that you have a "right to know" all safety information contained in the manufacturers Material Safety Data Sheet (MSDS) for any chemical. You can obtain this information by requesting a copy of the MSDS from Chem Stores, in Room B002, Chemical Sciences & Engineering Building.

EMERGENCY RESPONSE

1. Telephone 1 2 3 for fire, ambulance, medical assistance or police.

2. Occupational Safety & Health Services: phone 2118

3. Department of Chemistry Office: phone 2048

The safety information on this sheet is also available in the introductory pages of your General Chemistry Laboratory Manual.