Responsibility

Individuals who work in a laboratory are required to be adequately informed about the physical and health hazards present in the laboratory, the known risks, an what to do if an accident occurs. Every laboratory worker must be trained to know the location and proper use of available personal protective clothing and equipment. The laboratory supervisor is responsible for providing information about any hazards present in the lab. This information must be provided at the time initial assignment and prior to any assignments involving new potential chemical exposure situations. The following lists the information which should be provided by the lab supervisor:

• Lab specific procedures and training for all hazards in the lab.
• Awareness of the N.B. Occupational Health & Safety Act and Regulations.
• The location and availability of known reference material on the hazards, safe handling, storage, and disposal of hazardous chemicals found in the laboratory.
• The permissible exposure limits (PEL) for OSHA regulated substances or recommended exposure limits for other hazardous chemicals where there is no applicable OSHA standard for OSHA Permissible Exposure Limits of some common laboratory chemicals.
• Signs and symptoms associated with exposure to hazardous chemicals used in the laboratory.
• Methods and observations that may be used to detect the presence or release of a hazardous chemical.
• The physical and health hazards of chemicals in the work area.
• The measures lab workers can take to protect themselves from these hazards, including specific procedures the lab supervisor and/or safety coordinator has implemented to protect personnel from exposures to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

Lab workers must be trained when new chemical hazards are introduced into their workplace, or when new hazards are shown on updated Material Safety Data Sheets (MSDS), as well as upon reassignment to different workplaces that involve new chemical hazards or protective measures.

Please see the **Safety Handbook** pages for more information on the following:

Policies & Procedures -
• Internal Accident Reporting
• Fire
• Medical Emergencies
• First Aid
• Flammable Liquids
• Corrosive Materials
• Toxic Materials
• Health & Safety

Laboratory Safety Guidelines

1. Be familiar with your departmental safety committee and its members.
2. Discuss your safety concerns with your supervisor or seek advice from the safety committee which meets regularly to discuss problems and seek solutions.
3. Report all accidents or near misses to your supervisor and complete the UNB Accident Report Form.
4. Encourage students and fellow staff members to develop a concern for their own safety and that of others.
5. Evaluate work for specific hazards and for minimizing the risk of injury.
6. Provide incentive to students and staff for safety performance.
7. Read the appropriate safety manuals. Students must be familiar with the laboratory's safety rules, staff with the UNB Safety Handbook, users of radioactive materials with the UNB Radiation Safety Manual.
8. Conduct periodic laboratory inspections to identify and correct hazardous conditions and unsafe practices.
9. Take opportunity to discuss the results of inspections and aspects of laboratory safety with staff and students.
10. Make learning how to be safe an integral and important part of the science education process.
11. Include in every pre-lab discussion consider-ations for environmental health and safety.
12. Do not work alone in any laboratory without prior knowledge of your supervisor or advising the Security Department.
13. Do not run experiments unattended unless they are fail-safe.
14. When conducting experiments with hazards or potential hazards, ask yourself these questions:
. "What are the hazards?"
. "What are the worst possible things that could go wrong?"
. "How will I deal with them?"
. "What are the prudent practices, protective facilities and equipment necessary to minimize the risk of exposure to the hazards?"
15. Review accidents in-house to avoid re-occurrence.
16. Store only minimum amounts of flammable liquids in each laboratory. Maximize container size 5 L.; maximum volume 50 L.
17. Do not pipette by mouth.
18. Do not smoke, eat, or drink in the laboratory.
19. Do not store food in chemical refrigerators.
20. Be familiar with procedures for such dangers as fire, explosion, poisoning, chemical spill, vapor release or personal contamination.
21. Read the 'IN CASE OF FIRE' poster next to every pull station and posted prominently on bulletin boards in departments.
22. Store acids and bases separately. Store fuels and oxidizers separately.
23. Maintain a chemical inventory to avoid purchasing unnecessary quantities of chemicals.
24. Use warning signs to designate particular hazards.
25. Maintain good housekeeping practices in all working areas.
26. Develop specific work practices for individual experiments, such as those that should be conducted only in a fume hood or involve especially hazardous chemicals.

27. Acquire appropriate safety equipment (spills, PPE, fire).
28. Use safety glasses and lab coats in all laboratories. No open toed shoes permitted.
29. Use appropriate personal protective equipment - goggles, face shields, gloves, lab coats, and bench top shields. Many hazardous experiments should be done in a fume hood.
30. Be familiar with the location of fire extinguishers, safety showers, eye-wash facilities and fume hoods in each laboratory.
31. Access safety resources (department safety library, main library, Internet or supervisor).
32. Provide guards on all vacuum pumps and secure all compressed gas cylinders.
33. Be familiar with the location of the nearest First Aid kit and the F.A. trained staff in your area.
34. Ensure MSDS are readily available for all chemicals in use.
35. Require ground plugs on all electrical equipment. Ensure electrical cords are not damaged.
36. Label all chemicals to show nature and degree of hazard (WHMIS, TDG).
37. Date chemicals when purchased and discard after predetermined maximum periods of storage.
38. Follow procedures for the safe and environmentally acceptable disposal of lab wastes (paper, glass, sharps, chemical, radioactive, biological).
39. Store flammable chemicals in fire-rated facilities. Most departments have fire-rated central storage rooms and/or flammable storage cabinets in labs, where required.
40. Store odoriferous chemicals in a well ventilated area but do not clutter fume hood with chemicals.