Hazard Communication
The Hazard Communication Standard was developed to protect employees when handling or using hazardous chemicals. The standard states that employees have the right to know about the hazards of the chemicals and products with which they work and to promote a safe and healthy workplace. Applicable regulations are OSHA 29 CFR 1910.1200; Hazard Communication Standard (HCS) or Right to Know (RTK) regulation; the State Department of Commerce; and the Environmental Protection Agency (CFR Part 370; Community Right to Know Standard (SARA) and Emergency Plan. Each state, under the authority of the Department of Commerce, has adopted a hazard communication standard identical to the federal standard.

The Right-to-Know Law requires a written Hazard Communication Program (HCP) that communicates to the employees their rights under the regulation and describes how the program is administered at their workplace. The HCP can be divided into five parts:

1. Written program
2. Hazard inventory and hazard determination
3. Material Safety Data Sheets (MSDSs) for all chemicals
4. Labeling of all hazardous chemicals and other forms of warning signs
5. Informing and training of employees

Written Program
The written hazard communication program which the chemical hygiene plan is part of must be available to all employees / students. A poster explaining the employees' Right-to-Know Law must be posted and visible to all employees /students. The Right-to-Know posters are available from ones State department or a commercial supplier.

Hazardous Chemical Inventory
The chemical and safety officer or laboratory supervisor is required to maintain an inventory of all hazardous chemicals present in each department and this list is to be updated as necessary. The inventory is part of the HCP and must identify each chemical by the primary name on the label and the manufacturer. In addition, the inventory must identify the location of the chemical and the quantities on hand. The master chemical inventory and MSDS lists will be updated periodically and retained for a period of thirty (30) years.

Labeling
All chemicals are to be labeled correctly with the chemical identity, appropriate physical and health hazard warnings and the name and address of the manufacturer, importer or other responsible party (OSHA 29 CFR 1910.1200 [d] [2]). Labels and other form of warning must be legible and in English. When chemicals are transferred to another container, all label information must be placed on the new container and the concentration of the working solution if applicable. All bottles and containers even those with cleaning solutions must be identified by name on the label. Incoming chemicals must not have their labels defaced in any way or removed unless the container is immediately relabeled with the appropriate information.

Secondary containers will be labeled with the trade and/or chemical name and hazard warning information. Chemicals stored in bulk quantities or storage tanks require adequate labeling while storage tanks or drums can be labeled collectively rather than individually as long as they are not removed from the labeled area and if the hazards are the same.

Signage
The laboratory and chemical storage areas must have correct signage to identify hazardous areas. This identification of hazardous materials must be reviewed and updated annually by the safety officer and documented in the safety audit. The NFPA 704 hazard placard (see Appendix D) should be placed on the doors of areas that contain hazardous materials. Hazard signs for the laboratory should include radioactive, biological, and fire hazards.

OSHA requires color-coded signs at eyewash stations, safety showers, fire extinguishers and emergency exits. All refrigerators/freezers containing hazardous materials, chemical storage cabinets, equipment use for biological material and radioactive areas must have hazardous warning signs.

Waste containers for biological waste should be red with a clearly visible biohazardous sign on the outside. Other containers which require color-coded signage include chemotherapy waste containers (yellow) and recycled containers (normally blue). See Appendix D for examples of hazard warning signs.

Training
All employees/students will be provided with information and training on hazardous chemicals and this can be conducted in three stages. The first two stages are mandatory and the third should be conducted within a three year period.

The initial stage is part of orientation for new hires (and new students where applicable) and must include general information about chemical safety and the Right-to-Know Law. The second phase is conducted by the chemical and safety officer or supervisor in the workplace and includes, but is not limited to:

a. Identification of all chemical hazards in the workplace.
b. The location and availability of the HCP, chemical inventory, MSDS, the chemical hygiene and emergency response SOP's.
c. Explanation of the hazard labeling requirements, the NFPA Hazard Rating System and the contents of the MSDS and how to use this information.
d. Measures employees are to take to protect themselves, instructions on safety equipment and the correct use of PPE's.

The last stage is an annual up-date on new hazardous chemicals or procedures and a refresher on safe chemical handling and emergency response.

All training shall be documented and maintained in the employee/student's file. Appendix E is an example of a certificate that can be used to verify employee training.

Community Right-To-Know Emergency Planning
Laboratories and research departments must comply with the Environmental Protection Agency's (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA) requirements. Local and state organizations may request information about the presence of hazardous chemicals in your laboratory. The EPA must be notified in the event the amount of hazardous chemicals in the laboratory equals or exceeds the threshold planning quantity for particular chemicals, and must be notified of the quantities. The local fire department must be notified of the location of hazardous chemicals which exceed reporting quantities and supplied with MSDSs as necessary to ensure a safe and adequate response in an emergency situation.