

Guidance for Lab Specific Chemical Hygiene Training

Who is responsible for providing this training? The PI is responsible for assuring this training is provided. They can provide the training themselves or can delegate a person in their work group to provide the training such as the EHS Representative. For research facilities that are not organized around PI groups, where similar chemicals and processes are used throughout the facility, the training content and delivery can be facility wide.

When should employees be provided this training? It is best to provide this training after researchers have taken General Chemical Hygiene Training. Ideally, they should receive all chemical safety training prior to commencing work in the lab. However, the training will be useful to personnel at any time, and many may be working in the lab already who have not had this type of training. They should be trained as soon as possible.

What is the objective of this training? The objective is to assure personnel working in the lab have a basic understanding of the **specific** chemical hazards that exist in the lab and the procedures and equipment available to protect them from those hazards. This training supplements the General Chemical Hygiene Training that employees are to receive. General and Lab Specific Training together meet the regulatory requirements for compliance with the OSHA Lab Standard (29 CFR 1910.1450).

What specific topics should be covered by this training? The topics covered will depend in part on the nature of the lab and research being done. However, some suggested topics are as follows.

1. Information about physical and health hazards of chemicals used in the lab. Many lab groups use too many chemicals to discuss each one individually so a grouping of chemicals by hazard type may be used. For each group, list the more common or most hazardous chemicals in the lab that belong in that group. Any lab specific procedures established for use of chemicals in a given hazard group should be mentioned. Personnel should be informed of the locations of Material Safety Data Sheets or other information resources available to them for more research on the hazards of specific chemicals they may be working with in the lab. Some typical hazard groups include the following:
 - a. Flammable solvents. (fire and health hazard)
 - b. Non-flammable solvents. (health hazard)
 - c. Acids. Acids can be further divided into oxidizing acids, mineral acids, and organic acids. (Corrosive, reaction hazard, and health hazard.)
 - d. Bases. Corrosive and health hazard. Reaction hazard with acids.
 - e. Cancer causing chemicals.
 - f. Reproductive hazards and mutagens.
 - g. Chemicals with unusual hazards such as perchloric acid, hydrofluoric acid, highly reactive chemicals, highly toxic chemicals, explosive chemicals, water reactive chemicals, air reactive chemicals. (Note: If there are lab specific written SOPS in place for operations or experiments involving use

of highly hazardous materials, these should be reviewed during lab specific training.)

2. Review any lab specific rules for use of the fumehoods.
3. Information about location, use, and maintenance of personal protective equipment to include who is responsible for assuring a stock of this equipment is maintained.
4. Information about location of emergency response equipment such as eyewash, safety showers, spill supplies, fire extinguishers, etc.
5. Procedures established for labeling materials.
6. Information on lab procedures for storing materials.
7. Information on lab specific waste management practices.

How often is this training required? Annually. Note: General Chemical Hygiene Training is only required once.

Is it necessary to document this training? Yes. Keep an outline of the topics covered. Anyone receiving this training should sign a form indicating they have had the training. This form should be sent to the EHS coordinator for your DLC. The EHS Coordinator will assure that the information is entered into the EHS training database. A copy of the training documentation form to be used is available from EHS or your EHS coordinator.

What resources are available to assist those responsible for this training? EHS can help with defining the hazard groups of chemicals in your lab area and assist with compiling information to support your training. To contact EHS, call 2-3477.