



# UNIVERSITY OF DELAWARE

## DEPARTMENT OF ENVIRONMENTAL HEALTH & SAFETY

### LABORATORY SAFETY TRAINING GUIDANCE



Principal Investigators (PI's) and Supervisors are obligated to assure that their staff is appropriately trained and follow all safe work practices. This training must be documented. Training files must be accessible in the laboratory and copies must be sent to the Department of Environmental Health and Safety. PI's and Supervisors can use the Right-To-Know/Chemical Hygiene Plan Training Certificate to document the training. This certificate can be found at <http://www.udel.edu/EHS/chptraining.html>.

This training obligation can be met in a variety of ways:

1. Principal Investigators, Supervisors and Researcher Staff and Students can attend one of the many monthly laboratory safety training sessions that are offered by the Department of Environmental Health and Safety. DEHS offers the following classes once per month:
  - Right-To-Know/Chemical Hygiene Plan Training
  - Toxic Chemical Safety Training
  - Reactive Chemical Safety Training
  - Corrosive Chemical Safety Training
  - Proper Use of a Chemical Fume Hood
  - Hydrofluoric Acid Safety Training
  - Chemical Waste Disposal Training

The training schedule can be found on the Web at <http://www.udel.edu/EHS/ehstrainsched99.html>. Right-To-Know/Chemical Hygiene Training, Corrosive Chemical Safety Training and Chemical Waste Disposal training are also available on the Web, interactively through the Environmental Health and Safety Assistant Online Training Program. Go to <http://ehs.facil.udel.edu:1569/> to access the training. Instruction for the training program is found at <http://www.udel.edu/EHS/ehsonlinetraindrct.pdf>.

These training sessions only cover the basics of chemical safety. Under the requirements of the Chemical Hygiene Plan, PI's and Supervisors must provide chemical and task specific training for their individual groups. Formal documentation of the basic and specific training is imperative in order to limit both University and personal liability. The Right-To-Know/Chemical Hygiene Plan Training Certificate has a space to document this specific training.

2. Principal Investigators and Supervisors can provide this training themselves to their staff. The Chemical Hygiene Plan, Hazardous Materials Safety Manual and the Chemical Hygiene Plan Training Website can be used to assist the PI's and Supervisors develop the training. These resources are found at:
  - Chemical Hygiene Plan: <http://www.udel.edu/EHS/chemhygieneplan.pdf>
  - Hazardous Materials Safety Manual: <http://www.udel.edu/EHS/hazmatman.pdf>
  - Chemical Hygiene Plan Training Website: <http://www.udel.edu/EHS/chptraining.html>
3. The Department of Environmental Health and Safety can provide department wide or individual laboratory group training. Again, this training will only cover the basics of chemical safety. Under the requirements of the Chemical Hygiene Plan, PI's and Supervisors must provide chemical and task specific training for their individual groups. Formal documentation of the basic and specific training is imperative in order to limit both University and personal liability. The Right-To-Know/Chemical Hygiene Plan Training Certificate has a space to document this specific training.



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#### Task and Chemical Specific Training

Principal Investigators and Supervisors must provide laboratory specific training. This training should include the following:

- A formal, documented discussion of the material or process
  - PI's and Supervisors can use the Right-To-Know/Chemical Hygiene Plan Training Certificate to document the training. This certificate can be found at <http://www.udel.edu/EHS/chptraining.html>.
- Review the [Material Data Safety Sheet \(MSDS\)](#)
- Review the appropriate section of the [Chemical Hygiene Plan](#) and the [Hazardous Materials Safety Manual](#)
- Conduct a dry run of the procedure. Consider inviting Environmental Health and Safety, the Departmental Chemical Hygiene Officer or the Departmental Safety Committee for their input.
- Consult with the Departmental Chemical Hygiene Officer and Departmental Safety Committee as appropriate.

Laboratory personnel should always involve their Principal Investigator/Supervisor when they change a procedure or if they have any questions.

Examples of materials or processes that may require special training (not an exclusive list):

- Chemical Carcinogens
- Highly Toxic Materials
- Reproductive Toxins
- Chemical of unknown toxicity
- New Chemicals brought into the laboratory
- Chemicals with unknown toxicity or properties
- Compressed gasses
- Processes/procedures involving pressure (high or low) and vacuums
- Processes/procedures involving open flames
- Heating or boiling liquids
- Explosive reactions or materials
- Use hazardous equipment such as:
  - Autoclaves
  - Centrifuges
  - Chemical Vapor Deposition Units
  - Glove Boxes
  - Large scale Operations
  - Molecular Beam Epitaxy Units
  - Ovens, reactors or furnaces
  - Unattended operations or experiments that proceed after hours (Before 8:00am and after 5:00 pm)