



# THE UNIVERSITY OF MAINE SAFETY AND ENVIRONMENTAL MANAGEMENT

## Chemical Safety

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### General

The goal of The University of Maine Chemical Safety Program is to minimize exposure to hazardous chemicals by ensuring that anyone using chemicals understands the hazards involved and what measures they must take to protect themselves.

Both employees and students may come into contact with chemicals in offices, classrooms or laboratories. No matter what the setting, hazardous chemical exposures have the potential to cause serious harm. Due to the wide variation in hazards associated with different uses and multiple forms of potentially hazardous chemicals, training and supervision must be tailored to each individual classroom, office or laboratory setting.

Hazardous chemicals also have the potential to cause environmental harm. Therefore, State of Maine Regulations and University Policy requires that processes using hazardous chemicals be modified, when practicable, to use less toxic chemicals or produce less toxic byproducts, as long as this does not compromise the quality of research or teaching.

### Regulatory Guidance

Occupational Health and Safety (OSHA) 29 CFR 1910.1450 *Occupational exposure to hazardous chemicals in Laboratories*

OSHA 29 CFR 1910.1200 *Hazard Communication Standard*

38 MRSA Chapter 26 *Toxics Use and Hazardous Waste Reduction Law*

### Requirements

In order to protect human health and the environment and meet multiple regulatory requirements, all activities involving the use of or exposure to hazardous chemicals must be properly managed. All employees, before beginning work with hazardous chemicals, are required to receive training in one or both of the following chemical safety systems:

- Hazard Communication (HazCom) – All non laboratory uses of hazardous chemicals require specific training on the hazards of each chemical (or class of chemicals) used within a work-area.
- Chemical Hygiene (*The Lab Standard*) - Each laboratory, where hazardous chemicals are used, is required to have a written Chemical Hygiene Plan (CHP). Training on this lab-specific CHP must be provided to all employees involved in the laboratory use of hazardous chemicals. *Under agreement with the Maine Department of Labor, shops are also permitted the option of using the CHP system.*

Both CHP and HazCom systems require training in chemical labeling and specific

protective measures that should be taken during chemical use.

At a minimum, all chemical use areas must:

- maintain a current inventory of hazardous chemicals stored;
- maintain Material Safety Data Sheets (MSDS) for all hazardous chemicals used or stored in the area;
- provide immediate access to MSDS and/or technical information on the hazardous properties of chemicals in the area;
- minimize the use of hazardous materials, where practicable, and reduce the generation of hazardous waste.
- ensure that employees and students working with or around hazardous chemicals utilize proper work practices and techniques that reduce the potential for exposure to hazardous chemicals:
  - employees working with hazardous chemicals must be trained in the proper selection and use of personal protective equipment (PPE);
  - employees must be trained to properly label all secondary chemical containers of hazardous chemicals;
  - employees must be trained to take appropriate actions as outlined in their area Chemical Spill Procedure and their department Emergency Action Plans (EAP);
  - eating or drinking in any areas where hazardous chemicals are utilized or stored is strictly prohibited;
- provide specific training for employees on the hazardous chemicals in their area and supervision for students in order to adequately:
  - recognize signs and symptoms overexposure;
  - detect the presence or release of a hazardous chemical;
  - take protective measures to minimize exposures to and releases of hazardous chemicals;
  - understand the labeling of hazardous chemicals that have been transferred to secondary containers;
  - obtain an MSDS and/or other technical information on a hazardous chemical in the area;
  - read and understand MSDS and/or technical information on the hazardous properties of chemicals in the area.

### **Training:**

For employees Chemical Hygiene or Hazard Communication training is typically provided during Department Annual Safety Training.

For students chemical safety training is included in the course curriculum.

### **Responsibilities**

**The Department of Safety and Environmental Management (SEM)** advises the campus community on current regulatory requirements concerning the use of hazardous materials and maintains the University's written "Hazard Communication Program". SEM also periodically audits university compliance with chemical safety policies, including laboratory Chemical Hygiene Plan.

**Supervisors, Managers, Instructors and Department Chairs** are responsible for ensuring that employees and students are familiar with relevant safety programs and work practices in their area. They are also responsible for ensuring that Chemical Hygiene Plan and Hazard Communication training is provided within their area.

**Employees and Students** are responsible for attending required training and completing their work in accordance with applicable procedures as outlined in a Chemical Hygiene Plan or *The University of Maine Hazard Communication Program*.

## Definitions

***Hazardous Chemical:*** a chemical substance or mixture that is a physical or health hazard, which is capable of posing a significant risk (typically these have a Health Flammability or Reactivity rating of 2 or above).

*NOTE: standard household consumer products also fall under the Hazardous Chemical requirements when they are used in a manner that creates greater risk from exposure than in normal consumer use.*

***Material Safety Data Sheet (MSDS):*** OSHA required document containing information about a chemical's hazards. While not standardized, MSDS normally contains information on the safe use of the chemical, exposure information, protective measures, compatibility with other chemicals, waste disposal, and regulatory information.

## For Additional Information

Contact your Department Safety Coordinator or the Department of Safety and Environmental Management at 207/581-4055.

*The University of Maine Hazard Communication Program* MP09002  
 Hazard Communication Guidance MG09002  
 Hazard Communication Training Checklist MF09002  
 Hazard Communication Training Lesson Plan MLP09002  
 Chemical Hygiene Plan Guidance MG09003  
 Chemical Hygiene Plan Training Checklist MF09003  
 Chemical Hygiene Plan Training Lesson Plan MLP09003

## Document History

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