



University of Illinois at Urbana-Champaign

Hazard Communication Plan

Prepared by:
Division of Research Safety
Lab Safety Section
102 Environmental Health and Safety Building
101 S. Gregory Street
Urbana, IL 61801-3070
(217) 333-2755

Campus Safety Commitment

The Hazard Communication (HazCom) Program outlines the University of Illinois at Urbana-Champaign's commitment to compliance with the OSHA Hazard Communication Standard as adopted by the Illinois Department of Labor on 9/17/2007. It provides guidance on how to implement the plan for individual units.

A written hazard communication plan (HCP) is required by federal regulations specified in 29 CFR 1910.1200, which states that each employer is required "to provide information to their employees about the hazardous chemicals to which they are exposed by means of a hazard communication program, labels, and other forms of warning, safety data sheets, and information and training." The Division of Research Safety (DRS) assists units in providing training and in selecting appropriate engineering controls, work practice controls, and Personal Protective Equipment (PPE) to comply with this standard.

The purpose of the Hazard Communication Program is to ensure that:

- Hazardous chemicals present in the work area are properly labeled and identified,
- Employees have access to information on all known hazards of these substances,
- Employees receive proper training on how to prevent adverse effects due to exposure to these substances.

The Hazard Communication Standard applies to any chemical in the work area to which employees may be exposed under normal conditions of use or in a foreseeable emergency.

It does not apply to consumer products as defined in the Consumer Product Safety Act (15 U.S.C.2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.), where the employer can show that it is used in the workplace for the purpose intended by the manufacturer or importer of the product, and the use results in a duration and frequency of exposure that is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended.

Each campus unit shall identify work areas and groups where non-laboratory exposure to chemicals occurs. All units shall implement the campus written Hazard Communication Plan (HCP) provided by DRS and add specific information for each work area or work group. It is the **responsibility of the unit head** to either implement the plan or to appoint a HazCom Coordinator to be responsible for each work area or group. For large units where the unit head does not have direct knowledge of the employee's day-to-day activities, a HazCom Coordinator more familiar with the employee's work should be appointed. The plan shall be available to all employees for review.

Definitions

Campus Unit

Any department, division, center, school, institute, or other U of I unit that employs personnel to perform tasks that might lead to exposure to hazardous chemicals.

Coordinator

A person appointed by the unit head who is responsible for implementing the hazard communication plan in those work areas or work groups assigned to him/her.

Exposure

Exposure or *exposed* means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard and includes potential (e.g., accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g., inhalation, ingestion, skin contact, or absorption).

Foreseeable Emergency

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that could result in an uncontrolled release of a hazardous chemical into the workplace.

Globally Harmonized System (GHS)

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) is a system that defines and classifies the hazards of chemical products and communicates health and safety information on labels and material safety data sheets (called Safety Data Sheets, or SDSs, in GHS). These international standards become effective on June 1, 2015.

Hazardous Chemicals

OSHA defines a hazardous chemical as any chemical or mixture of chemicals classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or a hazard not otherwise classified. This broad definition includes paints, cleaning compounds, inks, dyes, and many other consumer products.

Health Hazard

Health hazards are chemicals classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard.

Physical Hazard

Physical hazards are chemicals classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.

Work Area

A work area is a room (or several connected rooms) or otherwise defined space (e.g., machine shop, glass shop) in which employees handle or are exposed to hazardous compounds.

Work Group

A work group consists of employees who perform similar tasks using similar products (e.g., plumbers, cleaning personnel) and who usually work in multiple work areas.

Unit Head

The unit head should be the person with the greatest authority within the campus unit and, if possible, who also has the greatest direct knowledge and control of the employees' day-to-day activities.

Campus Hazard Communication Plan

1. Hazardous Chemical Inventory

Every work area or work group shall compile, maintain, and update when necessary a list of hazardous chemicals it uses or produces.

The inventory list shall include a product identifier that is referenced on the appropriate SDS, the name of the manufacturer, and the SDS revision date. Substances that are not in containers shall also be included on the inventory list, e.g., welding fumes, carbon monoxide from a fork lift, chemicals contained in pipes in the work area.

The inventory shall be updated when a new product is introduced to the work area. If the new product poses hazards not previously present, affected employees shall receive training on those new hazards before using it. A new product may also require a hazard assessment.

2. Safety Data Sheets (SDSs)

An SDS must be obtained for each hazardous product before it can be used. Distributors and manufactures are required to provide an SDS upon request. The SDS shall be readily available during all work shifts to all employees working in the area where hazardous chemicals are present. Electronic access as alternative to paper copies is permitted as long as no barriers to immediate employee access are created. When a substance is no longer actively used or purchased, its SDS shall be removed from the active file and placed in a file for inactive substances. These shall be maintained for 30 years.

3. Labeling

Original Containers

Chemicals received from manufacturers or distributors are required to be delivered with a label that is compliant with the OSHA Hazard Communication Standard. The label should contain at least the following information:

- Identity of the hazardous chemical(s);
- Appropriate hazard warnings;
- Name and address of the chemical manufacturer, importer or other responsible party.

Chemicals procured on or after December 1, 2015, should come with container labels compliant with the GHS system. Compliant labels contain the following information:

- Product identifier;
- Signal word;
- Hazard statement(s);
- Pictogram(s);
- Precautionary statement(s);
- Name, address, and telephone number of the manufacturer, importer, or other responsible party.

Containers without the original label shall NOT be accepted for use at the U of I.

Original labels shall not be defaced or covered unless the container is completely emptied and cleaned properly. If the original label comes off or becomes illegible, re-label the container using one of the following options:

- Use tape to reattach the original label if it is still present and legible.
- Attach a new original label received from the manufacturer.
- Make a new label and attach it. The label shall include at a minimum:
 - Name of the product,
 - Manufacturer,
 - Hazard warnings as on the original container.

When a container is empty, it may be used for other compatible materials provided it is properly cleaned and relabeled.

Secondary Containers

If a chemical is poured from an original container into another container, this secondary container shall be labeled with at least:

- The name of the chemical,
- Hazard warnings as on the original container

Use a permanent marker that does not dissolve in the chemical, or attach a label that is self-made or received from the manufacturer.

Stationary Containers

Stationary containers such as process containers, chemical baths, or pipes in work areas that contain hazardous chemicals shall be labeled with the name of the chemical and adequate hazard warnings based on the classification of the chemicals. The label shall be easily visible from the work area.

Labels or other forms of warning shall be legible and in English. Other languages may be included as needed.

4. Chemical Hazard Assessment and Personal Protective Equipment

Every work task where workers are potentially exposed to hazardous chemicals, including non-routine tasks, shall be evaluated to determine appropriate measures of protection. The hazard assessment shall be performed by a person knowledgeable about the hazards and the use and limitations of engineering controls and personal protective equipment. DRS will work with the unit to perform the initial assessment related to chemical exposure. If new chemical hazards are introduced to the work area, or if processes are modified in such a way that the exposure changes, a new hazard assessment must be performed. In this case, DRS can be contacted to perform or assist with the hazard assessment. If the hazard assessment determines that PPE is required to protect personnel, the **unit head** is responsible for providing such equipment at no cost to the employees. The OSHA standard 1910.132 on PPE applies. The unit head or HazCom Coordinator shall:

- Communicate the selection decision to each affected employee;
- Select PPE that properly fits each affected employee;
- Enforce the requirement that affected employees use the PPE;
- Ensure that PPE is properly cleaned and maintained;
- Pay for replacement PPE except when the employee has lost or intentionally damaged the PPE.

If the employees provide their own protective equipment, it shall be evaluated for its adequacy, including proper maintenance and sanitation. Defective or damaged PPE shall not be used.

5. Employee Training

All employees shall receive training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new chemical hazard on which they have not been previously trained is introduced into the work area. The training shall be provided during work hours at no cost to the employee. The training consists of a general part and a work specific part. When a unit first enters the HazCom program, DRS will provide the general training and give guidance for the work-specific training. The units are expected to offer refresher training as necessary, to train new employees, and to train on new products as required.

The general part shall include:

- The requirements of the Hazard Communication Standard,
- How to read and interpret an SDS,
- GHS classification and labeling.

The work specific part shall include:

- Location and availability of the unit's written HCP;
- Location of SDSs;
- Workplace labeling system;
- Physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified of the chemicals in the work area;
- Hazards of non-routine tasks and chemicals contained in unlabeled pipes in the work area if applicable,
- Measures employees can take to protect themselves from these hazards;
- Proper use of personal protective equipment:
 - When is PPE necessary;
 - What PPE is necessary;
 - How to properly don, doff, adjust, and wear PPE;
 - Limitations of the PPE;
 - Proper care, maintenance, useful life and disposal of the PPE.
- Emergency procedures;
- Methods and observation techniques to determine the presence or release of hazardous chemicals if applicable.

Following the training, each affected employee shall demonstrate an understanding of the training specified above, as well as the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

Employees shall be retrained when there is reason to believe that they do not have the required understanding and skills outlined above. Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

Retraining is required when changes in the workplace, processes, or types of PPE to be used render previous training obsolete.

The units shall document training for each employee and keep all training records.

Annual Evaluation

The unit head or HazCom Coordinator shall evaluate the Hazard Communication Plan annually to make sure that:

- The latest revision of the campus written plan is implemented;
- Every product in use is listed on the inventory, and an SDS is available;
- The products and procedures evaluated in the hazard assessment have not changed, or a new hazard assessment has been performed;
- Employees have been trained on new hazards and procedures;
- New employees have received training.

Responsibility for Compliance

The campus unit, with the assistance of DRS, shall be responsible for administering this plan. The administrative responsibilities are divided as follows:

The unit head shall:

- Appoint a HazCom Coordinator if the unit head will not serve in that function;
- Implement and maintain a Hazard Communication Plan covering each work area or group within the campus unit;
- Identify, with assistance from DRS, employees to be included in the Hazard Communication Plan;
- Comply with the requirements outlined in this plan;
- Provide required PPE at no cost to employees;
- Maintain all records, such as inventory, training, and hazard assessment certificates;
- Annually evaluate the unit's plan, with DRS assistance.

The Division of Research Safety will:

- Develop the campus Hazard Communication Plan;
- Provide a process for campus units to establish their own specific Hazard Communication Plans;
- Provide guidelines for units to use to identify employees to include in the Hazard Communication Plan;
- Provide initial training for units;
- Provide resources to assist units with ongoing employee training;
- Perform and/or assist with chemical hazard assessment and PPE selection;
- Coordinate any necessary exposure monitoring, with help from unit to identify those areas needing monitoring;
- Provide a central repository for copies of each campus unit's Hazard Communication Plan.

Employees shall:

- Be familiar with the Hazard Communication Standard,
- Read the label of a product before using it,
- Ask the supervisor or contact DRS if unsure about safe work practices,
- Follow all safe work practices as instructed,
- Wear required PPE and maintain it as instructed,
- Report all exposures or near accidents to the supervisor.