

University of Louisville

Hazard Communication Program

Department of Environmental Health and Safety

Modified October 2007

Introduction

The Occupational Safety and Health Administration (OSHA) enacted the Hazard Communication Standard 29 CFR 1910.1200 requiring evaluation of hazards of all chemicals and transmission of this information to employers and employees. The regulation stipulates employers develop a hazard communication program that describes the methods used to convey this information to employees, including the use of safety data sheets, labeling, and training. The University of Louisville Hazard Communication Program describes the methods used to provide employees with hazardous chemical information.

Purpose

The purpose of the University of Louisville Hazard Communication Program is to provide all University employees with information concerning hazardous chemicals in the workplace and to describe transmission of that information to employees. The Program establishes rights and responsibilities for departments, supervisors, and employees. Implementation requires that each department, unit, or group covered under this Program develop a Unit-Specific Plan for the chemical hazards present in that work area.

A template for a Unit-Specific Plan is available. The responsible supervisor will need to refer to this document in conjunction with the Unit-Specific Plan to ensure compliance with all aspects of the Program.

Scope

This Hazard Communication Program applies to all University of Louisville departments, units, groups, and all employees at risk of occupational exposure to hazardous chemicals present in the workplace.

Exemption: Laboratories fall under the OSHA Laboratory Standard and are subject to the University of Louisville Chemical Hygiene Plan requirements. Contact DEHS (852-6670) for additional information.

Program Responsibilities

University of Louisville

It is the responsibility of the University of Louisville, as an employer, to take every reasonable precaution to provide a safe work environment.

Department of Environmental Health and Safety

The Department of Environmental Health and Safety (DEHS) is responsible for the development and administration of the University of Louisville Hazard Communication Program. DEHS will:

- Serve as the University authority and source of information for the Program
- Develop and evaluate the written University of Louisville Hazard Communication Program
- Develop and provide University of Louisville Hazard Communication training
- Provide consultation, exposure evaluation, industrial hygiene surveys, workplace assessments, or other services as needed or requested by University employees
- Evaluate the ongoing effectiveness of the Unit-Specific Plans

Departments

Departments containing employees with potential exposure to hazardous chemicals are responsible for providing the necessary resources, personnel, equipment, and financial support to ensure proper implementation of the Program. Departments will:

- Assign the Responsible Supervisor(s) for work areas
- Provide necessary resources to implement the Program effectively
- Provide appropriate engineering controls as feasible
- Conduct an annual review of the Program
- Ensure continuity of recordkeeping, especially when supervisors leave or are reassigned

Responsible Supervisor

The Responsible Supervisor is ultimately responsible for ensuring completion of and employee adherence to the Unit-Specific Plan. While the supervisor is responsible for implementing plan elements, he/she can delegate tasks to other capable employees. Responsible Supervisors will:

- Complete the Unit-Specific Plan for their area and employees
- Identify and list all hazardous chemicals in a chemical inventory
- Maintain safety data sheets (SDS) for each hazardous chemical in the work area
- Ensure all hazardous chemical containers are properly labeled
- Identify employees who may be exposed to hazardous chemicals in their work area
- Provide appropriate protective measures, including engineering controls and/or personal protective equipment (PPE), for each employee
- Ensure each employee receives Hazard Communication training for general and unit-specific chemical hazard information
- Provide ongoing training when new chemical hazards are introduced and when new employees may encounter chemical hazards
- Ensure employees are informed of chemical hazards they may encounter due to contractor(s) activities in the area, and inform contractors of chemical hazards they may encounter on University property
- Conduct periodic worksite evaluations and recordkeeping reviews as necessary to ensure that the written plan is effectively implemented

Employees

All employees performing work with hazardous chemicals accept a responsibility for safe operations. Employees also have the responsibility to inform the supervisor of working conditions, accidents, and work practices they believe are hazardous to health and safety. Employees will:

- Attend Hazard Communication training
- Use hazardous chemicals in accordance with instructions on the label and SDS
- Label containers appropriately when transferring hazardous chemicals to secondary containers
- Practice safe work habits
- Notify supervisor of unsafe conditions

Chemical Inventory

The supervisor or designee is responsible for identifying and listing all hazardous chemicals used or generated in their work area in a chemical inventory.

Preparing a Chemical Inventory

Identify hazardous chemicals in containers, including pipes, processing units, and tanks. The Program covers chemicals in all physical forms: liquids, solids, gases, vapors, fumes, and mists. Contaminants generated in the workplace, such as welding fumes or sawdust, should be included in a chemical inventory.

Identifying Hazardous Chemicals in the Work Area

A key component of the Program is differentiating between hazardous and non-hazardous materials.

Manufacturers and importers are primarily responsible for evaluating physical, chemical, and health hazards of their products. If a product is determined to be hazardous, the manufacturer must label the container with hazard information. These products should always be included in a chemical inventory.

OSHA defines a hazardous chemical as any chemical that is a potential physical or health hazard.

- Physical hazard: a chemical that is combustible, explosive, corrosive, an organic peroxide, an oxidizer, pyrophoric, unstable/reactive, water-reactive, or a gas under pressure.
- Health hazard: any chemical that causes acute or chronic health effects upon exposure, including carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes.

Exempt Materials

The OSHA Standard exempts some materials. These items do not need to be included on a chemical inventory.

- Hazardous waste
- Any consumer product used as intended by the manufacturer and in the same manner as a typical consumer
- Objects that, under normal conditions, do not release amounts of a hazardous chemical, including stainless steel, vinyl upholstery, tires, adhesive tape
- Wood or wood products that would not be processed
- Food or alcoholic beverages, intended for retail sale or personal consumption
- Any drug in solid final form, for direct administration to patients/self or packaged for sale to consumers
- Cosmetics, packaged for sale to consumers or for personal use
- Tobacco or tobacco products
- Nuisance particulates
- Ionizing and non-ionizing radiation
- Biological hazards

Safety Data Sheets (SDS)

The supervisor or designee will ensure that SDS are available to all employees, on all shifts, for every hazardous chemical in the work area. The supervisor or designee will determine the method for organizing and storing the SDS. Online search databases are an acceptable resource for SDS.

SDS must contain the following information:

- Product or chemical identity

- Chemical and common names of hazardous substances, including mixtures
- Name, address, and phone number for hazard and emergency information
- Physical and chemical properties and characteristics
- Physical hazards
- Health hazards and symptoms of exposure
- Potential routes of exposure
- OSHA Permissible Exposure limits (PEL), ACGIH Threshold Limit Values (TLV)
- Carcinogenicity
- Precautions for safe handling and use
- Control measures
- Emergency and first aid procedures

Employees should not use any hazardous chemical before obtaining and understanding information on the SDS.

Labels

OSHA requires labeling on all hazardous chemicals that conveys the appropriate hazard information to employees. The supervisor or designee will ensure that every container entering the work site bears the required label. The label must include:

- Identity of the chemical (full chemical name or trade name)
- Appropriate hazard warnings, including target organ effects
- Name and address of the manufacturer, importer, or distributor

Hazard Warnings and the Global Harmonization System (GHS)

Hazard warnings on labels may consist of words or symbols that provide the specific physical or health hazards, including target organ effects, of the chemicals in the container.

The Global Harmonization System (GHS) uses standardized pictograms to convey specific hazard classes of each chemical. Examples of pictograms are below. Contact DEHS (852-6670) for additional information regarding GHS pictograms.



Products that are subject to EPA regulations (insecticides, fungicides, rodenticides, disinfectants) and FDA regulations (food, food additives, drugs) are labeled according to those agencies regulations.

Primary and Secondary Containers

The primary container is the container in which a manufacturer or distributor ships a chemical. This container must display all the required hazard information pertaining to the chemical.

Chemicals may be transferred to secondary containers if:

- The container is compatible with the chemical.
- The container is can be properly closed.
- The container is labeled with the same full chemical name and hazard classes as the primary container.

Labeling is also required for in-house containers such as pipes, storage tanks, and process vessels containing hazardous chemicals. Signs, placards, and operating procedures are alternative methods for labeling these special types of containers.

Non-Routine Tasks and Emergencies Involving Hazardous Chemicals

Employees may be required to perform non-routine tasks (infrequent cleaning operations, maintenance activities, special projects) in which they may encounter hazardous chemicals. Prior to the start of any non-routine task, the supervisor or designee will provide training to employees regarding the specific hazards of the materials in use. The hazard information will include engineering controls, operating procedures, PPE, and other safety measures including ventilation, air monitoring, confined space entry procedures, buddy systems, lock out tag out, and emergency response procedures.

Outside Contractors

There is a reciprocal responsibility between the University and the contractor to fulfill the requirements of the OSHA Hazard Communication Standard.

It is the responsibility of the University supervisor or overseeing designee to provide the contractor with information about the hazardous substances to which they may be exposed while on University property, including protective measures to be taken, safe handling procedures, and the location and availability of SDS. The University employee should also advise the contractor of his/her responsibility to provide appropriate hazard information for all hazardous chemicals brought onto University property.

Building-Related Hazards

Asbestos: Many building materials prior to the 1980s contain asbestos fibers, including pipe insulation, floor tiles, ceiling tiles, drywall, joint compound, laboratory cabinet tops, transite board, glues, mastics, and caulks. When left intact and undisturbed, these materials do not pose a health risk to building occupants; if disturbed and inhaled in sufficient quantity, asbestos fibers may cause cancer and lung disease. Before renovating or disturbing any building materials, contact Physical Plant (852-6241) for asbestos concerns.

Lead-based paint: Lead-based paint (LBP) may be present on surfaces in pre-1978 buildings. The primary concern for adult exposure is fine dust generated by power sanding or saw cutting, where inhalation in sufficient

quantity can affect the blood or nervous system. If renovation of a painted surface may create fine dusts, contact Physical Plant (852-6241) for additional information.

Silica: Very fine dusts of crystalline silica may cause lung disease. Extensive use of power tools on building materials must include dust control measures. In addition, only use vacuums with high efficiency filters to clean up residual dust.

Training

Each employee who works with or is potentially exposed to hazardous chemicals will receive initial and periodic training on the OSHA Hazard Communication Standard and the safe use of those hazardous chemicals.

The supervisor or designee is responsible for providing the appropriate general and unit-specific training and maintaining documentation of all training for each employee.

General Hazard Communication Training

DEHS will provide General Hazard Communication training for University employees on the following:

- Summary and explanation of the OSHA Hazard Communication Standard
- Explanation of the University of Louisville Hazard Communication Program
- Chemical and physical properties of hazardous materials
- Physical hazards of chemicals
- Health hazards of chemicals
- Methods for detecting the presence or release of chemicals
- Use of engineering controls, personal protective equipment, and emergency equipment and procedures
- Pre-planning for non-routine tasks, spills, and emergencies
- SDS and container label information and accessibility

Unit-Specific Training

The supervisor or designee must provide current information for hazardous chemicals to all employees working in the supervised area. Training is required prior to the start of assigned work in a work area. Introduction of new hazardous materials into a work area also requires training. Unit-specific training will include:

- A review of the written Unit-Specific Hazard Communication Plan
- Location and accessibility of SDS, chemical inventory, and written plans
- Hazards of the specific materials in use
- Use of engineering controls, personal protective equipment, and emergency equipment and procedures
- Location of safety showers and eyewash stations
- Explanation of routine and non-routine tasks involving hazards chemicals

Recordkeeping

Training Records

Maintain records of general and unit-specific training for each employee for the duration of employment, especially noting the date of training.

SDS

The supervisor or designee will determine the method for organizing and storing the SDS. Online search databases are an acceptable resource for SDS as long as all employees have easy access to the database.

Chemical Inventory

The supervisor or designee will keep a current and accurate list of hazardous materials in work areas. Review and revise the chemical inventory annually, at a minimum.