

<b>UT Health Science Center: HM5100 - Hazard Communication Program</b>	
<b>Version 2</b>	<b>Publication Date: 12/19/2023</b>

## Objective

To ensure that the hazards of chemicals used in the workplace are evaluated, and hazards are communicated to both employers and employees. In addition, to minimize hazardous exposure to chemicals in the workplace and to provide information to emergency personnel, as required by TOSHA's Hazard Communication Right-to-Know Standard and the Occupational Exposure to Hazardous Chemicals in the Laboratory Standard.

## Scope

This procedure applies to all chemicals known to be present in the workplace such that employees can be exposed under normal conditions of use or in a foreseeable emergency.

This shall apply to all places of employment on the UTHSC campus where students, staff and faculty are exposed or potentially exposed to a chemical hazard(s). Where chemicals are used in a manner that meets the definition of "laboratory use" (see definition below), the Chemical Hygiene Plan program will be used (see [UTHSC Chemical Hygiene Plan](#)). Where chemicals are used in a laboratory but do not meet the definition of "laboratory use", the UTHSC Hazard Communication Program shall apply.

## Background

The OSHA Hazard Communication standard is often called the "Right-to-Know" law that governs the evaluation and communication of hazards associated with chemicals in the workplace. Under this standard, employees have the right to know what chemicals they are exposed to, the hazards of working with the chemicals, and steps to take in order to protect themselves and others while working with the chemicals.

## Roles

### Chemical Users (employees) shall:

- 1) Be trained before they work with, use, or handle hazardous chemicals upon employment and when new hazardous chemicals are introduced. Refresher training shall be conducted annually and documented appropriately for all employees by The Office of Research Safety Affairs.
- 2) Stay informed about the hazards of any chemicals in the workplace, and work with those chemicals in a safe manner.
- 3) Ensure all containers are properly labeled.
- 4) Notify their supervisor as soon as possible after exposure to a hazardous chemical in the workplace.

### Chemical Users in Laboratories shall:

- 1) Follow the plans and procedures outlined in the Chemical Hygiene Plan Program.

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- 2) Laboratory workers are expected to receive basic training and information on this program via their general lab safety training.

**Responsible units (e.g. Departments; Department Heads, Directors) whose employees use hazardous chemicals under their control shall:**

- 1) Ensure their non-laboratory employees are trained on the Hazardous Right-to-Know Standard, and the UTHSC Hazard Communication procedure and that they post adequate notification informing the employees of their rights under the TOSHA Hazardous Right-to-Know Law.
- 2) Ensure their laboratory employees are trained on the Occupational Exposure to Hazardous Chemicals in the laboratory standard and the UTHSC Hazard Communication program.
- 3) Determine the required personal protective equipment needed in their work area and ensure their employees are properly trained in the use of that equipment.
- 4) Ensure that the proper PPE is made available to their employees.
- 5) Assure that all hazardous chemicals that enter or leave the workplace are properly labeled, tagged, or marked in a manner which complies with the Hazardous Right-to-Know Law, and does not conflict with any other regulation pertaining to hazardous materials.
- 6) Develop safe procedures for work in their areas, as well as written procedures for emergencies.
- 7) Ensure that a procedure exists to review and update label information.
- 8) Ensure that a current chemical listing (inventory) is maintained according to the requirements expressed in this procedure.
- 9) Ensure all employees have access to Safety Data Sheets (SDS) and are informed of any hazards related to chemicals they will use in their workspace. This can be done by either hard copies or via an electronic format,
- 10) Ensure that any students, contractors, sub-contractors, vendors, salesperson(s), or visitors are informed of any hazardous chemicals used in the areas being visited, or where a person will be working. These people will be provided, or required to provide personal protective equipment for their safety.
- 11) Ensure that Campus Safety is receiving hard copies of SDS for any new chemicals ordered in their work area.
- 12) Make sure that specific training is provided for non-routine tasks.
- 13) Handle employee exposure to hazards immediately and take steps as necessary to provide medical evaluation, monitoring, or treatment.

**Campus Safety shall:**

- 1) Serve as a technical resource for questions and comments regarding the Hazard Communication standard.
- 2) Coordinate, audit, and determine compliance of UTHSC's Hazard Communication Program.
- 3) Maintain a backup source of Safety Data Sheets and provide ready access to SDS during an emergency (accidental release).

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- 4) Submit necessary reports to regulatory agencies.
- 5) Provide Hazard Communication training opportunities to campus.
- 6) Revise the UTHSC campus written hazard communication program as necessary.
- 7) Manage the campus chemical inventory.

**Visitors shall:**

- 1) Be provided or be required to provide for themselves safety and personal protective equipment for their use.
- 2) Notify UTHSC of the hazards of any chemicals they are delivering or using while on campus.
- 3) Disclose health hazards and fire protection information for any trade secrets, which will be protected.
- 4) Comply with OSHA's Hazard Communication Standard and with UTHSC's Hazard Communication Program.

## Definitions

**Hazard Communication:** The means through which employers inform their employees about hazards in the workplace (i.e. training, labeling, safety data sheets, etc.), which are regulated by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

Hazard Communication does not apply to:

- Cosmetics
- Tobacco Products
- Wood or wood products
- Food or alcoholic beverages
- Drugs
- Biological hazards
- Radiation hazards
- Pesticides
- Articles, as defined in 29 CFR 1910.1200(c)  
*Articles are essentially finished products. While the materials used to manufacture a plastic bottle may have hazards, once it becomes a bottle, it is an "article".*

**Hazardous substance:** Any substance that is capable of causing an acute or chronic health condition in humans or adversely impacting the environment. Substances that are considered physical hazards (flammable substances, explosives, shock sensitive, etc.) are included in the definition of a hazardous substance. The OSHA Hazard Communication Standard, 29 CFR 1910.1200 and the OSHA Chemical Hygiene Plan 29 CFR 1910.1450 are the two main standards that define a hazardous substance.

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**Employee:** A worker who may be exposed to hazardous chemicals under normal operating conditions, or in foreseeable emergencies.

**Employer:** A person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

**Global Harmonization System:** developed by the United Nations as an international standardized approach to hazard communications. This ensures that chemical hazard communication is consistent on a global scale. It is commonly referred to as GHS.

**Laboratory Use:** “Laboratory use of hazardous chemicals” means handling or use of such chemicals in which all of the following conditions are met:

- Chemical manipulations are carried out on a “laboratory scale” (i.e., work with substances in which the containers used for reactions, transfers, and other handling of substances is designed to be easily handled by one person);
- Multiple chemical procedures or chemicals are used;
- The procedures involved are not part of a production process, nor do they in any way simulate a production process; and
- “Protective laboratory practices and equipment” are available and in common use to minimize the potential for worker exposure to hazardous chemicals.

**Safety Data Sheet (SDS):** *Formally known as Material Safety Data Sheets (MSDS):* Detailed information bulletin prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first aid procedures, and control measures.

## Procedure

The UTHSC Hazard Communication Program consists of five elements: a written program, chemical inventory, labels, safety data sheets (SDS) and training. The means of accomplishing each of these elements is detailed below.

### Written Program

UTHC’s written Hazard Communication program details how the Hazard Communication program will be implemented at UTHSC. This program assures that all aspects of Hazard Communication have been addressed. The UTHSC written Hazard Communications plan can be found on the Office of Research Safety web-site at:

<https://www.uthsc.edu/research/safety/index.php>, through the UTHSC [Policy Manager application](#) or by contacting Campus Safety at 8-6114.

All responsible units, where laboratory chemical use occurs, are required to maintain comply with the UTHSC Chemical Hygiene Plan, which includes a comprehensive set of basic rules and

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procedures for the safe use of hazardous chemicals. See the [UTHSC Chemical Hygiene Plan](#) for more information.

### Chemical Inventory

An electronic or hard copy of a chemical inventory stored in the workplace must be compiled and maintained. The inventory for each department or work area should be uploaded to the [EHS Assistant web-based application](#). The inventory must be updated to accurately reflect materials in the department's inventory and reviewed at least annually for accuracy. Employees who are using or exposed to any hazardous chemicals on the inventory must have access to the inventory.

### Labels

OSHA's HazCom standard requires that hazard warning labels be placed on every container of hazardous chemicals in the workplace. Labels must be legible in English and displayed. All containers of hazardous materials must be properly labeled or marked with the following required information:

#### *Manufacturer Labels*

**Product Identifier:** name used on the label and the SDS. It can be a chemical name, a product name, or some other identifier that helps locate the SDS quickly.

**Hazards:** used to alert the user to a potential hazard and is determined by the hazard class and category of the chemical. Hazards must be labeled on the container.

**Hazard Statements:** standardized phrases assigned to a specific hazard class and category. They are used to describe the nature and the degree of hazard. Examples include: "causes serious eye damage" and "fatal if swallowed".

**Precautionary Statements:** standardized phrases assigned to a specific hazard class and category. There are four types of precautionary statements, covering prevention, response in case of accidental spills and exposure, storage and disposal. Examples include: "wear protective gloves/protective clothing" and "store locked up".

**Supplier Information:** refers to the name, address and telephone number of the chemical manufacturer, importer, or other responsible party.

**Pictograms:** a symbol on a white background with a red border that conveys specific information about the hazards of a chemical.

### Safety Data Sheet (SDS)

The SDS must be readily available at all times to all personnel using hazardous chemicals. UTHSC provides employees with access to SDS via MSDSOnline. Once obtained through MSDSOnline a local copy must be printed or saved in the work area. If there is difficulty in obtaining an SDS, the requestor must contact the supplier and/or manufacturer for the SDS. The Supervisor, Principle Investigator or lab manager must request the SDS in writing from the manufacturer or distributor within (5) business days. If the SDS is not made available, the employee has a right to refuse to work with that hazardous chemical without retaliation. A person in the work area should be designated as the responsible person to ensure there are copies of SDS for every chemical used and stored in the workspace.

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Each work unit at UTHSC is required to maintain a file of Safety Data Sheets (SDSs) that corresponds to the inventory of hazardous chemicals in that respective work area. SDSs may be maintained in a notebook, or electronically as long as the method is reliable, readily accessible, and workers are properly trained in the use of those systems, and there is an adequate backup system.

A master file of all safety data sheets will be maintained by Campus Safety. This master file of SDSs will be made available upon request during normal working hours, 8:00am to 5:00pm, M-F, by calling 8-6114. During an emergency situation and at times other than normal working hours, individuals can contact the UTHSC Police Department at 8-4444 who will have available a current listing of organizations capable of providing emergency management assistance and information.

SDS are designed to provide information concerning the physical and health hazards of chemicals found in the workplace. OSHA now requires that all SDSs must follow a specified 16-section format. An SDS is composed of the following sections, which should be covered in employee training:

- 1) Identification
- 2) Hazard(s) identification
- 3) Composition/information on ingredients
- 4) First-aid measures
- 5) Fire-fighting measures
- 6) Accidental release measures
- 7) Handling and Storage
- 8) Exposure controls/personal protection
- 9) Physical and chemical properties
- 10) Stability and reactivity
- 11) Toxicological information
- 12) Ecological information
- 13) Disposal considerations
- 14) Transport information
- 15) Regulatory information
- 16) Other information

### **Training and Information**

Each person who handles or uses hazardous chemicals shall be trained before they work with, use, or handle hazardous chemicals. This training will occur:

- Upon initial assignment and
- When new hazardous chemicals are introduced

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Refresher training shall be conducted when an employee demonstrate a lack of hazard awareness or familiarity with the proper procedure for handling hazardous materials. All training must be documented by the supervisor.

Explanation of the existence of the written plan and how each employee has a right to review the document

### *Chemical Inventory*

Explanation of the requirement for conducting periodic chemical inventories.

### *Chemical Container Labeling*

**Primary Container** requirements (Manufacturer/Importer label o Product Identifier,

- Pictograms
- Signal Words
- Hazard Statements
- Precautionary Statements
- Manufacturer Contact information

**Secondary Container** requirements (those containers in which a worker may use or dispense chemicals)

- Product identity
- Some indication of the hazards

### *Safety Data Sheets (SDS)*

Explanation of the requirement that a Safety Data Sheet (SDS) be procured for each hazardous chemical. Advising where the sheets are kept in the unit and exactly how an employee can arrange to review the sheets. An orientation relative to the information available from the SDS.

### **Required training topics (for Laboratory Workers)**

The Hazard Communication Standard does not directly apply to the laboratory-use of chemicals. The method for training workers in the laboratory-use of hazardous chemicals is via general lab safety training and procedure-specific training provided by their Principal Investigator or senior laboratory personnel. These training requirements are detailed in the UTHSC Chemical Hygiene Plan. Laboratory safety training includes a review of the requirements pertaining to the following:

- Written program
- Chemical inventory
- Labeling and GHS Pictograms
- Safety Data Sheets

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- Training

#### Recordkeeping

Documentation of hazard communication plan elements is maintained by Campus Safety.

Required training topics (for non-laboratory workers)

#### *Hazard Communication Standard*

Defining the hazard communication standard, the reasons why the standard was written, and the employees' rights under the standard.

#### Responsible Official & Additional Contacts

Subject Matter	Office Name	Telephone Number (xxx) xxx-xxxx	Email/Web Address
Policy Clarification and Interpretation	Campus Safety and Emergency Management	901-448-6114	labsafety@uthsc.edu
Policy Training	Campus Safety and Emergency Management	901-448-6114	labsafety@uthsc.edu
Hazard Communication			

#### Related Policies/Guidance Documents

##### References

- 1) OSHA: 29 CFR 1910.1200, 29 CFR 1926.59, 29 CFR 1910.1450 (Lab Standard), and TDL Rule 0800-1-9
- 2) NFPA: 45, 306, 654, 49
- 3) TOSHA: Act of 1972 50-3-101: 50-3-919

##### Related Policies

- 1) SA0100 Safety and Health Program



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- 2) SA0150 Environmental Health and Safety Records
- 3) SA0400 Hazardous Material Safety
- 4) RS001 Chemical Hygiene Plan