



ENVIRONMENTAL HEALTH & SAFETY

The University of Alabama at Birmingham

Hazard Communication Plan

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Introduction

Employers that have hazardous materials at their workplaces are required by OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200 (<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>),

to implement a Hazard Communication Program. Each employer must develop, implement, and maintain at the workplace a written Hazard Communication Plan that includes provisions for container labeling, collection and availability of safety data sheets, exposure control strategies and an employee-training program. It also must contain how the workplace maintains an inventory program of hazardous chemicals and the means by which the employer informs the employees of the hazards. The employer shall make the written hazard communication program available, upon request, to employees/ their designated representatives. Shall include the methods the employer will use to provide the other employer(s) on-site access (contractors and their employees) to safety data sheets and hazard information while working during the workplace's normal operating conditions and in foreseeable emergencies.

Scope

The Hazard Communication Program covers all UAB employees (including faculty, staff and other employees) on campus, except those working in the laboratories, which are covered by the Chemical Hygiene Plan. This applies to all hazardous materials and any health or physical hazards posed by those materials in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency. This Standard is also applicable to employees involved in work operations where employees only handle chemicals in sealed containers, which are not opened under normal conditions.

Purpose

The purpose of a Hazard Communication Program is to inform employees of the hazards associated with chemicals in their workplace and ensure the safe use, handling, and disposal of the chemicals. It also outlines:

- Departmental responsibilities and the necessary administrative oversight for managing the Hazard Communication Program
- The components of the written Hazard Communication Program
- Employee training requirements

Exempted Substances

- Hazardous waste
- Tobacco or tobacco products



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- Wood or wood products, including lumber which will not be processed and the only hazard they pose to employees is the potential for flammability or combustibility
- Food, drugs or cosmetics intended for personal use
- Consumer products used in the workplace when used as a normal consumer would use (i.e. White-Out, spray paint used for short, one-time applications).

Definitions

OSHA definition of the terms used in this plan:

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>

Chemicals: any substance, or mixture of substances

Chemical manufacturer: an employer with a workplace where chemical(s) are produced for use or distribution

Chemical name: the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name that will clearly identify the chemical for the purpose of conducting a hazard classification

Classification: identify the relevant data regarding the hazards of a chemical

Container: any bag, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical

Designated representative: any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section

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

Exposure or exposed: 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: any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace

Hazardous chemical: any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified

Health hazard: a chemical which is classified as posing one of the following hazardous effects: acute toxicity, skin corrosion or irritation, eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity (single or repeated exposure), or aspiration hazard

Immediate use: that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred



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Label: an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging

Laboratory: a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis

Physical hazard: a chemical that is classified as posing one of the following hazardous effects: explosive, flammable, oxidizer, self-reactive, pyrophoric, organic peroxide, corrosive to metal, gas under pressure

Responsible Party/Chemical hygiene Officer: an employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Plan and additional information on the hazardous chemical and appropriate emergency procedures, if necessary

Safety data Sheet (SDS): written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph OSHA Hazcom paragraph(g)

Use: to package, handle, react, emit, extract, generate as a byproduct, or transfer

Work: a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present

Workplace: an establishment, job site, or project, at one geographical location containing one or more work areas

Responsibilities

UAB Environmental Health and Safety (EH&S)

EH&S has the responsibility for administering and overseeing institutional implementation of the Hazard Communication Program. EH&S will provide assistance in the development of training programs and in providing technical information to queries from the affected Departments.

Chemical Hygiene Officer

Chemical Hygiene Officer (CHO)/Responsible Party is a member of EH&S and, with support from other EH&S personnel has the primary responsibility for ensuring the implementation of the program. CHO is responsible for:

- Developing and implementing the Hazard Communication Program and evaluating annually to ensure compliance
- Ensuring that the affected employees are receiving required training related to hazard communication program
- Implementing an SDS program and ensuring affected employees have access
- Implementing a hazardous material labeling system and chemical inventory program
- Establishing emergency response plan to handle hazardous material releases and exposures
- Implementing appropriate personal protective equipment (PPE) program



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- Periodically review work areas to ensure compliance with this policy and procedure.
- Investigating chemical related incidents and exposures

Departments/Supervisors

- Identifying and notifying the employees who may fall under the scope of this program and purpose and intent
- Ensuring that affected employees are trained
- Developing and providing department/procedure specific training related to specific hazards not covered under EH&S offered Hazcom training (online and in-person)
- Developing SOPs and training employees on SOPs
- Providing hazard/job/procedure specific PPE to all affected employees
- Making SDS and chemical inventory accessible to all employees
- Ensure that containers are labeled appropriately and have an updated list of the chemicals in their work areas.

Employees

- Complying with the Hazard Communication Program
- Taking the University's general Hazard Communication training and attending department/job specific Hazcom training sessions
- Learning how to read and understand chemical labels/SDSs
- Learn and follow necessary precautionary steps while handling hazardous materials
- Using appropriate PPE while working with hazardous materials

Contractors

- Provide Safety Data Sheets (SDS) for hazardous chemicals brought onto the university campus to the contact person/UAB representative upon request.
- Follow this plan and their own hazard communication (HazCom) program

Labeling Requirements for Chemical Containers

Shipping containers come with labels with information regarding product identifier, signal word, pictograms, hazard statements, precautionary statements, and the name, address and phone number of the responsible party. Best way to label the container is to never remove or deface the original label from the supplier. Workplace containers, which can be labeled with alternative labeling methods as, described below.

- All chemical containers, both hazardous and nonhazardous must be prominently and accurately labeled with the chemical name and the appropriate hazard warnings. The label must be in English. Formulas and abbreviations are not acceptable for any containers. The label must be legible, permanently displayed. The hazard warning must provide the health and physical hazards of the chemical.



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This can be done through pictures, symbols, or a combination of both. Chemical container labels can be generated using [ChemWatch](#) .

- Date all chemical containers and especially peroxide formers and other chemicals that may become unstable over time. They should display both the arrival date and date opened.

The HCS pictogram information can be found at [Hazard Communication Standard Pictogram - OSHA](#)

Labeling and Transfer of chemicals

When transferring chemicals from the original container to a secondary (portable) container, those containers must also comply with the labeling requirements listed above. Chemical labels can be generated using [ChemWatch](#) .

[ChemWatch](#) database can be used to print labels for both primary and secondary containers. To learn how to use ChemWatch please refer to the link

[Learn how to search the ChemWatch database](#)

All personnel working with chemicals must be fully trained on how to label chemicals using the system and how to understand the labeling system. Training must occur when a new person begins the work, when new chemicals are introduced, and should occur on a regular basis or annually.

Labeling Pipes

Above ground pipes transporting hazardous substances (gases, vapors, liquids, semi liquids) shall be labeled. ASME's (ANSI) standard A13.1 is the recommended scheme for identification of pipe systems.

Pipe marking labels must effectively communicate the contents of the pipes and give additional detail if special hazards (such as extreme temperatures or pressures) exist.

Employees shall not work on any unlabeled pipes until the contents of the pipe are determined; and appropriate safety precautions have been identified for the work. EH&S is available for assistance in identifying appropriate safety precautions.

Safety Data Sheets

Supervisors must ensure that the SDSs (formerly MSDS, Material Safety Data Sheets) are readily accessible to employees for all hazardous chemicals in their workplace. This may be done in many ways. For example, supervisors may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency.

Safety Data Sheet (SDS) Access

Supervisors shall ensure employees can obtain SDSs from the following sources:



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1. Supervisors can keep hard copies of SDSs in a folder accessible to all employees in the work place
2. Online: UAB has subscribed to the ChemWatch chemical database. It may be accessed from any computer on the UAB campus, within the UAB Medical system, or connected via VPN.
3. How to Search SDS online?
You can learn how to search the ChemWatch database using below link:
http://www.uab.edu/ohs/images/docs/chem/SDS_how_to_use_ChemWatch_2015-03-18.pdf
4. If you can't find the SDS that you are looking for, contact EH&S at 934-2487 to request CHO to contact the manufacturer to obtain one.

SDS provides information on specific hazards, health effects, handling and storage, spill response, disposal and personal protective equipment regarding a particular substance.

The information on SDS is divided into 16 sections:

- | | |
|---|-------------------------------------|
| 1. Identification: | 9. Physical and chemical properties |
| 2. Hazards identification | 10. Stability and reactivity |
| 3. Composition/information on ingredients | 11. Toxicological information |
| 4. First aid measures | 12. Ecological information |
| 5. Firefighting measures | 13. Disposal considerations |
| 6. Accidental release measures | 14. Transport information |
| 7. Handling and storage | 15. Regulatory information |
| 8. Exposure controls/personal protection. | 16. Other information, |

Sections 1 through 8 contain general information about the chemical, identification, hazards, composition, safe handling practices, and emergency control measures (e.g. firefighting). This information should be helpful to those that need to get the information quickly.

Chemical Inventory

University of Alabama at Birmingham uses an online Chemical Inventory Management System to track the storage and use of hazardous chemicals on campus.

Anyone responsible for an area where hazardous materials are stored is required to maintain a complete inventory of all the materials. This includes but not limited to faculty, staff, students, and visiting scholars. UAB's EH&S will perform the initial inventory in each area and after which it becomes the responsibility of the area supervisor to maintain and update whenever a new chemical introduced or completely used up.

All chemicals that are considered hazardous (corrosive, acutely toxic, reproductive toxins, flammable, etc.) and required to have an SDS to be kept on hand according to OSHA (29 CFR 1910) or appear on the Dept. of Homeland Security Chemicals of Interest list (6 CFR 27 Appendix A) must be included in the chemical inventory. Non-hazardous chemicals can be included in the inventory but it is not required.

The following are considered non-hazardous and do not need to be included in the chemical inventory:

- Sugars and non-hazardous buffer salts
- Amino Acids
- Materials of biological origin, except for toxins
- Culture media, agar, and broth
- Latex paint
- Printer inks and toner
- Microorganisms
- Research samples
- Antibodies

For more information regarding the chemical inventory management system visit the link <http://www.uab.edu/ohs/chemical-safety/chemical-inventory-management-system>

It is the responsibility of the supervisor to make the inventory available to all employees under his/her supervision.

Door Signs

Door Signs located outside of each laboratory/room containing hazardous materials, provide location-specific hazard information to emergency response personnel. Hazard labels/pictograms on the door represent the different types of hazards that may be present within the lab. Door Signs also include emergency contact information for that particular location. Emergency Door Signs and pictograms are reviewed in detail in EH&S offered online Hazcom training. Emergency Notification Door signs can be printed from [Emergency Notification Sign](#)

Monitoring

EH&S has exposure monitoring plans for most of the hazardous chemicals commonly found in workplaces including waste anesthetic gases, xylene, formaldehyde, solvents, dust, silica, lead, hydrogen sulfide, nitrogen dioxide etc. Assessment of exposure to other chemicals as well as physical agents such as noise and non-ionizing electromagnetic radiation can be requested through EH&S. Anybody is concerned with over-exposure to a chemical agent, or regularly work with significant amounts of a hazardous chemicals, can contact EH&S at 205-934-2487 to determine the need for monitoring. EH&S Occupational Medicine Program (<https://www.uab.edu/ehs/occupational-medicine>) provides medical surveillance that involves the evaluation of health risks associated with an employee's exposure to animals and hazardous agents. It is a free service for all eligible employees.

Training

It is a requirement of Hazcom Standard to provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area.

How UAB provides training?

Online Hazcom Training:

Hazard Communication advanced training is available online and required for employees working with hazardous chemicals. Employees can register for this course at <https://www.uab.edu/humanresources/home/learndev/online-learning>. New employees joining the Facilities Department requiring to work with chemicals will be assigned this course and required to complete it before starting the work.

The training will cover:

- The hazard communication standard and its requirements.
- The components of the hazard communication program at UAB
- Operations in work areas where hazardous chemicals are present.
- Measures employees can take to protect themselves from the hazards.
- Specific procedures put into place at UAB to provide protection such as engineering controls, work practices, and the use of personal protective equipment (PPE).
- The location of the written hazard communication program, lists of hazardous chemicals, and the required SDSs
- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.)

Hazard communication awareness training (link) is for employees involved in work operations where employees only handle chemicals in sealed containers, which are not opened under normal conditions. This training is available at

<https://www.uab.edu/humanresources/home/learndev/online-learning>.

New employees are assigned this course during the initial orientation.

In-person Hazcom Training

- EH&S provides annual in-person Hazcom refresher training to all Facilities employees and UAB Police.

Job-specific Hazcom Training

- The supervisor provides this training and records are maintained by each department/supervisor. EH&S will perform a risk assessment and work with the supervisor to develop appropriate training.

Non-routine Tasks Training

- Periodically, employees may be required to perform non-routine tasks that involve the use of hazardous chemicals. Any employee engaging in such a task shall be provided training by their supervisor in consultation with EH&S. The training must cover the following:
 - The specific hazards associated with the performance of the task.
 - Control measures needed to safely perform the task (engineering, administrative and PPE)
 - Specific emergency procedures to be used in the event of an accident or injury

Frequency of Training

Employees shall be trained on hazardous substances in their work area:

1. Upon initial assignment
2. Whenever a new hazard is introduced into the work area.

Contractors and Contract Workers

This section applies to non-university personnel working on UAB campus (i.e., contactors, vendors, consultants and visitors). The primary UAB contacts (i.e., supervisors/individual responsible for contractors) required providing the contractors, vendors and visitors of the hazard information relevant to hazardous materials present in the work area. This includes providing the contractor/vendor/visitor:

- Information on the University's chemical labeling system and piping systems for hazardous material
- Information on the potential hazards in the area or workplace
- Access to safety data sheets (SDSs) for chemicals that may be encountered

Contractors shall provide the UAB point of contact with the following information:

- A list of hazardous materials they will bring on site
- How the containers will be labeled, used, stored, transported and quantities involved
- Safety data sheet for chemicals if the chemical(s) present any hazards that could potentially result in significant risk

The UAB point of contact shall review the information and inform and train employees/students as needed.

Recordkeeping

Transcripts of Hazard Communication online trainings are kept in UAB Campus Learning System. Records of in-person training provided by EH&S will be collected using One Tap and are kept in Learning Management System.

Supervisors are responsible for documenting job specific Hazcom training offered by them.

Review of the Program

Although the HCS does not require evaluating hazard communication program, it must remain current and relevant. The best way to achieve that is to review the program periodically to make sure that it is still working and meeting its objectives and to revise it as appropriate to address changed conditions in the workplace (e.g., new chemicals, new hazards, etc.).

References

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>