

Title: Hazard Communication Program

Applies to:

Indiana University

Date Issued: Date Revised:

9/30/99

12/6/02

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12/6/07

Purpose

**Purpose of
This Program**

The IU Hazard Communication Program (HCP) was developed to:

- Inform IU employees of the hazards associated with chemicals in the workplace.
 - Ensure safe use, handling and disposal of hazardous chemicals in the workplace.
 - Comply with the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and Indiana University health and safety policy.
 - A successful Hazard Communication Program will reduce potential incidents of chemical source illnesses and injuries.
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Regulatory Reference

29CFR1910.1200, OSHA's Hazard Communication Standard

Definitions

Definitions

Chemical means any element, chemical compound or mixture of elements and or/ compounds.

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

Chemical name means 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 nomenclature, or a

**Definitions
(continued)**

name, which clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid means any liquid having a flashpoint at or above 100 degree F, but below 200 degree F, except any mixture having components with flashpoints of 200 degree F, or higher, the total volume of which make up 99% or more of the total volume of the mixture.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

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

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies.

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

Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

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 exposure.

Flammable means a chemical that falls into one of the following categories:

- "Aerosol, flammable" means an aerosol that, when tested by the method described in 16 CFR 1500.45 yields a flame projection exceeding 18 inches at full valve opening, or a flashback at any degree of valve opening
- "Flammable Gas" means a gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen percent by volume or less; or a gas that at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve percent by volume, regardless of the lower limit
- "Flammable Liquid" means any liquid having a flashpoint below 100 degree F, except any mixture having components with flashpoints of 100 degree F or higher, the total of which make up 99% or more of the total volume of the mixture
- "Flammable Solid" means a solid, other than a blasting agent or explosive as defined in CFR 1971.109, that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard

**Definitions
(continued)**

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Foreseeable emergency means 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 means any chemical, which is a physical hazard or a health hazard.

Hazard warning means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard including target organ effects, of the chemicals in the containers.

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with the established scientific principles that acute or chronic health effects may occur in exposed employees.

Identity means any chemical or common name, which is indicated on the material safety data sheet (MSDS) for the chemical.

Immediate use means 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 it is transferred.

Label means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals

Material Safety Data Sheets (MSDS) means written or printed material concerning a hazardous chemical.

Mixture means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Oxidizer means a chemical other than a blasting agent or explosive as defined in CFR 1910.109(a), that initiates or promotes combustion on other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard means a chemical for which there is scientifically valid evidence that it is combustible liquid, compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable or water-reactive.

Produce means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

**Definitions
(continued)**

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Unstable (reactive) means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure, or temperature.

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

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

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

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

Scope of the Hazard Communication Program

This program applies to:

- All departments at IU which use or store chemicals and
- All chemicals used by IU employees under normal conditions of work or in foreseeable emergencies.

EXCEPTION: This program does not apply to research laboratories. These facilities are subject to Chemical Hygiene Plan requirements under the OSHA Laboratory Standard, 29 CFR 1910.1450. For more information, contact the UOEHS Laboratory Safety Office at 855-6311 or 855-5454.

Program Administration and Responsibilities

University Office of Environmental Health and Safety Management (UOEHSM) will administer this program for the University. These are UOEHSM responsibilities:

- Develop and implement this Program.
- Develop and deliver or arrange training covered in this Program
- Assist IU departments in implementing and complying with this Program and provide additional guidance regarding hazardous materials and safety procedures in the scope of this Program.
- Review and revise this program as needed.
- Audit departments for compliance with this program.

For assistance, contact UOEHSM at 855-6311, 1514 E. 3rd Street, Bloomington, IN, 47405 or <http://www.ehs.indiana.edu>. The UOEHSM HCP Administrator is Ray Ruark, 856-4759 or 855-6311

Individual Departments will designate a departmental HCP administrator to implement this Program.

Hazard Communication Program

Administrator: _____ Phone: _____

The departmental HCP administrator will carry out these responsibilities:

- Inform employees of the location of a copy of this program, MSDS's, and the chemical inventory list for all hazardous chemicals used in the department. Ensure these documents are always accessible to staff.
- Ensure that there is an MSDS present for each hazardous chemical in the department chemical inventory list.
 - Ensure that each container in the department is properly labeled.
 - Conduct or arrange training programs for all affected employees.
 - Maintain records required under this program.
 - Exchange MSDS's and any other required hazard information with affected contractors prior to construction and renovation projects. Ensure contractor compliance during such projects.
 - Keep chemical inventory list current.

Review the written program, MSDS's, inventory list, labels, and training records annually. Make changes according to guidance from UOEHSM or as new information becomes available.

Chemical Inventory List

Chemical Inventory List

In Appendix A of this program is a blank Chemical Inventory List Form. All chemicals being used in this department and for which there is an MSDS in the binder are to be listed on this Inventory form. The completed, current Inventory is to reside in the MSDS binder kept in this department.

Procedure for maintaining the inventory list

1. When a chemical product is received at this department, retrieve the Program binder.
2. Check the Inventory List for the name of the chemical product as it appears on the MSDS accompanying the shipment.
3. If the product is not listed, add it to the list.

Material Safety Data Sheets (MSDS)

MSDS Contents

An MSDS must be kept on file for all chemicals on the Inventory list. MSDS's are designed to provide the information needed to handle chemicals safely. MSDS's may differ somewhat in format and content, however all should contain the following:

1. Substance identification – names, synonyms, manufacturer contact information, and index numbers.
2. List of active and inert ingredients – components and contaminants.
3. Exposure limits – ACGIH, TLV, OSHA PEL, etc.
4. Physical data – boiling, melting points, vapor pressure, evaporation rate, specific gravity or density, water solubility, physical description.
5. Fire and explosion data – LEL, flashpoint, flammability, class of hazardous atmosphere, firefighting media and methods, including fire extinguishers, etc.
6. Transportation requirements, if any
7. Toxicity and health hazard data – including target organ, specific acute and chronic health effects, potential cancer risk, first aid and emergency medicine.
8. Storage and disposal – including reporting requirements
9. Spill and emergency response procedures.
10. Measures to protect employees including personal protective equipment, safety shower and eyewash, etc.

Please contact UOEHSM if an MSDS appears to be inadequate, illegible, out-of-date or incomplete.

Procedures

1. Obtain and label one or more three ring binders and label "MSDS's". Place all old and new MSDS's in the binder(s). File MSDS's alphabetically and by use, location or other suitable category (this may already have been done in many departments).
2. Check all deliveries of chemicals for the MSDS(s). An MSDS should accompany the first shipment of all new or re-formulated chemicals.
3. When a chemical is received with an MSDS, place it in the binder and add the product name to the Chemical Inventory List. Discard any old or out-of-date MSDS for the same or similar product that is no longer in stock.
4. If a chemical is received without an MSDS, check the MSDS binder to determine if it already contains the MSDS. If not, immediately request one from the supplier. Store the chemical separately, label "DO NOT USE" and do not use until the MSDS is received.
5. MSDSs can also be obtained from the UOEHSM web site. Go to www.ehs.indiana.edu. From the home page, select "CCOH Health and Safety Database"
6. Inform all employees of the location of the MSDS binder.

MSDS Location

Exposure Incidents

If an employee is exposed to a chemical and the exposure results in an illness or injury that requires treatment by medical personnel:

1. Ensure that medical personnel see the individual immediately.
2. Provide a copy of the MSDS to the medical personnel involved. Along with the MSDS provide any additional information you have on the chemical and when, where and how it was used.

Labeling

Primary container label contents – Labels on all primary containers must include:

1. The identity of the chemical – common name &/or chemical name.
2. A hazard warning – such as "Caution, Warning, Flammable, Toxic", etc.
3. The name and address of the manufacturer.
4. Chemical hazard ratings for health, fire reactivity (HMIS)
5. Target organs that may be affected by chronic health hazards

**Labeling
(continued)**

Anytime a container contains the information listed in Section 4-1,2,3,4,5 above an additional HMIS label will not be required. We will accept the manufactures original label if it meets this criteria.

Primary container label procedure

1. When chemicals are received, check all containers to ensure that the product label meets the requirements outlined above.
2. With each chemical shipment the purchasing agent or his/her designee will check all containers to ensure that the condition is safe and that all labels meet the requirements outlined in this program. Indiana University will not accept unsafe containers or improperly labeled containers.

A secondary container is any container other than the one in which the chemical was received from the supplier. Secondary container labels will contain the same information as labels for primary containers. All labeling information can be obtained from the original container, or the MSDS for the product. Label secondary containers if:

- More than one employee uses the container.
- The container is used longer than one shift or left unattended in the work area.
- Labels on containers not containing original product will be removed and re-labeled
- Any portable containers used to store, transport or transfer chemicals which hold a sufficient amount to present a physical or health hazard must be labeled

It is not necessary to label the secondary container if:

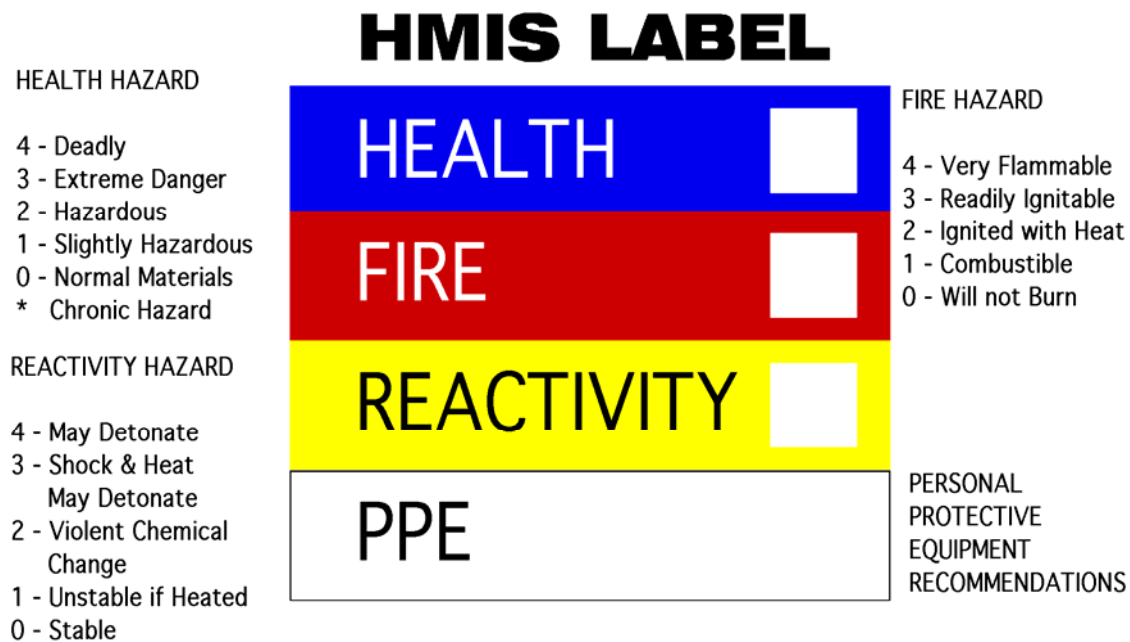
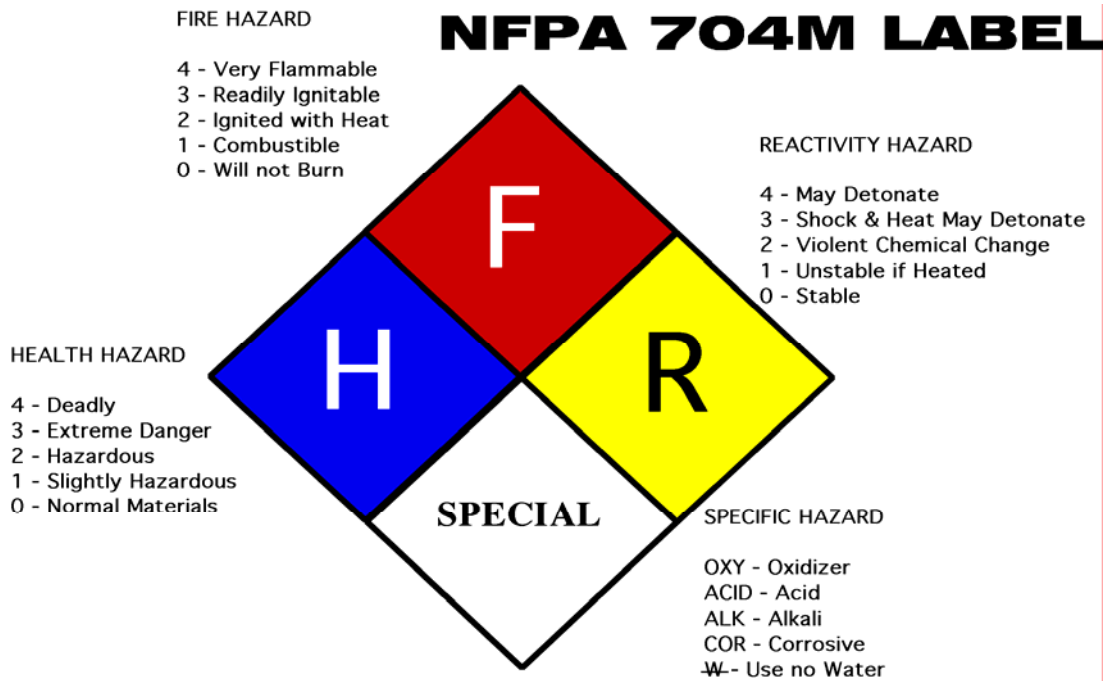
- one employee uses the chemical without exposing others, and
- returns the contents to the original container or disposes of the rest of it.

We will be using the National Fire Protection Association (NFPA) or Hazardous Material Information System (HMIS) to label items that are not correctly labeled or items that do not have labels

This includes numerical ratings for the acute health, flammability and reactivity hazard, the assignments of a personal protective equipment index and the designation of chronic health hazards

The hazard communication portion of the NFPA communicate information on:

1. Chemical identify – common names and code numbers
2. Degree of Acute Health, Flammability and Reactivity hazards – numerical rating
3. Proper Personal Protective Equipment – pictograms
4. Chronic Health Hazards



Note If you have unlabeled or unidentified containers with chemicals please contact UOEHSM for assistance. DO NOT bring chemicals onto IU property from outside sources for personal use.

Training

Training Matrix - Use this table to determine training requirements. These requirements apply to all employees who will use hazardous chemicals in the course of their job duties. Please contact UOEHSM for assistance with your training needs.

When	Content	Training methods
Initially, prior to assignment to work	<ul style="list-style-type: none"> • Details of this program • OSHA requirements • Physical, health hazards of exposure to hazardous chemicals • How to use MSDS's, labels (and other warnings if any) • Location of MSDS's, inventory list and copies of this program. • How to detect presence or release of hazardous chemicals. • Measures to protect employees including safe work practices, PPE, and emergency procedures 	Classroom type training. Video, other AV and interactive media are useful for this application
Upon introduction of new hazards, (new chemicals, new tasks, etc.)	<ul style="list-style-type: none"> • Physical, health hazards of exposure to hazardous chemicals • Measures to protect employees including safe work practices, PPE, and emergency procedures 	Safety meeting, job, facility or task orientation
Upon assignment to non-routine tasks	<ul style="list-style-type: none"> • Physical, health hazards of exposure to hazardous chemicals • Measures to protect employees including safe work practices, PPE, and emergency procedures 	Safety meeting should include walkthrough and task orientation.

Keep these training records:

- Date of training.
- Name and job title of trainer.
- Names of the trainees.
- Training topics.
- Other pertinent information to substantiate the training

Note: Please see Training Record Form, Appendix B.

Non-Routine Tasks and Spill Response

Non-Routine tasks do not occur on a frequent basis or as a normal part of employee's work. Before starting non-routine tasks, the department program administrator and/or foreman or work group manager will discuss with department personnel potential hazards they may encounter and safe work practices that should be used. Contact UOEHSM for assistance with the evaluation of the hazards of non-routine work.

Spill Response: Refer to the UOEHSM Chemical Spill Response Guide for assistance. If there is a major spill:

1. Evacuate the building.
 2. Call 911 and give details of the incident including, location, type of hazardous material, and any injuries.
 3. Contact UOEHSM at 855-6311 immediately after calling 911.
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Asbestos

Asbestos Awareness

1. Many IU buildings contain asbestos materials which might include pipe and tank insulation, fireproofing, decorative or acoustical plaster, duct insulation, furnace insulation, transite, siding, roofing and flooring.
2. A notice must be posted in a common area of each building which notes what asbestos materials are located in the building. Notices must also be posted in all mechanical rooms.
3. The Hall Kimbrell Report is a 1987 listing of asbestos materials in IU buildings. Employees should have access to this information through their supervisors. Updated information is available for some buildings from the University Office of Environmental, Health, and Safety Management (UOEHSM).
4. Physical Plant Abatement and the Physical Plant Carpenter Shop have accredited asbestos abatement personnel. No other employees should be removing or otherwise disturbing asbestos materials. This includes floor tile removal. OSHA covers the maintenance of asbestos floor tile. There are a few simple requirements, which can be covered by the supervisor during initial instruction in the use of floor machines.

**Asbestos
Awareness
(continued)**

5. It is important that employees know where asbestos materials are within their work area and that they report any damaged areas immediately to their supervisor. Damaged materials must be repaired or removed promptly.
 6. The University Office of Environmental, Health, and Safety Management will provide one hour asbestos awareness training to any organization upon request. Most employees would not be required to have this training. Some OSHA awareness training will be provided during hazard communication training.
 7. UOEHSM operates an asbestos museum with a large variety of common asbestos materials on display. Any employee is invited to visit this facility to see what these common building materials look like.
 3. Contact Richard Breeden, 855-6313, with asbestos questions or to request inspections.
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Working with Contractors

1. During a pre-job walkthrough or meeting:
 - Inform contractors of any hazards in the work area that their employees may encounter during the term of the contract.
 - Provide copies of the MSDS's and the HCP to the contractor upon request or inform the contractor their location.
4. During the term of the contract, observe work practices to ensure that contractors are complying with OSHA requirements and IU policy. Contractors hired by Indiana University are required to observe the following guidelines (these guidelines apply to all sub-contractors also):
 - Establish and enforce safe work practices.
 - Comply with all applicable OSHA requirements and IU safety and health policies
 - Inform IU Construction Management department in advance of all hazardous materials to be used during a project. Inform building occupants upon request by occupants or any employee of IU.
 - Supply a copy of all MSDS's for those materials to Construction Management and UOEHSM upon request.
 - Verify that each container used is labeled in accordance with this HCP.
 - A copy of the Indiana University Hazard Communication Program will be available in the UOEHSM office

Recordkeeping

Keep all records in the scope in your departmental files. Follow these guidelines:

Type Record	Kept for
MSDS	As long as product is used in dept.
MSDS for employee exposure incident	Indefinitely
Chemical Inventory List	As long as is current
Training	Indefinitely
Other	

Program Review

Review all elements of this program annually by July 1, to ensure that it is current, accurate and complete. Contact UOEHSM immediately if:

- New chemicals are introduced into the workplace.
- New tasks or processes involving chemicals are introduced.
- Job duties are changed to involve the use of new chemicals.
- There is a change in location(s) where chemicals are stored or used.
- There are changes in any other elements of work affected by this program

**Appendix A:
Chemical Inventory List**

**Appendix B:
Training Record Form**

Training Record Form

1. Course Title: _____
2. Trainer(s)/Title: _____
3. Sponsoring Organization: _____
Contact Person: _____ Phone: () _____
4. Department/Group/Employees Being Trained: _____
Contact Person: _____ Phone: () _____
5. Date and Times: _____
6. Location of Training: _____
7. Type of Training:
First Time: _____ Refresher: _____ New Employee: _____
8. Required for New Employees: Yes _____ No _____
9. Refresher Training Required: Yes _____ No _____ Frequency _____
10. Number of People Trained on this Subject: _____
11. Training Materials Used: _____
(Please attach a copy of sign-in sheets, handouts, outlines, overheads, and evaluation procedures used.)
12. Evaluation Procedures: Quiz: _____ Demonstration: _____ Other: _____
13. Instructor Qualifications: _____
14. Additional Information: _____

Please forward this form and attachments to:
Training Coordinator – UOEHSM, Indiana University – Bloomington
1514 E. 3rd St., Bloomington, IN 47405