



Indiana University Northwest
Environmental Health & Safety

Title: Hazard Communication Program

Applies to:
Indiana University Northwest

Latest Review/Revision:
March 29, 2005

Purpose

The Indiana University Northwest Hazard Communication Program (HCP) was developed to:

- Inform IUN 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 (29CFR1910.1200) and Indiana University's health and safety policy.

Regulatory Reference

29CFR1910.1200, OSHA's Hazard Communication Standard

Definitions

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

Chemical manufacturer means any 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 name, which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid means any liquid having a flashpoint at or above 100^o F, but below 200^o F, except any mixture having components with flashpoints of 200^o F, or higher, the total volume of which makes 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 sub-contractor.

Explosive means a chemical that causes 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 16CFR1500.45 yields a flame projection exceeding 18 inches at full valve opening, or a flashback at any degree of valve opening;
- “Gas, flammable” 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;
- “Liquid, flammable” means any liquid having a flashpoint below 100⁰ F; or
- “Solid, flammable” means any solid, there than a blasting agent or explosive as defined in CFR1910.109, 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.

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite (when tested by Tagliabue, Pensky-Martens, or Setaflash Closed Test).

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 chemical(s) in the container(s).

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 CFR1910.109(a), that initiates or promotes combustion of 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 (reactive) 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.

Specific chemical identity means the chemical name, Chemical Abstract 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 shock, 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 IUN that use or store chemicals, and
- All chemicals used by IUN employees under normal conditions of work or in foreseeable emergencies.

EXCEPTION: This program does not apply to research laboratories. These facilities are subject to Laboratory Chemical Safety Plan requirements under the OSHA Laboratory Standard, 29CFR1910.1450. For more information, contact the Manager of Environmental Health & Safety at 981-4230 or 980-6501.

Program Administration and Responsibilities

The Department of Environmental Health & Safety (DEHS) will administer this program for Indiana University Northwest. These are DEHS responsibilities:

- Develop and oversee implementation of this Program.
- Develop and deliver or arrange training covered in this Program.
- Assist IUN 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 the DEHS at 981-4230, Tamarack Hall, Room F02, Gary, Indiana 46408 or check out the DEHS website at <http://www.iun.edu/~ehs/>.

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, MSDSs 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 on the department 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 MSDSs 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 (reviewed/revised within last year, at minimum).

- Review the written Program, MSDSs, inventory list, labels, and training records annually. Make changes according to guidance from DEHS or as new information becomes available.

Chemical Inventory List

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

Sample procedure for maintaining the inventory list:

1. When the department receives a chemical product, 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 and insert the MSDS in the binder.

Material Safety Data Sheets (MSDS)

NOTE: IUN will rely on the chemical manufacturers, distributors, and importers from whom it purchases chemical products to evaluate the hazards of the chemicals used in the workplace. The information on the MSDS(s) and label(s) is assumed to be accurate and complete.

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

1. Identity—name, synonyms, common names, ingredients (active and inert), contaminants
2. Physical and chemical characteristics—boiling point, melting point, vapor pressure, evaporation rate, specific gravity or density, water solubility, flashpoint, physical description
3. Physical hazards—potential for fire, explosion, and reactivity data
4. Health hazards—signs and symptoms of exposure, medical conditions which are generally recognized as being aggravated by exposure to the chemical, target organ(s), specific acute and chronic health effects, potential cancer risk (listed by NTP, IARC, or OSHA)
5. Primary route(s) of entry—inhalation, ingestion, absorption, injection
6. Exposure limits—OSHA-PEL, ACGIH-TLV
7. Precautions for safe handling and use—hygiene, clean-up for spills and leaks, storage, disposal, transportation
8. Applicable control measures—engineering controls, work practices, personal protective equipment
9. Emergency and first aid procedures
10. Date of preparation of MSDS or last change to it
11. Name, address, telephone number of chemical manufacturer, importer, employer or other responsible party preparing or distributing the MSDS

Please contact the DEHS if a MSDS appears to be inadequate, illegible, out-of-date or incomplete.

MSDS Maintenance

1. Obtain and label one or more three ring binders and label it “MSDS.” Place all old and new MSDSs in the binder(s). File MSDSs alphabetically, by use, location or any other suitable category (this may already have been done in many departments).
2. Check all deliveries of chemicals for the MSDSs. A MSDS should accompany the first shipment of all new or re-formulated chemicals.
3. When a chemical is received with a MSDS, place the MSDS in the binder and add the product name (if not already on list) to your chemical inventory. Discard any old or out-of-date MSDSs for the same chemical or similar product that is no longer in stock.
4. If a chemical is received without a 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 it “DO NOT USE” and do not use until the MSDS is received.
5. MSDSs can also be obtained from the DEHS website. Go to <http://www.iun.edu/~ehs/materialsafetydatasheets.shtml> and initiate a search.
6. Inform all employees of the location of the MSDS binder(s).

MSDS Binder 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

Labels on all primary containers must include:

1. The identity of the chemical—common name and/or chemical name,
2. A hazard warning—such as caution, warning, flammable, toxic, etc., and
3. The name and address of the manufacturer/distributor.

When chemicals are received, check all containers to ensure that the product is safe and the label meets the requirements outlined above. Indiana University Northwest will not accept unsafe containers or improperly labeled containers. Anytime a container contains the information listed above, an additional HMIS or NFPA label will not be required.

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 (except manufacturer/distributor info). 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 is left unattended in the work area.
- It is used to store, transport or transfer chemicals that can hold a sufficient amount to present a physical or health hazard.

Indiana University recommends the use of the National Fire Protection Association (NFPA) 704M label or the Hazardous Material Information System (HMIS) to label items that are not correctly labeled or items that do not have labels.

Both the NFPA and HMIS include numerical ratings for the acute health, flammability, and reactivity hazards. The HMIS additionally provides information on the assignment of personal protective equipment.

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 DEHS 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 and health hazards relating to exposure to hazardous chemicals • How to use MSDSs, labels, and other warning systems, if any • Location of MSDSs, inventory list and copies of this Program • How to detect the 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 and health hazards relating to 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 and health hazards relating to exposure to hazardous 	Safety meeting (should include walkthrough and task orientation)

	chemicals <ul style="list-style-type: none"> Measures to protect employees, including safe work practices, PPE, and emergency procedures 	
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Keep these training records:

- Date(s) of training,
- Name(s) and job title(s) of trainer(s),
- Names of the trainees,
- Training topics, and
- 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 an employee's work. Before starting non-routine tasks, the department's program administrator and/or supervisor will discuss with department personnel potential hazards they may encounter and safe work practices that should be used. Contact the DEHS for assistance with the evaluation of the hazards of non-routine work.

Spill Response: Refer to the IUN Emergency Procedures Handbook for assistance. If there is a major spill:

1. Evacuate the building.
2. Call 9-911 or 6501 and give details of the incident including location, type of hazardous material, and any injuries.

Working with Contractors

1. During a pre-job walkthrough or meeting:
 - a. Inform contractors of any hazards in the work area that their employees may encounter during the term of the contract.
 - b. Provide copies of the MSDSs and the HCP to the contractor upon request or inform the contractor of their location(s).
2. 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 Northwest are required to observe the following guidelines (these guidelines apply to all sub-contractors also):
 - a. Establish and enforce safe work practices.
 - b. Comply with all applicable OSHA requirements and IU safety and health policies.
 - c. Inform DEHS in advance of all hazardous materials to be used during a project.
 - d. Inform building occupants of hazards.
 - e. Supply a copy of all hazardous material MSDSs to DEHS.
 - f. Verify that each container used is labeled in accordance with this HCP.

Recordkeeping

Keep copies of all records in your departmental files. Follow these guidelines:

RECORD TYPE	RETENTION
MSDS	As long as product is used/stored in department
MSDS (employee exposure incident)	Indefinitely
Chemical Inventory	As long as it is current
Training	Indefinitely
Other	Call DEHS

Program Review

Review all components of this program annually to ensure that it is current, accurate, and complete. Contact DEHS 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/used, and/or
- There are changes in any other elements of work affected by this program.

APPENDIX B TRAINING RECORD FORM

Course Title:

Trainer(s)/title:

Sponsoring organization:

Contact person:

Phone:

Department/Group/Employees being trained:

Contact person:

Phone:

Date and time(s) of training:

Location of training:

Type of training:

Initial:

Refresher:

New employee:

Other:

Required for new employees:

Yes:

No:

Refresher training required:

Yes:

No:

Frequency:

Number of people trained on this subject:

Training materials:

(Please attach a copy of sign-in sheets, handouts, outlines, AV materials, and evaluation procedures used.)

Evaluation procedures:

Quiz:

Demonstration:

Other:

Instructor qualifications:

Additional information:

Please forward this form and any attachments to DEHS, Tamarack Hall, Room F02, IUN.