



**Department of Environmental Health & Safety**

# Hazard Communications Program

Issued by:	Jeff Campbell
Date Effective:	December 2010

## INDEX

SCOPE	4
PURPOSE	4
REFERENCES	4
DEFINITIONS	4
HAZARD DETERMINATION	7
CHEMICAL INVENTORY	7
ORDERING HAZARDOUS CHEMICALS	7
RECEIPT OF NEW MSDS	8
CONTRACTORS OR OTHER OUTSIDE EMPLOYEES	9
LABELING	10
LABELING REQUIREMENTS OF ARTICLES	10
PORTABLE CONTAINERS	11
TRAINING	11
TRANSFERRED EMPLOYEES	12
RESPONSIBILITIES	12
CHEMICAL WASTE GENERATION	13
SHIPPING HAZARDOUS CHEMICALS	13
EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW	14
RECORDS	14
APPENDIX 1 – YOUR CHEMICAL INVENTORY	15
APPENDIX 2 – WEB RESOURCES	16
APPENDIX 3 – LABELING RECOMMENDATIONS FOR	17

PORTABLE CONTAINERS

APPENDIX 4 – NFPA AND HMIS SYSTEM OVERVIEW

19

## **HAZARD COMMUNICATION PROGRAM (FOR NON-LABORATORY APPLICATION)**

### **1.0 SCOPE**

This policy applies to all OHIO University (OHIO) personnel regulated by the Occupational Safety and Health Administration (OSHA), Hazard Communication Standard, which requires “all employers to provide information to their employees about the hazardous chemicals to which they are exposed”. All OHIO and contractor personnel performing work at OHIO facilities are subject to the requirements of this program. All work performed in non-laboratory settings that are not regulated by the OSHA "Occupational Exposure to Hazardous Chemicals in Laboratories" shall be covered by this program.

### **2.0 PURPOSE**

This program is designed to provide a better understanding of how chemicals are to be properly handled, to develop an understanding of the hazards associated with the chemicals used and to ensure training for hazard communication. The intent is also to establish guidelines for acquisition of chemicals into the workplace. The requirements of this procedure are designed to comply with regulations of the Ohio Public Employees Risk Reduction Program (PERRP), Hazard Communication Standard.

### **3.0 REFERENCES AND DEFINITIONS**

#### **3.1 REFERENCES**

- 3.1.1 U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), Hazard Communication, 29 CFR 1910.1200.

#### **3.2 DEFINITIONS**

- 3.2.1 *Article* means a manufactured item:
  - (i) Which is formed to a specific shape or design during manufacture;
  - (ii) Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
  - (iii) Which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.
- 3.2.2 *Chemical* means any element, chemical compound or mixture of elements and/or compounds.

- 3.2.3 *Chemical manufacturer* means an employer with a workplace where chemical(s) are produced for use or distribution.
- 3.2.4 *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.
- 3.2.5 *Container* means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.
- 3.2.6 *Employee* means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.
- 3.2.7 *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.
- 3.2.8 *Exposure or exposed* means that an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes potential (e.g. accidental or possible) exposure.
- 3.2.9 *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.
- 3.2.10 *Hazardous chemical* means any chemical which is a physical hazard or health hazard.
- 3.2.11 *Hazard warning* means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which conveys the hazard(s) of the chemical(s) in the container(s).
- 3.2.12 *Health hazard* means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term health hazard includes chemicals which are carcinogens, toxic or highly toxic agents,

reproductive toxins, irritants corrosives, sensitizers, hepatotoxins nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.

- 3.2.13 *Identity* means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.
- 3.2.14 *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 in which it is transferred.
- 3.2.15 *Label* means any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.
- 3.2.16 *Laboratory* means 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.
- 3.2.17 *Laboratory Scale* means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.
- 3.2.18 *Material Safety Data Sheet (MSDS)* means written or printed material concerning a hazardous chemical prepared by the manufacturer in order to comply with the Hazard Communication Standard.
- 3.2.19 *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.
- 3.2.20 *Physical hazard* means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.
- 3.2.21 *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.
- 3.2.22 *Use* means to package, handle, react, or transfer.

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

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

## 4.0 GENERAL

### 4.1 Hazard Determination

4.1.1 Since OHIO does not manufacture chemical intermediates or compounds. OHIO shall rely on Material Safety Data Sheets (MSDS) from its suppliers to meet the chemical hazard determination requirements of the PERRP Hazard Communication Standard.

### 4.2 Chemical Inventory, Book, or File

4.2.1 A chemical inventory shall be maintained for each department where hazard communication applies (SEE APPENDIX 1).

4.2.2 A MSDS book (or file) shall be maintained for each department where hazard communication applies.

### 4.3 Ordering Hazardous Chemicals

4.3.1 No chemical shall be introduced into OHIO facilities without an MSDS for it. MSDS information should be evaluated before the decision to purchase the chemical is made and provisions for safe handling made before purchase.

4.3.2 It is the responsibility of the person ordering the chemical to review the affected department's MSDS book to insure that there is a current MSDS for the material being ordered.

4.3.3 If no MSDS is found in the department MSDS book then the employee requesting the chemical purchase shall obtain an MSDS from the manufacturer or supplier prior to ordering the hazardous material, place a copy in the MSDS book and supply a copy to EHS for the master MSDS file.

- 4.3.4 Vendors shall be required to provide an MSDS for the sample product and the receiving party must place the MSDS in the MSDS book where the product is tested prior to permitting the sample into OHIO facilities.
  - 4.3.5 If the product is added to the inventory a copy of the MSDS shall be sent to EHS. Write on it the date and the OHIO Department using the material.
  - 4.3.6 If the sample product is not added to the inventory it's MSDS shall be removed from the departmental MSDS book and archived (add date of use and location of use).
  - 4.3.7 Any supervisor who finds a chemical in non-laboratory inventory but no MSDS must immediately request an MSDS from the manufacturer or supplier by phone or in writing. Once the MSDS is received, a copy shall be sent to EHS Office in order that the master MSDS book and master MSDS list may be updated. The Department Chairman, Supervisor, or Designate shall update the department chemical inventory and MSDS book.
  - 4.3.8 Employees who find that the department MSDS book is not accurate shall immediately notify their Department Chairman, Supervisor, or Designate.
- 4.4 Receipt of New MSDS
- 4.4.1 Each product for which a new MSDS is received shall be added to the affected department MSDS book and master MSDS file.
  - 4.4.2 The master chemical inventory shall also be updated immediately.
- 4.5 Chemicals No Longer In Use, On-Site, or Purchased.
- 4.5.1 MSDS for chemicals which are no longer purchased, in use, or in OU facilities shall be archived.
  - 4.5.2 The Department Chairman, Supervisor, or Designate shall mark its location of use and date when replaced (see section 4.5.3) on the MSDS and send it to EHS Office to be archived.
  - 4.5.3 If a department phases out a hazardous chemical, it is the department's Chairman, Supervision, or Designate responsibility to remove the MSDS from the department MSDS book and line through the name of the chemical on the departments' inventory list.



- 4.5.4 The removed MSDS shall be submitted to EHS requesting that the removed MSDS be archived.
- 4.5.5 EHS shall ensure that all archived MSDS have the location of use noted, date when archived and that they are maintained for at least 30 years.
- 4.6 Contractors or Other Outside Employers working in OHIO facilities.
- 4.6.1 Any contractor or other outside employer who must bring hazardous materials into OHIO facilities for completion of their work must have copies of their MSDS's on site, and provide a copy to the affected department chairman or supervision where the work is to take place through their OHIO contact, if requested to do so.
- 4.6.2 All OHIO project managers shall include the following information for contractors or service employers in their project specifications and/or documents:
- Where MSD Sheets may be found for chemicals which are in use in specific areas where the work is being done by the contractor.
  - How an MSDS may be obtained if requested by a contractors employee.
  - Information concerning how the OHIO labeling system works, as described in section 4.7.
  - Provide MSDS to contractors supervision for areas in which contractor employees have potential exposure to hazardous chemicals during work activities.
  - Emergency evacuation information from the area in which the contractor's personnel work.
  - Specific information concerning how hazardous chemicals may be detected if contractor employees become exposed.
  - Hazards associated with unlabeled piping in the area which inadvertently may leak or be punctured from contractors activities.
- 4.6.3 The above information shall be provided to the contractor prior to commencement of contracted work, by the OHIO Project Manager.
- 4.6.4 All prime contractors will provide this information to all their sub-contractors.

4.6.5 It is recommended that this information be relayed to each other at the first project meeting at the start of the project.

#### 4.7 Labeling

4.7.1 It is the responsibility of the person who purchased and received the chemical to determine the adequacy of the hazardous chemicals label according to the following criteria:

- The identity of the hazardous chemical must be on the label.
- Appropriate hazard warnings, for example:
  - Health Hazard rating
  - Fire Hazard rating
  - Reactivity rating Specific Rating
  - Target organ (primary)
- Suggested Personal Protective Equipment
- Symptoms of exposure
- The name and address of the chemical manufacturer, importer or other responsible party.

4.7.2 NFPA, HMIS, and DOT labeling systems are used on campus. See appendix 4 for overview information on NFPA and HMIS systems.

4.7.3 The person who purchased and received the chemical shall ensure that the MSDS is included in the Department MSDS Book, update the inventory, and forward a copy of the MSDS to the EHS if this had not been accomplished when the material was ordered.

#### 4.8 Labeling Requirements of Articles

4.8.1 "Articles" (see definition section 3.2) received need not be labeled as long as they are not rendered hazardous through manipulation of the article such as welding, grinding or other actions which affect the article and cause it to become hazardous to employees.

Example:

A steel I beam is considered an article until it is welded into place. The I beam and welding rod will give off toxic materials through the action of

welding. If the end use of an article will render it hazardous then the article must be labeled. OSHA requires, however, that only one label need be provided with the first steel shipment under these conditions.

#### 4.9 Portable Containers

- 4.9.1 All portable containers are to be labeled. See Appendix 3 for labeling recommendations.
- 4.9.2 Portable containers of solvent or other chemicals need not be labeled if their contents are fully used by the employee(s) who dispensed it during the shift within which it was dispensed, and if the portable container is under the direct control of the employee(s) at all times.

#### 4.10 Training

- 4.10.1 Basic training for all employees potentially exposed to hazardous chemicals shall be conducted when they are hired. Records of this training shall be maintained by the employees supervisor/department. This training shall address the following:
  - Material Safety Data Sheets usage, location, availability, and terminology.
  - Hazards associated with the chemicals within the area they work.
  - Specific chemical handling procedures for chemicals employees personally work with.
  - The requirements of the "Hazard Communication Program" (29 CFR 1910.1200).
  - The hazards of non-routine jobs (such as certain maintenance operations).
  - The labeling system and its interpretation.
  - The methods an employee may use to detect the presence of a hazardous chemical or the spill of such a chemical and the measures an employee may take to protect himself from these hazards (i.e. personal protective equipment, work practices, and emergency procedures).
  - Also any methods that OHIO has used to evaluate employee exposures during normal working conditions, such as exposure monitoring or other pertinent methods.
  - Procedures for conducting "non-routine" tasks safely.

#### 4.11 Transferred employees

4.11.1 An employee who transfers to a new department shall be trained using the training outline found in section 4.10 above.

4.12 Periodic re-training is recommended by EHS and required if new materials are brought into the workplace.

### 5.0 Responsibilities

#### 5.1 Environmental Health and Safety

5.1.1 Ensures that overall Hazard Communication program is functioning properly, through periodic auditing and review.

5.1.2 Insures that the master chemical inventory list is updated as new MSDS are received from departmental orders.

5.1.3 Archive all old or obsolete MSDS.

5.1.4 Requests additional information of the chemical manufacturer when necessary to thoroughly review MSDS.

5.1.5 Provide consultation and training to the campus community.

#### 5.2 The Department Chair, Supervisor or Designate Shall:

5.2.1 Ensures that the Hazard Communication Program is functioning properly within affected areas.

5.2.2 Conducts spot checks to determine if the departmental MSDS book and inventory are accurate compared to the physical inventory.

5.2.3 Ensures that the Department Inventory and MSDS book are updated when manufacturers updated MSDS are received.

5.2.4 Coordinates and communicates HazCom activities with the Department personnel.

5.2.5 Ensures that employees adhere to this procedure.

5.2.6 Reviews new MSDS with all potentially exposed employees.

- 5.2.7 Reviews MSDS with new employees or newly transferred employees with which they will work and explains the location of the department MSDS book and the chemical inventory.
- 5.2.8 Evaluate and develop safety procedures, training, and hazard communication strategies to address all “non-routine tasks.”
- 5.3 Employees
  - 5.3.1 Adhere to this procedure.
  - 5.3.2 Review and understanding the hazards associated with the materials working with.
  - 5.3.3 Know where the chemical inventory and MSDS book is located in your area and areas where you may be temporarily assigned.
- 5.4 Outside Personnel
  - 5.4.1 All contractors and subcontractor personnel are required to comply with this procedure.
  - 5.4.2 Provide MSDS to the Department Chairman or Supervision for hazardous chemicals brought into OHIO facilities for use in completion of assigned work, if requested.
- 5.5 Chemical Waste Generation
  - 5.5.1 Persons who generate chemical waste who are responsible for preparing and packaging chemical waste according to the "Waste Packaging Instructions" found on EHS website, [www.ohio.edu/ehs](http://www.ohio.edu/ehs) or by contacting the Hazardous Material Manager.
  - 5.5.2 Contractors are responsible for hazardous waste disposal from waste generated by their activities, unless the arrangements are made beforehand with OHIO.
- 5.6 Shipping of Hazardous Chemicals
  - 5.6.1 Any person shipping hazardous chemicals from the site of generation must have specific training for safe transportation of those hazardous materials. For specific requirements check the EHS website, [www.ohio.edu/ehs](http://www.ohio.edu/ehs) or contact the Hazardous Materials Manager.
- 5.7 Emergency Planning and Community Right to Know

- 5.7.1 Persons having responsibility for inventorying chemicals in the workplace shall follow the guidance found in the Emergency Planning Community Right-to-Know Act (EPCRA) at <http://www.epa.gov/oem/content/epcra/index.htm>.
- 5.7.2 Quantities exceeding the reporting limits shall be made known to EHS. Minimum reporting quantities are typically 500 pounds or more for storing chemicals. There are other requirements for chemical releases. See the EHS Hazardous Materials Manager for information.
- 5.8 Records
  - 5.8.1 The Master Chemical Inventory and Master MSDS File shall be maintained by Environmental Health and Safety.
  - 5.8.2 Each Department shall maintain a Departmental Chemical Inventory and the Departmental MSDS Book.

AMM: 02/10/2008

## **APPENDIX 1**

**YOUR CHEMICAL INVENTORY SHOULD BE HERE !**

## APPENDIX 2

### WEB RESOURCES

OHIO Environmental Health & Safety

<http://www.ohio.edu/ehs>

OHIO Hazard Communication – Model Program

<http://www.ohio.edu/ehs/docs/hazcomm07.pdf>

OSHA Hazard Communication Standard

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARD  
S&p\\_id=10099](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARD&p_id=10099)



**APPENDIX 3**

**RECOMMENDED LABELING FOR  
PORTABLE CONTAINERS**

Portable Containers should be labeled with:

1. An identifying name that provides enough information to look-up a material safety data sheet. This typically includes a manufacturer and a product name.
2. The date the chemical is put into the portable container.
3. The name of the employee, department or shop that is responsible for the portable container.

If possible, also include:

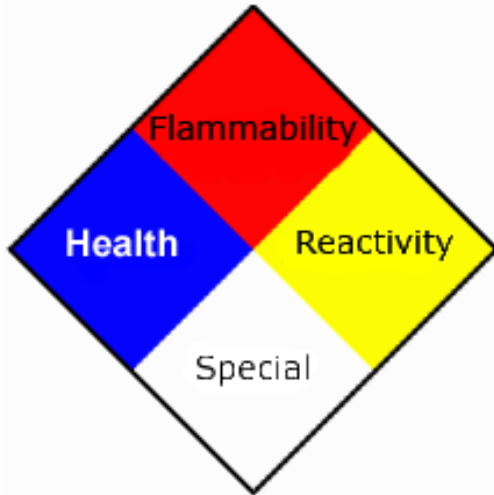
1. Basic hazard information. For example: flammable, toxic or irritating.
2. Personal protective equipment requirements. For example: Wear nitrile gloves and splash goggles during use.

## **APPENDIX 4**

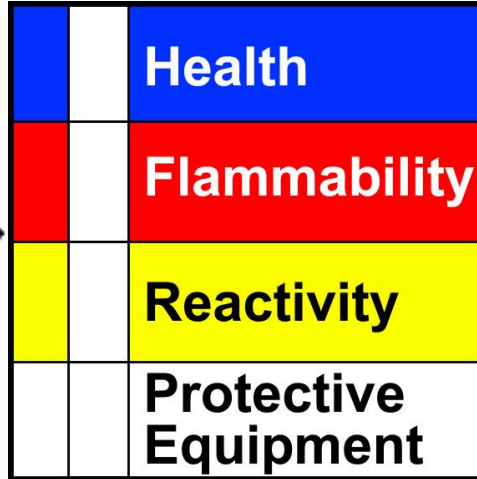
### **NFPA AND HMIS SYSTEM OVERVIEWS**

This information is provided for reference only. Use of the NFPA or HMIS system is not required. Contact EHS or visit the website for more detailed information, [www.ohio.edu/ehs](http://www.ohio.edu/ehs).

NFPA Diamond  
(National Fire  
Protection Association)



HMIS Rating  
(Hazardous Materials  
Identification System)



For both systems:

- 0 = Minimal Hazard
- 1 = Slight Hazard
- 2 = Moderate Hazard
- 3 = Serious Hazard
- 4 = Severe Hazard

0 does not mean NO hazard.

These ratings are only a quick overview.  
Please see the Material Safety Data Sheet for  
specific information about the chemical or product.