

**Hazard
Communication
Program**

HARFORD COMMUNITY COLLEGE

Harford Community College

401 Thomas Run Road
Bel Air, MD 21015-1698
(443-412-2000)
www.harford.edu

CONTENTS

I. Hazard Communication Program	p. 1
A. College Practices in Hazard Communication	p. 1
B. Employee Rights Under the Hazard Communication Standard	p. 1
C. Employee Responsibilities Under the Hazard Communication Standard	p. 2
D. Chemical Information List	p. 2
E. Safety Data Sheets	p. 3
F. Labeling Requirements	p. 4
G. Employee Information and Training	p. 5
H. Hazardous Non-Routine Tasks	p. 6
I. Chemicals in Unlabeled Pipes	p. 7
J. Multi-Employer (Contractor) Hazard Communication	p. 7
K. Updating the Hazard Communication Program	p. 7
II. Hazard Communication Forms	p. 8
A. Chemical Information List Addition/Deletion Form	p. 9
B. Safety Data Sheet Request Form	p. 10
C. Verification of Orientation to the Hazard Communication Program Form	p. 11
D. Verification of Employee Training in Hazardous Chemical Safety Form	p. 12
E. Verification of Non-Routine Task Training Form	p. 13
F. Sample Letter to Contractors Regarding Hazard Communication	p. 14
G. Verification of Contracted Employee Training Form	p. 15
H. Hazard Communication Program Review Statement	p. 17
III. Hazard Communication Training Guides	p. 18
A. Orientation to the Hazard Communication Program	p. 19
B. Employee Training in Hazardous Chemical Safety	p. 26
IV. Hazard Communication Appendices	p. 36
A. Chemical Information List	p. 37
B. Applicable State and Federal Regulations	p. 38
C. NFPA Labeling System	p. 39
D. Locations of Hazard Communication Information	p. 43

I. Hazard Communication Program

A. College Practices in Hazard Communication

It is the intent of Harford Community College to maintain a safe and healthy environment for students, visitors, employees and the surrounding community. To accomplish this goal, it is Harford Community College's established practice that all full and part-time faculty, staff, student employees and contractor employees who may come in contact with hazardous chemicals in the workplace receive information concerning the particular dangers which the chemicals pose. Employees will receive documented training in the methods by which they may work with and around these chemicals in a safe manner. In accordance with the provisions of the Maryland Access to Information about Hazardous and Toxic Substances Law, COMAR 09.12.33, and the OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations 1910.1200, Harford Community College establishes, implements, and maintains a hazard communication program. The written Hazard Communication Program is available in the following locations for review by any interested employee or student:

- Building Representative Office (See Hazard Communication Appendices)
- Health and Safety Webpage
- Computer Network G drive

B. Employee Rights under the Hazard Communication Standard

The Hazard Communication Standard (29 CFR 1910.1200), the Maryland Access to Information about Hazardous and Toxic Substances Law, and COMAR 09.12.33, grant the employees of Harford Community College certain rights. These rights include:

- The right to have the physical and health hazards of the workplace evaluated by the employer;
- The right to be informed of the hazardous chemicals to which the employee could be exposed, either during the normal course of work or in the event of a foreseeable emergency;
- The right to be informed of those hazards or hazardous chemicals when the employee is initially assigned into the work area or whenever new physical or health hazards are introduced;
- The right to be informed as to procedures which are available to protect the employee from these hazards, to include personal protective equipment such as eye protection; appropriate work practices such as housekeeping, and engineering controls such as laboratory hoods;

- The right to have a written hazard communication program which includes, among other pertinent topics:
 - A hazardous chemical inventory, which is a list of the hazardous chemicals present in the workplace;
 - Labeling practices which ensure that containers of hazardous chemicals that arrive at Harford Community College, are generated in-house, or are shipped from campus facilities are appropriately labeled;
 - A program for obtaining and allowing employees access to Safety Data Sheets (SDS) for the hazardous materials used in the work environment;
 - A program for providing appropriate training on the details of the above mentioned topics as well as methods and observations that may be used to detect the presence or release of hazardous chemicals.

C. Employee Responsibilities under the Hazard Communication Standard

The employees of Harford Community College have the following responsibilities:

- To know where to obtain information about the hazardous chemicals in their work area and to read and understand the hazardous chemical labels and SDS;
- To follow all of the guidelines of the Hazard Communication Program;
- To handle the hazardous chemicals safely as outlined on the Safety Data Sheets;
- To use the appropriate personal protective equipment;
- To observe safe work practices;
- To receive and document the required training on the College's Hazard Communication Program.

D. Chemical Information List

Harford Community College is required to maintain a current list of all of the hazardous chemicals used or stored on campus. This Chemical Information List (CIL) includes the common name and chemical name of the substances in alphabetical order, the location of the chemical, the date the chemical was added to the list, and the date the chemical was removed from inventory. Every two years Harford Community College submits the revised Chemical Information List to the Maryland Department of the Environment. **The Coordinator of Campus Operations is responsible for submitting the list.** Harford Community College will maintain each Chemical Information List for forty years. The current list may be viewed in the Hazard Communication Appendices.

All employees have the right to access the list of chemicals used in their building. A separate Building Chemical Information List shall be on file with the building representative. It shall be the responsibility of each employee who orders and receives a new hazardous chemical to notify the building occupants and the Coordinator of Campus Operations of the presence of the new hazard. Any new chemical brought into the department or building must be added to the Building Chemical Information List and the master Chemical Information List within thirty days. An employee who orders or

receives a hazardous chemical shall use the form entitled Chemical Information List Additions to/Deletions Form, to notify the Coordinator of Campus Operations of a new chemical in the workplace. A copy of the completed Chemical Information List Additions to/Deletions Form shall be attached to the front of the building Chemical Information List, for one calendar month after it is added to the Chemical Information List. If a chemical is removed from inventory, the Coordinator of Campus Operations shall be notified using the same form, and the date removed from inventory added to the building list. There will be one employee designated within each building or department who will be responsible for updating the Building Chemical Information List based on the information provided on the Chemical Information List Additions to/Deletions Form. An employee who purchases a hazardous chemical and brings the chemical onto campus is responsible for obtaining the SDS for that chemical and having the chemical added to the CIL. This procedure is reviewed in training.

E. Safety Data Sheets

1. Maintaining and Updating SDSs

The Safety Data Sheet (SDS) is used to relay information about the chemical to the user; it is provided by the manufacturer or the distributor and includes information such as known hazards, flammability, recommended personal protective equipment, proper storage, and spill clean-up requirements.

OSHA requires that the first shipment to the consumer of any hazardous chemical must include a SDS; successive shipments of the same chemical do not require another copy of the SDS unless the manufacturer or importer has changed the sheet. When an updated copy of an SDS is received, the new copy shall replace the older version in the Harford Community College files.

Each department or building shall maintain a file of the SDSs for all hazardous chemicals used in that area; a second copy of the SDS shall be filed with the Coordinator of Campus Operations, who maintains a campus master list of all SDS. An employee who receives the SDS directly from the manufacturer is required to forward a copy of the sheet to the Coordinator of Campus Operations within 5 days and file the SDS in the building SDS file. If the Coordinator of Campus Operations receives the SDS, a copy will be forwarded to the user upon receipt. It shall be the responsibility of the person who ordered and received the hazardous chemical to ensure that the SDS was received from the distributor. The user shall contact the distributor directly to obtain any missing SDS; the Purchasing Office shall be notified if the user has any problems obtaining the sheets. It shall be the responsibility of the Purchasing Office to resolve any vendor conflicts in obtaining SDS.

Each department or building will designate an employee who will be responsible and will receive training to conduct an annual chemical inventory; the employee shall ensure that each hazardous chemical stored or used in that area is listed on the Chemical Information List and that a SDS is on file for each chemical. Each user

department shall submit the name of the designated employee to the Coordinator of Campus Operations.

2. Employee Access to SDSs

The Safety Data Sheets must be readily available to all employees on all shifts who may come into contact with the chemicals. See Hazard Communications Appendices, Hazard Communication Program/SDS/Chemical Information List Location, which indicates, per building, where the SDS are filed. SDS are also available on our online database, MSDS Online: Each employee, during training, and prior to an initial work assignment in a new area, shall be shown the location of the SDS files. It is the responsibility of each employee to read the SDS for each chemical used prior to first use, to obey the cautions listed, and to utilize the personal protective equipment required to handle that chemical safely. An employee who is not provided access to the SDS within twenty-four hours of request may refuse to work with the chemical until the SDS is provided. One free copy or the means of making a copy, of any requested SDS shall be provided to each employee within five working days of a request. The employee may request the copy from either the supervisor or from the Coordinator of Campus Operations by submitting the form entitled Safety Data Sheet Request Form (see Hazard Communication Forms).

F. Labeling Requirements

1. Incoming (primary) Containers

All hazardous chemicals received from a manufacturer or distributor must contain a prominently displayed, legible label, in English, which includes:

- The identity of the container contents;
- The manufacturer's name and address;
- Appropriate hazard warnings per SDS, to include ratings for health, flammability, and reactivity.

–
It is the responsibility of the employee who orders/receives the hazardous chemical to ensure that the incoming container arrives with the labeling requirements met. The employee shall contact the vendor if the label is absent or incomplete. The Purchasing Office shall resolve any vendor conflicts involving absent or incomplete labels. Existing labels on incoming containers of hazardous chemicals shall not be removed or defaced unless the container is immediately marked with the required information.

2. In-House (secondary) Containers

Portable containers into which hazardous materials are transferred from labeled containers will need to be labeled except if it is intended for the immediate use of the

employee who transferred the chemical. The label shall include the common and chemical name and the appropriate hazard warning.

3. Labeling Responsibility

It is the responsibility of the Coordinator of Campus Operations to ensure that the labeling requirements are met and maintained. The Coordinator of Campus Operations may designate and train an individual within a department or building that uses or stores hazardous chemicals to recognize inappropriately labeled containers and label them properly.

Each department or building shall have access to labels and shall post in areas of use a chart or poster describing the labeling system being used. The supervisor may obtain information from Purchasing if labels and safety equipment are needed. Each employee shall be trained to understand the warning label system used in the work area. An example of the new GHS labeling system being used by most departments for secondary containers is seen in Hazard Communication Appendices.

G. Employee Information and Training

Harford Community College is required to provide hazard communication training to all full and part time employees who may come into contact with hazardous chemicals in the workplace. Employees shall know how to obtain and use the appropriate hazard information so as to ensure a safe and healthy work environment. The Coordinator of Campus Operations is required to coordinate the training. The training shall be done for all new employees, or a current employee being reassigned into an area that has new hazards, or when there is a change in the chemicals or chemical hazard. It is the responsibility of the supervisor to assess if a new hazard is being introduced into the work environment. The training shall be documented; upon completion of training, the supervisor or Coordinator of Campus Operations and employee shall sign the appropriate Verification of Training form. There are two versions of training documentation; both may be viewed in Hazard Communication Training Guides. The Verification of Orientation to the Hazard Communication Program Form is signed by all employees on campus; the form entitled Verification of Employee Training in Hazardous Chemical Safety Form is signed by employees who receive job-specific training in chemical safety. The supervisor shall sign training verification forms and copies shall be forwarded to the Coordinator of Campus Operations and Human Resource Office. The Coordinator of Campus Operations will coordinate the audit for one hundred per cent compliance.

All full and part time Harford Community College employees shall receive the orientation so that they may know their rights and responsibilities under the Hazard Communication Standard; the following information shall be covered in detail:

- An overview of the requirements of the Hazard Communication Standard, to include the obligation of Harford Community College to provide training to all employees on the details of the Hazard Communication Program.

- The location of the building and campus Chemical Information Lists and the written Hazard Communication Program.
- The location and availability of Safety Data Sheets (SDS) (MSDS Online).
- Training in how to handle hazardous material spills/releases.

A copy of the training may be viewed in Hazard Communication Training Guides, entitled Orientation to the Hazard Communication Program.

Employees whose jobs are to assist in the implementation of the Hazard Communication Program shall receive training from the appropriate supervisor in understanding and carrying out the job duties.

Employees who work with or in the vicinity of hazardous chemicals shall receive specific training in understanding the hazards and working with these chemicals in a safe manner. The training for this latter group shall be conducted in a classroom setting with job-specific information provided. A copy of the basic information that will be provided to each group of employees in this category can be viewed in Hazard Communication Training Guides, entitled Employee Training in Hazardous Chemical Safety. The following information is included:

- Directions on how to read, understand, and use the information found in an SDS;
- Training on how to read and understand the labeling system and hazard codes;
- Review of the hazardous chemicals found in the work environment, to include the physical and health hazards associated with the chemicals;
- Training on how hazardous non-routine tasks will be communicated;
- Training in the methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area;
- The measures employees can take to protect themselves from the hazards, including the specific measures Harford Community College has implemented to protect employees from exposure to hazardous chemicals (to include appropriate work practices, emergency procedures, and training in the use of personal protective equipment).

All supervisors may provide additional training and demonstrate appropriate safety techniques, to supplement the training provided under the Hazard Communication Program. Supervisors shall document the additional training and keep the records on file within the department.

H. Hazardous Non-Routine Tasks

Employees who perform hazardous, non-routine tasks will be given information about the hazardous chemicals to which they may be exposed during the non-routine task prior to starting the task. The supervisor shall provide the training and information and shall document the additional training by using the form entitled Verification of Non-Routine Task Training Form (see Hazard Communication Forms).

The information shall include:

- The protective/safety measures the employee can take, to include personal protective equipment;
- The measures Harford Community College has taken to lessen the hazards, to include appropriate ventilation, the presence of another employee, and the availability of training for special protective equipment;
- The emergency procedures that have been developed for the particular task.

I. Chemicals in Unlabeled Pipes

Work activities are sometimes performed by employees in areas where substances or chemicals are transferred through unlabeled pipes. Pipes are not required to be labeled; however, employees must be informed of their content. The following substances may be in pipes at Harford Community College: potable water, sewage, oil, air conditioning (which may contain refrigerants), and natural gas. If employees will be required to work in areas where chemicals are transferred through unlabeled pipes, the supervisor will provide information regarding the chemicals in the pipes, their potential hazards, and the safety precautions to be taken.

J. Multi-Employer (contractor) Hazard Communication

Independent contractors working in a building that stores or uses hazardous chemicals are entitled to view the campus Hazard Communication Program, the Chemical Information List and have access to the Safety Data Sheets for that work area. The hiring supervisor shall notify the Purchasing Office if the hiring action requires the exchange of information. It shall be the responsibility of the Purchasing Office, when issuing a purchase order/contract, to include a letter and the form entitled Verification of Contracted Employee Workplace Training Form, informing the independent contractor of the right to access the above mentioned information. (See sample letter and form in Hazard Communication Forms.). The form indicates how the contractor will access the information. If the independent contractor will use hazardous chemicals while working at Harford Community College, an inventory of the hazardous chemicals and the Safety Data Sheets for those chemicals shall be submitted to the hiring supervisor.

K. Updating the Hazard Communication Program

Harford Community College will review and, if necessary, revise the Hazard Communication Program annually to ensure that the information contained therein is current and appropriate to safely protect the individuals who use or may come into contact with hazardous chemicals in the workplace. Upon completion of the review, the form entitled Hazard Communication Program Review Statement (see Hazard Communication Forms) will be signed and dated.

II. Hazard Communication Forms

Form A
Additions to/Deletions from Chemical Information List Form

Common Name	Chemical Name	Storage/Use Location	Date Added to List	Date Removed from Inventory

Instructions:

1. Each employee who orders/receives a hazardous chemical is responsible for filling out this form and forwarding a copy of the form to the Coordinator of Campus Operations within 30 days of receiving the chemical.
2. When a new hazardous chemical is brought into the workplace, add the name of the chemical to the above table. Indicate the common (if applicable) name and the chemical name, the building and room number where the chemical will be used/stored and indicate the date the chemical was added to the list.
3. Indicate any chemical that is permanently removed from inventory by filling out the above table and forwarding a copy of this form to the safety office.
4. This form shall be posted in the front of the Building Chemical Information List for one calendar month.
5. A designated employee will update the information to the Building Chemical Information List.

Form B
Safety Data Sheet (SDS) Request Form

To: _____
(Coordinator of Campus Operations or Supervisor)

From: _____
(Employee Name)

Dept.: _____

Date of request: _____

Chemical/common name: _____

Date SDS received (must be within five working days): _____

Instructions: An employee may request a copy of a Safety Data Sheet for any hazardous chemical that is in the employee's work area. The copy shall be provided within five working days.

Please note: each employee has the right to review all Safety Data Sheets prior to working with the hazardous chemical. The employee may refuse to work with the chemical if access to the SDS is not provided. The employee and the Coordinator of Campus Operations/supervisor each receive a copy of this completed form.

Form C
Verification of Orientation to the Hazard Communication Program Form

Employee Name: _____

Department: _____

I certify that I have received (please circle the appropriate training method) written/verbal training, which provided me with a basic orientation in Harford Community College's Hazard Communication Program and that I am familiar with the following components of the program:

- Federal and Maryland State Regulations and Maryland Laws require Harford Community College to establish, implement, and maintain a written Hazard Communication Program for the purpose of establishing safe workplace habits regarding chemical use and storage.
- Employees are allowed access to the written Hazard Communication Program, the Chemical Information List, and the Safety Data Sheets; I have been informed of the location of this information.
- All employees shall receive a level of training appropriate to their exposure and use of hazardous chemicals.
- All employees have an obligation to participate in Hazard Communication Program training and to document this training.
- An exchange of information will occur between Harford Community College and outside contractors if either party will be exposed to chemical hazards as a result of the contracted work.
- All employees are required to follow the procedures established by the Hazard Communication Program.
- Procedures are in place for the handling of chemical spills and suspected chemical releases to the environment and each employee is informed of these procedures.

Employee signature: _____

Trainer/supervisor signature: _____

Date: _____

All employees must have the supervisor's signature. The supervisor will provide the employee with a copy of this form and send copies to Human Resources for inclusion with the Personnel File and to the Coordinator of Campus Operations.

Form D
Verification of Employee Training in Hazardous Chemical Safety Form

This checklist outlines the sections that must be covered during hazard communication training.

Employee Name (Print): _____

Department: _____

I certify that I have received written/verbal training (please circle the appropriate training method) which provided me with training in hazardous chemical safety in compliance with Harford Community College's Hazard Communication Program and that I am familiar with the following components of the program:

- Overview of requirements contained in the Hazard Communication Standard
- Review of chemicals present in the workplace
- Location/availability of Harford Community College Hazard Communication Program
- Location of departmental and college-wide Chemical Inventory List
- Location of departmental and college-wide SDS files
- Discussion of where to find physical data and health effects of chemicals
- Discussion of ways to determine the presence or release of hazardous chemicals into the work area
- Discussion of safe work practices and emergency procedures
- Discussion of how to determine appropriate personal protective equipment
- Discussion of how to read labels and SDS
- Review of steps taken by the department to reduce or prevent exposure to hazardous chemicals
- Discussion of supervisor's responsibilities with respect to non-routine tasks and introduction of new chemicals into the workplace

Employee signature: _____

Trainer/supervisor signature: _____

Date: _____

File original with Coordinator of Campus Operations. Provide a copy to employee and employee supervisor.

Form E
Verification of Non-Routine Task Training Form

List the specific hazards of the job:

List the protective and safety measures to be taken by the employee while performing the job:

Describe the measures to be taken to reduce hazards:

Describe specific spill or leak clean-up procedures:

List specific hazards associated with the job environment, to include containers of other chemicals, pipes containing hazardous substances, etc.:

Supervisor Name: _____

Signature: _____

Employee Name: _____

Signature: _____

Date of Training: _____

Supervisor must keep original on file, provide a copy to the employee, and forward a copy to the Coordinator of Campus Operations.

Form F
Sample Letter to Contractors Regarding Hazard Communication

To: Company name and address

From:

Date:

RE: Hazard Communication Program

The building/department your company is being contracted to work in uses or stores hazardous chemicals. Upon beginning the contracted work, the project manager or a company representative will be required to read and sign a Verification of Contracted Employee Training Form. A copy is attached to indicate what information will be needed. The Harford Community College hiring supervisor with whom your company will be working will show the employees of your company the location of the Chemical Information List, the written Hazard Communication Program and the Safety Data Sheets for that particular area. The attached form will be completed with the hiring supervisor and your company will receive a copy.

If the contracted work at Harford Community College will bring hazardous chemicals into the work area, your company may be required to submit to the hiring supervisor, upon request, a list of the hazardous chemicals; copies of their Safety Data Sheets will be required. While working at Harford Community College your employees will be required to follow all of the safety guidelines as recommended in the Safety Data Sheets, to include appropriate work habits and personal protective equipment.

Form G
Verification of Contracted Employee Training Form

Harford Community College Supervisor Name:

Company Name Contracted Employee:

Type of Work:

Estimated Work Dates:

Location of Work: Building/Room:

Other Areas that might be affected:

Contractor obligations, when requested by hiring supervisor:

- Hazardous chemical list: Please attach if requested by hiring supervisor.
- Safety Data Sheets for above chemicals: If requested, provide copies to the hiring supervisor who will forward them to the Coordinator of Campus Operations.

Harford Community College obligations:

- Are Hazardous Chemicals stored or used in the area where the contracted employees will be working? Yes / No
- If the above statement is answered yes, then training on Harford Community College's Hazard Communication Program must be provided to each contracted employee.
- Describe below where the nearest Hazard Communication Program, Chemical Information List, and Safety Data Sheet file are located in relation to the contracted employee's work area:

Form G (continued)

Verification of Hazcom Program Training Given to Contracted Employee

I, _____, the supervisor in the area hiring this non-
(please print name)

Harford Community College employee, have exchanged the above listed information to this person.

Signature: _____

Date: _____

I, _____, the contracted employee hired to do the work
(please print name)

listed above, have been informed of the hazardous chemicals in this area and have received information describing the location of the Hazard Communication Program, the inventory of hazardous chemicals, and the Safety Data Sheets for that working area. I also have submitted to the hiring supervisor copies of the SDS of chemicals that we will bring into the work area.

Signature: _____

Date: _____

Supervisor will retain a copy and forward a copy to the Coordinator of Campus Operations; Purchasing Office will resolve any conflicts that may arise.

Form H
Hazard Communication Program Review Statement

The Hazard Communication Program has been reviewed to ensure the information contained therein is current and appropriate to safely protect the individuals who use or may come into contact with hazardous chemicals in the workplace. This review is to occur annually. The review has indicated that the following action occurred:

No revisions to Hazard Communication Program
 OSHA is requesting feedback on a Draft HCS Guidance Documents, but no revisions to date.

Revisions incorporated into Hazard Communication Program

Reviewed by:

Name Title

Signature Date

Name Title

Signature Date

Name Title

Signature Date

III. Hazard Communication Training Guides

Guide A

Orientation to the Hazard Communication Program

Training Objectives for Orientation to the Hazard Communication Program

Employees **who do not work with hazardous chemicals** will read the orientation to the Hazard Communication Program that follows and will document their level of understanding. Employees who work with hazardous chemicals will have the orientation presented to them along with their training in hazardous chemical safety. The training objectives for the orientation to the Hazard Communication Program are:

- Employees will know that Federal and State regulations and State Laws require Harford Community College to establish, implement and maintain a written Hazard Communication Program.
- Employees will understand that the purpose of the Hazard Communication Program is to establish safe workplace habits regarding chemical use and storage, and accomplishes this by allowing employees to access and understand information about the chemicals in the work place and by providing training.
- Employees will understand that participation in the training or orientation is mandatory and shall be documented and that the level of training received is job specific.
- Employees will know where to access the written Hazard Communication Program, the campus and building Chemical Information Lists, and the Safety Data Sheets.
- Employees understand that an exchange of information shall occur between outside contractors and Harford Community College if either party will be exposed to chemical hazards as a result of the contracted work.
- Employees understand that they are required and are able as a result of proper training to follow the procedures established by the Hazard Communication Program, to include informing the Coordinator of Campus Operations if they bring a hazardous chemical onto campus.
- Employees know how to be alert to the presence of a chemical spill and understand procedures that are in place to handle the emergency.

Introduction to the Hazard Communication Program

This orientation will serve as training in the Hazard Communication Program to all full and part time employees of Harford Community College. Training will be documented by completing the form entitled Verification of Orientation to the Hazard Communication Program Form, found at the end of this orientation.

This document will serve as a self-guided orientation for all employees **who do not work in areas where hazardous chemicals are used or stored**. The employee is encouraged to consult the supervisor or Coordinator of Campus Operations to have any portion of this program explained in more detail or if there are any questions.

The information in this document will be presented in a classroom setting with handouts **for all employees who work with hazardous chemicals**; it shall be supplemented with more specific training concerning handling the chemicals in the work area safely.

College Practices in Hazard Communication

It is the intent of Harford Community College to maintain a safe and healthy environment for students, visitors, employees and the surrounding community. All full and part-time faculty, staff, student employees and contractor employees who may come in contact with hazardous chemicals in the workplace receive information concerning the particular dangers that the chemicals pose. Those employees who work with hazardous chemicals will be trained in methods by which they may deal with these chemicals in a safe manner. To meet these goals, and in accordance with the applicable Federal and State of Maryland regulations and State laws, Harford Community College has established a Hazard Communication Program.

Employee Rights Under the Hazard Communication Standard

The Hazard Communication Standard (29 CFR 1910.1200), the Maryland Access to Information about Hazardous and Toxic Substances Law, and COMAR 09.12.33, grant the employees of Harford Community College certain rights. These rights include:

- The right to have the physical and health hazards of the workplace evaluated by the employer;
- The right to be informed of the hazardous chemicals to which the employee could be exposed, either during the normal course of work or in the event of a foreseeable emergency;
- The right to be informed of those hazards or hazardous chemicals when the employee is initially assigned into the work area or whenever new physical or health hazards are introduced;
- The right to be informed as to procedures which are available to protect the employee from these hazards, to include personal protective equipment such as eye protection; appropriate work practices such as housekeeping, and engineering controls such as laboratory hoods;
- The right to have a written hazard communication program.

Hazard Communication Program

The written Hazard Communication Program explains how Harford Community College will address and meet the requirements mandated by Federal and State of Maryland regulations and State laws regarding access to information about hazardous and toxic substances. It includes provisions for compiling and submitting a list of hazardous chemicals, the availability to the employee of this chemical list and the Safety Data Sheets for chemicals in the workplace, container labeling, employee training programs, and informing employees of hazards of non-routine tasks and of the hazards associated with unlabeled pipes. The following questions and answers describe the practices established in the program.

Where can employees find out which hazardous chemicals are present at Harford Community College?

A hazardous chemical inventory, called a Chemical Information List (CIL), is a list of the hazardous chemicals present at Harford Community College. It lists the chemical by its common name and chemical name, indicates the building or room where the chemical is stored or used, and provides the dates the chemical was added to the list and removed from inventory. There is a campus master list of all the hazardous chemicals here at the college; it is contained within the written Hazard Communication Program and filed with the Coordinator of Campus Operations. The list of all chemicals used at HCC is also included at MSDS Online. <https://msdsmanagement.msdsonline.com/?ID=094B0EE9-8694-4EDE-A94D-4CA4143C3760> Harford Community College is required to send an updated, alphabetized list to Maryland Department of the Environment every two years and to maintain each CIL for forty years.

Each building also maintains a list of the chemicals used and stored in that particular building; it is called the Building Chemical Information List and is filed in the building representative's office. Each time a new hazardous chemical is brought onto campus, its name and location of use must be added to the campus master list within thirty days. The employee who orders and receives the chemical, or who purchases it and brings it onto campus, is responsible for completing a form called Additions/Deletions to CIL Form, which ensures the addition of the chemical name to the CIL. A copy of this completed form is filed with the Building Chemical Information List for one calendar month so that all employees have the opportunity to be apprised of new chemicals in their work area. There is a designated employee in each building that uses or stores hazardous chemicals who is responsible for updating the Building CIL. If an employee brings a chemical onto campus, to include commonly used items such as bug spray or cleaners, an SDS must be obtained for the product. Consult the Coordinator of Campus Operations who will obtain the SDS for the building and campus files.

How can employees understand the hazards of the chemicals that they are exposed to?

Manufacturers and distributors of hazardous chemicals prepare Safety Data Sheets (SDS); the sheets provide the user with specific information about the chemical. The SDS includes the specific hazards of the chemical, the proper way to work with the chemical, storage requirements, spill and fire response, and other important information. Employees who work with chemicals on campus are required to be familiar with the hazards of the chemicals they use so as to minimize accidents and ensure a safe work environment for the entire campus community. In order to accomplish this, employees who work with hazardous chemicals will receive specific training in understanding the hazards of the chemicals they work with. They will be shown how to read and understand the information provided in the SDS so that they

will be able to minimize the level and amount of chemical hazard exposure they experience as individuals and that the campus community experiences.

Where can employees find the SDSs?

Each employee has the right to access the SDS before working with the chemical and has the right to a written copy of the SDS within five working days. The SDSs are located in each area that uses hazardous chemicals and also at the Safety Office. If an employee is not shown an SDS for a chemical in the workplace within 24 hours of request, the employee may refuse to work with the chemical until the SDS is provided.

Will all employees receive training in understanding and using the hazard information?

Appropriate training on understanding and using the hazard information found in the SDS as well as methods and observations that may be used to detect the presence or release of hazardous chemicals will be given to all employees who work with hazardous chemicals. Employees will receive training upon being hired, when a new hazard is introduced into the workplace, and when assigned to a new area that has hazardous chemicals. The training will include understanding how chemicals can be dangerous, how to safely work with and store the chemicals in their work area, how to read and interpret the labels on the chemical containers, how to handle spills and minimize chemical exposure, and how to comply with the requirements of the Hazard Communication Program. The training will be documented. Additional training shall be provided by the supervisor or Coordinator of Campus Operations if a new hazard is introduced to the workplace, if new methods or protocols are developed, if unsafe work practices are being observed, or in the event of an incident.

How do we communicate information on chemical hazards with contractors?

Non-college employees who have a contract to work at Harford Community College are required to exchange information with the college if they are working in an area that uses or stores hazardous chemicals or if they will be bringing hazardous chemicals to the Harford Community College work site. Contracted employees are permitted to view the Chemical Information List and the SDS for the chemicals in the work area, and shall be informed of the availability of viewing the Hazard Communication Program. The hiring supervisor is required to inform the Purchasing Office if the exchange of information will be needed for the particular circumstance. If the employee requisitioning the contract is unsure if the information exchange is needed, the Coordinator of Campus Operations should be consulted. The form entitled Contracted Employee Workplace Training Verification Form provides for the necessary exchange of information.

What if employees are assigned a non-routine task that requires them to work with a new hazardous chemical?

Employees who perform hazardous, non-routine tasks will be given information about the hazardous chemicals to which they may be exposed during the non-routine task. The supervisor shall provide the training and information and shall document the additional training by using the form entitled Verification of Non-Routine Task Training Form. The information shall include:

- The protective/safety measures the employee can take, to include personal protective equipment;
- The measures Harford Community College has taken to lessen the hazards, to include appropriate ventilation, the use of a 'buddy system', and the availability of training for special protective equipment;
- The emergency procedures that have been developed for the particular task.

What special training will employees who work in areas that do not use or store hazardous chemicals receive?

All employees shall be informed, through this document, of the existence of Harford Community College's Hazard Communication Program and their rights under the program. Employees who will help implement the program shall receive job specific training; Human Resources, Purchasing, and supervisors are examples of employees who will assist in the program implementation and maintenance. Additionally, all employees shall understand the procedures established involving chemical spills.

- **Detecting a chemical spill**

A sign of a chemical spill or release can be the presence of noxious or unusual odors or by the presence of physical symptoms by an employee. Any unusual burning sensation in the eyes or nose and mouth, or feelings of dizziness, headaches or disorientation could be signs of a chemical release. Other signs can be several employees in an area experiencing similar physical symptoms or the sudden onset of physical symptoms. Additionally, an employee could visually encounter a spill of a liquid or solid in an area where chemicals are used or stored.

- **Handling a chemical spill**

If an employee finds a spill, the employee must ensure that the area remains traffic free so that other employees, students, or visitors are not injured. Maintain a safe distance from a chemical spill while ensuring that the area is secure. Obtain help in securing the area and in contacting the supervisor for that area. If the supervisor is unavailable, the Coordinator of Campus Operations and/or Security should be contacted immediately. The Coordinator of Campus Operations will be required to report any spills to Harford County Emergency Response Team within 24 hours, or will contact the Team immediately if help is required in containing the spill.

When in doubt as to the safety of employees and students due to a chemical spill, activate the fire alarm to evacuate the building.

If a chemical spill is suspected but not located, contact the supervisor for the area, the Coordinator of Campus Operations, or Security; move to a well-ventilated area. In the event of an actual or suspected chemical exposure, seek medical attention if physical symptoms warrant it

Employee Responsibilities Under the Hazard Communication Program

The employees of Harford Community College have the responsibility of following all of the guidelines of the Hazard Communication Program; handling the hazardous chemicals safely as outlined on the Materials Safety Data Sheets; using the appropriate personal protective equipment; and observing safe work practices. Each employee will be required to receive and document training on the College's Hazard Communication Program.

Location of Forms and Access to the Written Hazard Communication Program

All forms required by the Hazard Communication Program are available on the G drive and from the Coordinator of Campus Operations. The written Hazard Communication Program is available on the G drive and is on file at the following locations: the Safety Office (Barn), Human Resource Office (Joppa Hall Room 1), and each building representative's office.

Verification of Orientation in the Hazard Communication Program

Employee Name: _____

Department: _____

I certify that I have received written/verbal training (please circle the appropriate training method) which provided me with a basic orientation in Harford Community College's Hazard Communication Program and that I am familiar with the following components of the program:

Federal and state regulations and laws require Harford Community College to establish, implement, and maintain a written Hazard Communication Program for the purpose of establishing safe workplace habits regarding chemical use and storage.

Employees are allowed access to the written Hazard Communication Program, the Chemical Information List, and the Safety Data Sheets; I have been informed of the location of this information.

All employees shall receive a level of training appropriate to their exposure and use of hazardous chemicals.

All employees have an obligation to participate in Hazard Communication Program training and to document this training.

An exchange of information will occur between Harford Community College and outside contractors if either party will be exposed to chemical hazards as a result of the contracted work.

All employees are required to follow the procedures established by the Hazard Communication Program, to include informing the Coordinator of Campus Operations if they bring hazardous chemicals onto the campus.

Procedures are in place for the handling of chemical spills and suspected chemical releases to the environment and each employee is informed of these procedures.

Employee signature: _____

Trainer/supervisor signature: _____

Date: _____

All employees must have the supervisor's signature. The supervisor will provide the employee with a copy of this form and send copies to Human Resource Office for inclusion with the Personnel File and to the Coordinator of Campus Operations.

Guide B

Employee Training in Hazardous Chemical Safety

Training Objectives for Employee Training in Hazardous Chemical Safety

Employees who work with hazardous chemicals will receive classroom training in understanding the Hazard Communication Program and how to work safely with the chemicals in the work environment. Employees demonstrating a lack of understanding at any time after being trained will be retrained. The training objectives are as follows:

- Employees will understand the two main categories of chemical hazard: health and physical.
- Employees will be familiar with the following types of chemical health hazards: irritants, corrosives, sensitizers, target organ chemicals, teratogens, mutagens, and carcinogens.
- Employees will know the three routes of exposure to a chemical: inhalation, skin absorption, and ingestion, and will be trained in methods to avoid these exposure routes.
- Employees will understand how to use the Permissible Exposure Limits and Threshold Limit Values information on a Safety Data Sheet.
- Employees will know how to read a Safety Data Sheet, the type of information that can be found in one, and will understand their right to access the sheet prior to working with the chemical.
- Employees will understand the difference between explosive hazard, the different types of fire hazards (flammable, combustible, pyrophoric, and oxidizers), and reactive hazards.
- Employees will know how to use the information about chemical hazards found on a label and will understand the requirement to label secondary containers with the required information.
- Employees will be familiar with the three main methods of exposure control: appropriate work habits and practices, personal protective equipment, and engineering controls.
- Employees will know how to detect a chemical release/spill and be familiar with the procedures that have been developed to control and report the spill.
- Employees will have an understanding of the basic type of first aid procedures that should be applied in the event of a chemical exposure.
- Employees will understand that regulated chemicals cannot go into the trash or down the drain.
- Employees will understand that chemicals are stored by compatibility and will know the location and types of chemical storage areas in their building/department.

Introduction to Employee Training in Hazardous Chemical Safety

This training guide is an outline of materials that will be covered in an in-class session to all employees at Harford Community College who work in areas that use or store

hazardous chemicals. The training will be department-specific. The Coordinator of Campus Operations, his designee, or the supervisor will present training. This training guide will serve as a handout that employees shall keep as a summary of training received; it cannot serve as a substitute for a training session. Additional handouts will be provided during training. Supervisors will provide additional and ongoing training in the area of chemical safety, demonstrating appropriate techniques as needed. Additional training shall also occur when a new hazard is introduced into the work environment, or when new methods and protocols are developed. Each new employee to an area that uses or stores hazardous chemicals will receive Hazard Communication Training as part of orientation. All training will be documented. Retraining will occur annually or sooner if the supervisor or Coordinator of Campus Operations determines that it is necessary due to observable lapses in safe work practices or incidents, in order to uphold a safe and healthy work environment.

How a Chemical Can be Dangerous

There are two main categories of chemical hazards, health and physical. The SDS for the chemical provides information on both of these categories. This background information is intended to assist the employee in understanding the information provided in the SDS so that the chemical may be utilized properly, resulting in safe work practices.

Hazards

Health

All materials can be toxic to living beings depending on the concentration of the material taken into the body and the actual toxic mechanism of the chemical. The health hazard information on a Safety Data Sheet comes from studying the toxic effects the chemicals have on animals and humans. The information in this section is to assist employees in understanding how the chemical can be hazardous. The SDS for each chemical the employee uses should be reviewed for the specific health hazards posed.

- **Categories of Health Hazards**

There are several categories of health hazards:

- Irritants are chemicals that can irritate or inflame human tissue on contact. Some irritants cause blisters, itching or rash on the skin; others can irritate the lungs and respiratory tract, and others can irritate the eyes, causing them to sting and tear.
- Corrosives: A chemical is considered corrosive if it causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. Acids are considered to be corrosive and will burn the skin on contact. Ingestion of a corrosive can severely damage the mouth, esophagus and stomach.
- Sensitizers are chemicals that cause an allergic-like response in a substantial number of people who are repeatedly exposed to the chemical. Upon first exposure to the sensitizer, mild symptoms such as a rash may occur; repeated exposure to the chemical may cause more severe symptoms.

- Target-organ chemicals damage specific organs in the body. These chemicals may enter the body at one place and travel to the target organ somewhere else. Some examples of target-organs and the chemicals that harm them are:
 - Lungs: asbestos fibers, silica.
 - Liver: tetrachloroethane, vinyl chloride, carbon tetrachloride.
 - Central nervous system: tetrachloroethane, mercury.
 - Heart: chloroform.
 - Kidneys: mercury, halogenated hydrocarbons.
- Reproductive hazards are chemicals that cause sterility, fetal death, and/or birth defects. Mutagens are reproductive hazards that can make a male or female sterile, cause birth defects, or miscarriage by changing the genes in the egg or sperm. Teratogens are reproductive hazards that damage the fetus after conception, causing death or birth defects.
- Carcinogens are chemicals that cause or have the potential to cause cancer.

- **Routes of Exposure**

There are several ways a chemical can enter the body. These routes of exposure include:

- Inhalation: this is an important route for workplace exposures. Dusts, vapors, and chemical fumes can be inhaled. Breathing contaminated air is one of the most dangerous and common routes of exposure to chemical hazards.
- Skin absorption or contact: chemicals can enter the body through the skin or can directly impact the skin itself. Chemicals vary in their ability to be absorbed into the body through the skin. Some chemicals, such as organic solvents and pesticides, have significant absorption potential.
- Ingestion: this is a less common means of a workplace route of exposure. It can be an important consideration, however, if highly toxic materials such as lead are present in the workplace. **Eating and drinking in an area where chemicals are used or stored is not permitted at Harford Community College.**

- **Understanding Permissible Exposure Limits and Threshold Limit Values**

Exposure limits for health hazards are intended to protect employees who work with hazardous chemicals from unsafe exposure levels. The SDS includes information on the exposure limits for the particular chemical. The exposure limit states the quantity of a chemical that can safely be allowed in a given volume of air, expressed as concentration. There are two common ways of describing concentration. Parts per million, or ppm, refers to how many parts of the chemical may be present in the air for every million parts of the air-chemical mixture, by volume. Extremely hazardous chemicals may have this concentration expressed as parts per billion, or ppb. The second way of expressing concentration commonly used on an SDS is milligrams per cubic meter, or mg/m³. A cubic meter is the volume of a cube measuring on meter on each side. If an exposure limit is expressed as 4 mg/m³, it means that 2 milligrams

of the chemical may be present in a cubic meter of air. To provide a measure of comparison, know that a drop of water is about 50 milligrams.

OSHA sets permissible exposure levels, or PEL's. The National Institute for Occupational Safety and Health (NIOSH) also recommends exposure limits. Threshold Limit Values, or TLV's, are exposure limits recommended by the American Conference of Governmental Industrial Hygiene (ACGIH). The SDS will state which of the limits is quoted. All exposure limits are developed to define conditions under which most people can work eight hours a day, forty hours a week, over a working lifetime without harmful effects. Note that the chemical with a higher exposure limit is less hazardous than a chemical with a lower exposure limit. Any work areas at Harford Community College that have a heavy usage of chemicals with low exposure limits may be tested upon recommendation of the supervisor or Coordinator of Campus Operations.

Physical Characteristics

The physical characteristics of a chemical and the manner in which the chemical will be encountered in the workplace are other ways a chemical can be dangerous. These factors include:

- Explosive hazards are chemicals sensitive to high temperature, pressure, and/or sudden shock, such as being bumped sharply or dropped. One or more of these conditions can cause the chemical to undergo rapid changes that produce an explosion, which is the sudden release of heat, gas and energy.

- Fire Hazards
 - Flammable chemicals: Flammable limits describe the range of concentrations of a flammable gas or vapor in air that will produce a flash of fire in the presence of an ignition source. A “flammable liquid” is a solution with a flash point below 100 degrees F (37.8 degrees C). A flash point is the temperature at which a liquid will give off enough flammable vapors to ignite. A direct source of ignition is required, such as a lit match, cigarette, or spark. The lower the flashpoint, the more dangerous the product. It is important to know that the vapors themselves can catch on fire and travel back to the source container. **Smoking is strictly forbidden in areas where chemicals are used or stored.**
 - Combustible chemicals are also ignited by a direct source but only at temperatures of 100 degrees F or higher. Thus, flammable chemicals can pose a serious fire hazard at normal room temperature, whereas combustible chemicals do not.
 - Pyrophorics ignite spontaneously in air at or below 130 degrees F (54 degrees C). No direct source of ignition is needed. To prevent this spontaneous ignition, special precautions must be taken when storing and handling them. Generally, preventing contact with air is a recommended precaution, such as keeping sodium submerged in kerosene.

- Oxidizers are also fire hazards. These chemicals cause or support fire in other materials. Some oxidizers cause fire by providing oxygen, which keeps a fire burning; others cause fires by reacting violently with certain materials. For example, strong solutions of hydrogen peroxide ignite on contact with a wide variety of many common industrial chemicals.
- Reactive chemicals: This describes the tendency of a substance to undergo chemical reaction with the release of energy under relatively common conditions of pressure and temperature. Undesirable effects such as pressure build-up (leading to explosion), temperature increase, formation of noxious, toxic or corrosive byproducts can occur because of the reactivity of a chemical.

Safety Data Sheet Information

Each employee will be shown the location of the SDSs for the chemicals in the work area. Harford Community College is required to allow each employee access to the SDS for the chemicals being used within 24 hours of request. The employee may refuse to work with the chemical until the SDS is provided. A copy of the SDS or means to make a copy will be provided within 5 working days. There are forms available on the G drive and from the Coordinator of Campus Operations for requesting a copy of an SDS. The SDS (an example will be provided during training) contains the following information about the chemicals in the work environment:

- Identity of the chemical, to include alternate names
- The physical and chemical characteristics
- The physical hazards
- The health hazards, to include whether it is a carcinogen
- The primary routes of entry
- The Permissible Exposure Limits and recommended Threshold Limit Values
- The precautions necessary for safe use/storage
- Control measures
- Emergency and first-aid procedures
- The date of preparation
- Name, address, and phone number of preparer (chemical manufacturer or importer.)

Labeling Requirements

All containers of hazardous chemicals purchased will have a label indicating, in English, the name of the chemical and the particular hazards of the chemical. The label must remain on the container; if it is removed, it will be replaced with one that has the correct information. If an employee transfers the chemical into a secondary container that is not for immediate use, the secondary container must also be labeled. The common and chemical name shall be affixed to the secondary container along with a label indicating the hazard of the chemical. A copy of the GHS labeling system used in the new Safety Data Sheets (SDS) is included with this document. There are now 3 categories of hazards to include health, physical and environmental.

Exposure Control

There are many ways to minimize the exposure employees have to hazardous chemicals. One of the most proactive ways is for Harford Community College to have a strong hazardous chemical minimization program. Having access to the SDS and being able to assess the hazard of the chemical being used enables employees to be knowledgeable consumers. When possible, non-hazardous or less hazardous chemicals should be substituted. Hazardous chemicals should only be purchased in amounts likely to be used in a reasonable amount of time to reduce the quantity of hazardous chemicals being stored at Harford Community College. Work practices should be developed that require the use of less hazardous chemicals; each employee working with hazardous chemicals is encouraged to share ideas with the supervisor in the area of hazardous chemical minimization.

Another important way to reduce chemical exposure is to limit the number of employees who handle hazardous chemicals. Employees should recommend and implement workplace practices that eliminate needless handling of the chemicals. One method, employed by the science department, is to have all chemicals that are received by Distribution Services delivered to the science building where laboratory employees unpack and verify the contents.

For those times when hazardous chemicals must be used, appropriate measures are taken to protect the employee, work environment, and natural environment from the hazards associated with the chemicals.

- **Personal Protective Equipment**

The Safety Data Sheet and the label on the chemical container will indicate to the employee the level of protection that is recommended when using the chemical. The college practice is to require the employee to utilize the protection recommended while using the chemical.

The protective equipment can include the following for the chemicals used at Harford Community College: Hand protection, to include a variety of gloves. Glove materials are chemical specific. Glove selection shall be appropriate for the chemical being used. The supervisor with the help of the Coordinator of Campus Operations will recommend the appropriate glove. Eye and face protection, to include chemical goggles and face shields. Face shields do not substitute for chemical goggles as they do not provide an adequate level of eye protection. They can only be used over goggles. Eye glasses are not adequate protection when using hazardous chemicals and do not substitute for goggles. Respirators are chemical specific. Employees will receive detailed, documented training from the supervisor or Coordinator of Campus Operations prior to using a respirator during a job. The use of a respirator in most departments on campus is considered to be for non-routine hazardous tasks and will require documented, additional, as-needed training. There are OSHA regulations concerning the use of respirators, to include medical evaluation of the employee, fit-testing, and cleaning procedures that must be followed.

Body protection, to include lab aprons, coats and totally encapsulating chemical protective suits, to provide a barrier for the body from select hazards. Use of a chemical protective suit would be for non-routine hazardous tasks and will require specific, documented training by the supervisor or Coordinator of Campus Operations.

- **Engineering controls**

Many of the chemicals used at Harford Community College have hazardous fumes and employees will be required to use them with adequate ventilation. Some areas are equipped with laboratory hoods or exhaust fans for this reason. The hoods should be used whenever recommended in the SDS.

If a chemical with hazardous fumes is being used in an area without hoods or exhaust fans, the employee must ensure that the windows/doors are open and are providing appropriate ventilation. The SDS will indicate the symptoms or health effects to be aware of; they may include shortness of breath, sore throat, coughing, mucous membrane irritation, dizziness, and headache.

- **Appropriate Work Practices/Habits**

Good work habits that respect the hazards of the chemicals being used in the work environment will greatly minimize exposure to the hazards. The following are things to be considered:

- Understand the hazards of the chemical being used. Read the SDS and follow the recommendations regarding use of personal protective gear and conditions to avoid.
- Handle the chemical carefully. Do not carry more than what can be carried safely; leave the lid on the container when not dispensing from it; only take as much from the container as can be used in a reasonable amount of time; return the chemical to its proper storage location when done.
- Use good housekeeping procedures. Clean up the area carefully when done. Do not leave any unlabeled secondary containers of the chemical in the work area. Properly dispose of any materials that have been used with the hazardous chemical. Remove contaminated clothing.
- **Do not smoke, eat, or drink while using hazardous chemicals or in areas where hazardous chemicals are stored or used.** This could lead to ingestion of the chemical.
- Know where the eyewash station is in each work area. Regularly inspect the eyewash station for proper functioning.
- Use good judgment. Be mindful of hazardous situations and report any concerns to the supervisor or Coordinator of Campus Operations. Take corrective measures when appropriate.
- Attend and learn from training provided by the supervisor and Coordinator of Campus Operations. Both routine and non-routine training is provided to enable

the employee to understand the chemicals in the work environment and work with them safely.

Detecting and Handling a Chemical Spill

Some of the chemicals used at Harford Community College have distinct, pungent odors and release to the work environment will be unmistakable. Some chemicals are difficult to detect by odor; thus, levels can be above OSHA standards prior to detection of the chemical. A feeling of burning in the eyes or throat, or headaches and dizziness can be another sign of a chemical release in your work environment. The presence of a liquid or solid on the floor, counter, or shelf on which the chemical is stored indicates the potential of a chemical release or spill.

- **Spill Control Procedures**

A sign of a chemical spill or release can be the presence of noxious or unusual odors or by the presence of physical symptoms by an employee. Any unusual burning sensation in the eyes or nose and mouth, or feelings of dizziness, headaches or disorientation could be signs of a chemical release. Other signs of chemical exposure are when several employees are experiencing the symptoms or the symptoms come on suddenly while at work

An employee could encounter a spill of a liquid or solid in an area where chemicals are used or stored. If an employee who works in an area that uses and stores hazardous chemicals finds a spill, precautions should be taken to ensure that the area remains traffic free. If possible, and only if this can be done safely, attempt to ascertain the source of the spill. The supervisor for that area should be contacted and notified of the spill. If the supervisor is unavailable, the Coordinator of Campus Operations and/or Security should be contacted.

When in doubt as to the safety of employees and students due to a chemical spill, activate the fire alarm to evacuate the building.

If the identity of the chemical is determined, the SDS can be consulted to determine appropriate spill control methods. If a chemical spill is suspected but not located, contact the area supervisor, the Coordinator of Campus Operations, and/ or security; move to a well-ventilated area. The Coordinator of Campus Operations will be required to report any spills to Harford County Emergency Response Team within 24 hours, or will contact the Emergency Response Team immediately if help is needed in containing the spill.

In the event of an actual or suspected exposure to a chemical spill occurs, seek medical attention if physical symptoms warrant it.

- **Additional Guidelines**

- Never attempt to stop the leak or clean up the spill without wearing appropriate personal protection gear. If you are not sure what the chemical is, wear appropriate personal protective equipment while working with the spill. If the vapors from the spill are causing burning in the throat or eyes, vacate the area and follow the emergency response procedures established for spill control.
- Never leave a spill area unprotected from the public or from other employees. Ensure that the area remains traffic-free until help arrives. If necessary, evacuate the room and remain in a well-ventilated area until Security or other professional help arrives.
- If it is a small spill that may be safely cleaned up, use the spill control kit located in each chemical storage/use area. Most spills can be absorbed with the provided absorbent or spill control pillow. The absorbent must be double bagged and labeled for proper disposal.
- Use good judgment in spill control/clean-up. Do not expose yourself or other employees or students to unnecessary danger.
- If the spilled chemical is known to be flammable, extinguish obvious sources of ignition. Evacuate the room and remain in a well-ventilated area until professional help arrives.
- Seek medical attention if physical symptoms warrant it.

First Aid Procedures

The information in this section is not a substitute for information found in the SDS.

- Eye contact: if a chemical or mist is splashed into the eyes, the eyes should be flushed with potable water for at least 15 minutes or until irritation subsides. Each area on campus that uses hazardous chemicals has an eye wash station. The employee should know the location of the eye wash station prior to using the hazardous chemical. Seek medical attention if the irritation continues or if any health concern exists.
- Skin contact: Remove any contaminated clothing and flush the area with water; wash with soap and water. Some areas are equipped with showers; be aware of the location of the shower prior to using the chemical. Remember that some chemicals, such as acids, can burn the skin or cause irritation; other chemicals can be absorbed into the body through skin contact. Seek medical attention if irritation continues or concerns exist.
- Inhalation: Move to a well ventilated area and assess medical condition. Seek medical attention as needed.

Chemical Disposal

There are strict regulations regarding what can and cannot go down the drain and in the solid waste containers. Harford Community College is committed to complying with all pertinent laws and regulations regarding chemical disposal. Do not put any chemical in a drain or in a solid waste container without permission from the supervisor. It will be the responsibility of the supervisor, working with the Coordinator of Campus Operations, to determine the correct disposal procedure for each waste generated on campus.

Chemical Storage

Chemicals are stored by compatibility; certain chemicals can react together to produce hazards such as explosion or the release of toxic fumes. The SDS indicates storage requirements of the chemical. Each area that uses hazardous chemicals will have clearly labeled distinct storage areas. The storage areas are to be kept orderly and should not be overly crowded so as to avoid chemical accidents. Employees should receive an orientation from the supervisor regarding the location and nature of the storage rooms in their workplace. The employee is responsible for returning the chemical back to the correct storage area. Storage areas should be inspected regularly for leaking containers, containers that have lost labels, outdated or obsolete chemicals, and rusting or bulging containers. All chemicals no longer in use are to be removed from campus by a certified hazardous waste company. Storage areas are not to be used for long term storage of out of use chemicals. Complete the correct forms for updating the Chemical Information List when a chemical is removed from campus.

Verification of Employee Training in Hazardous Chemical Safety

This checklist outlines the sections that must be covered during hazard communication training.

Employee Name (Print): _____

Department: _____

I certify that I have received written/verbal training (please circle the appropriate training method) which provided me with training in Hazardous Chemical Safety in compliance with Harford Community College's Hazard Communication Program and that I am familiar with the following components of the program:

Overview of requirements contained in the Hazard Communication Standard

Review of chemicals present in the workplace

Location /availability of Harford Community College Hazard Communication Program

Location of departmental and college-wide Chemical Inventory List

Location of departmental and college-wide SDS files

Discussion of where to find physical data and health effects of chemicals

Discussion of ways to determine the presence or release of hazardous chemicals into the work area

Discussion of safe work practices and emergency procedures

Discussion of how to determine appropriate personal protective equipment

Discussion of how to read labels and SDS

Review of steps taken by the department to reduce or prevent exposure to hazardous chemicals

Discussion of supervisor's responsibilities with respect to non-routine tasks and introduction of new chemicals into the workplace

Employee/Student Signature: _____

Trainer/Supervisor Signature: _____

Date: _____

IV. Hazard Communication Appendices

Appendix A
Chemical Information List

Please refer to the following document on the G drive entitled:
G:\safety&health\cheminfolist.xls

Appendix B

Applicable State and Federal Regulations

The pertinent regulations may be viewed on the Internet:

OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations
1910.1200

- Go to www.osha.gov
- Select "Regulation" at left of screen
- Select OSHA Regulations (Standards- 29 CFR)
- Select "General Industry" at top of screen
- Navigate to 29 CFR 1910.1200

COMAR (Code of Maryland Regulations) 09.12.33

- Go to www.dsd.state.md.us
- Select "ok" for viewing a secure connection
- Select "COMAR On line" at right of screen
- Select "Search Option 3" at bottom of screen
- Navigate to COMAR 09.12.23

The Access to Information about Hazardous and Toxic Substances can be found in the Research Library. It is located in the Labor and Employment Article of the Annotated Code of Maryland, Title 5, Occupational Safety and Health, Subtitle 4.


Appendix C

Labeling Requirements

The NFPA triangle is no longer being used and there are several new label elements to take its place, these include:

- Symbols called “Pictograms”
- Signal Words
- Hazard Statements
- Precautionary Statements
- Product Identification
- Supplier/Manufacturer Identification

A sample label is below:

SAMPLE LABEL	
PRODUCT IDENTIFIER	HAZARD PICTOGRAMS
CODE _____	
Product Name _____	SIGNAL WORD
SUPPLIER IDENTIFICATION	Danger
Company Name _____	HAZARD STATEMENT
Street Address _____	Highly flammable liquid and vapor. May cause liver and kidney damage.
City _____ State _____	SUPPLEMENTAL INFORMATION
Postal Code _____ Country _____	Directions for use
Emergency Phone Number _____	_____
PRECAUTIONARY STATEMENTS	_____
Keep container tightly closed. Store in cool, well ventilated place that is locked.	Fill weight: _____ Lot Number _____
Keep away from heat/sparks/open flame. No smoking.	Gross weight: _____ Fill Date: _____
Only use non-sparking tools.	Expiration Date: _____
Use explosion-proof electrical equipment.	
Take precautionary measure against static discharge.	
Ground and bond container and receiving equipment.	
Do not breathe vapors.	
Wear Protective gloves.	
Do not eat, drink or smoke when using this product.	
Wash hands thoroughly after handling.	
Dispose of in accordance with local, regional, national, international regulations as specified.	
In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO ₂) fire extinguisher to extinguish.	
First Aid	
If exposed call Poison Center.	
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.	

Pictograms

There are nine standardized pictograms from GHS that OSHA has included in their revised Hazard Communication Standard. These pictograms are required on hazard communication labeling.

There are 3 pictograms specific to health hazards: exclamation, health hazard (silhouette of a person with starburst on the chest) and skull and crossbones.



There is 1 pictogram that can represent both physical and/or health hazard of corrosive.



There are 4 pictograms specific to physical hazards: exploding bomb, flame, flame over circle (oxidizer) and gas cylinder.



There is 1 for environment: (Non-Mandatory)



Appendix D

Location of Hazard Communication Information

Building and Department	Hazard Communication Program	Safety Data Sheets	Building Chemical Information List
Aberdeen Hall, Building Representative Office, A130	X		X
Aberdeen Hall, Lab Manager Office, A132		X	
Plant Services Building, Safety and Health Specialist Office,	X	X	X
Plant Services, Shop area		X	
Bel Air Hall, Bldg. Rep. Office,	X	X	X
Chesapeake Center, Mail Room	X	X	X
Edgewood Hall, Mail Room	X	X	X
Fallston Hall, Mail Room Lower level	X	X	X
Havre de Grace Hall, Adjunct Office 229	X	X	X
Heat Center, Building Rep. Office	X	X	X
Joppa Hall, Reception Area.	X	X	X
Joppa Hall, Art Department		X	
Joppa Hall, Photography Lab		X	
Joppa Hall, Ceramics		X	
Maryland Hall, Front Vestibule	X	X	
Research Library, Campus Safety Office and Circulation Desk	X	X	X
Susquehanna Center, Front Entrance	X	X	X
Harford Student Center, Front Entrance	X	X	X