

WEST VIRGINIA UNIVERSITY
Hazard Communication Program

29 CFR 1910.1200

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1. Purpose

This document establishes the procedures, objectives, and administrative requirements for West Virginia University's Hazard Communication Program to meet applicable federal regulations in the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR 1910.1200 and the Environmental Protection Agency (EPA) Community Right-To-Know Standard (SARA) 40 CFR Part 370.

This program has been established to: Ensure hazardous chemicals are properly identified in the workplace. Ensure the hazards of these chemicals are communicated. Ensure that employees understand and comply with safety standards related to chemicals. Assign responsibilities to personnel which are necessary for successful implementation of the Hazard Communication program.

2. Scope

The Hazard Communication Program applies to employees who work with or supervise operations involving work with hazardous chemicals at the West Virginia University campuses (including but not limited to the main campus, West Virginia University Institute of Technology, West Virginia University Potomac State College, regional farms, and related facilities and operations or work locations).

Hazardous chemicals are chemicals which pose a physical and/or health hazard during routine or non-routine operations or during emergency conditions at any phase of the chemicals' "life-cycle" including receipt, issue, use, storage, or disposal.

3. Definitions

The following terms used in this Hazard Communication Program are defined as follows:

Chemical – Any element, chemical compound or mixture of elements and/or components.

Employee – A worker who may be exposed to hazardous chemicals during normal operating conditions or during foreseeable emergencies. Workers such as office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered by the Hazard Communication Program.

Exposure or Exposed – Means that an employee in the course of employment comes in

contact (inhalation, ingestion, skin contact or absorption) with a chemical that is a physical or health hazard; and includes potential (including accidental) exposure.

Foreseeable Emergency – Means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous Chemical – Any chemical which is a physical or health hazard.

Health Hazard – 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. Hazardous chemicals include 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.

Immediate Use – Means that the 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.

Mixture – Any combination of two or more chemicals other than components resulting from a chemical reaction.

Non-routine Tasks – Tasks involving the use of a hazardous materials for a purpose other than that intended (e.g., using gasoline to degrease a stove), or tasks that are not conducted routinely and that involve the use of a hazardous material (e.g., cleaning a boiler's combustion chamber).

Physical Hazard – A chemical or mixture that is combustible, explosive, pyrophoric, reactive or is a compressed gas, oxidizer or organic peroxide.

Project Manager – The West Virginia University employee responsible for directing and overseeing the activities of an outside contractor.

SDSs – Safety Data Sheets. Means written or printed material concerning a hazardous chemical.

Secondary Container – A vessel or container that contains chemicals from the original chemical container. A secondary container must be labeled the same as the original chemical container.

Use – To package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work Area – A defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace – An establishment at one geographical location containing one or more work areas.

4. Roles/Responsibilities

4.1 Administration

Deans, Directors, and Department Chairs are responsible for implementing and maintaining the Hazard Communication Program in their work areas. In most cases, this involves designating one or more individuals to coordinate the Hazard Communication Program and empowering the designee(s) to do what is necessary to maintain compliance.

4.2 Environmental Health and Safety Department

The Environmental Health and Safety Department is responsible for the development, implementation and oversight of the Hazard Communication Program.

The Environmental Health and Safety Department will:

- Develop and provide overall administrative support for the Hazard Communication Program, including interpretation of the regulation.
- Provide training for managers, supervisors and/or designated individuals concerning their responsibilities and the requirements of the program.
- Provide guidance for the preparation of procedures, survey reports, chemical inventories, and training programs required by the Hazard Communication Program.
- Conduct periodic audits of work area compliance activities.
- Provide a copy of the written Hazard Communication Program to employees, upon request.
- Conduct environmental monitoring upon request to determine employee exposures.
- Maintain a course description and records associated with the Hazard Communication Program, including but not limited to:
 - 1) Training records (only for training provided by WVU EHS)
 - 2) Employee exposure information
 - 3) Chemical inventories
- Periodically evaluate the overall effectiveness of the program.

4.3 Principle Investigators, Researchers, Department Managers/Supervisors will:

- Effectively communicate to their employees the requirements of the University's Hazard Communication Program for their work area.
- Ensure that employees are provided effective information and training on hazardous chemicals in their work area at the time of initial assignment, whenever a new physical or health hazard the employees have not previously been trained on is

introduced into their work area, and that refresher training is conducted.

- This training shall be documented.
- Ensure an inventory is completed for all chemicals used in the work area, using the form in Appendix A, Chemical Inventory Form. The Chemical Inventory Form must be updated and submitted to the Environmental Health & Safety Department annually on or before July 15. For nine month appointments, chemical inventory is due in May prior to leaving for the summer.
- Review and understand SDSs for chemicals used by employees under their supervision and inform employees of new or updated SDSs as they are received.
- Ensure SDS files are maintained in the work area and are readily accessible to employees.
- Ensure that employee requests for SDSs and other materials are promptly handled.
- Develop methods to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
- Ensure that all containers of hazardous chemicals are labeled with the chemical and/or trade names, and the chemical abstract numbers (CAS). Needed code letters or numbers and/or chemical formulas are **not** acceptable forms of labeling.
- Ensure that safe and healthful work conditions are maintained.
- Ensure employees' exposure to hazardous chemicals, as defined by this program, do not exceed the permissible exposure limit (PEL) specified in 29 CFR 1910.1000 subpart Z or the Threshold Limit Value (TLV) as published by the American Conference of Governmental Industrial Hygienists, whichever is lower.
- Seek guidance from the Environmental Health & Safety Department concerning compliance with or interpretation of the Hazard Communication Standard and refer employee questions to the Environmental Health & Safety Department.

4.4 WVU Employees Will:

- Follow the work practices described in this program including maintaining proper labeling of chemical containers, reviewing Safety Data Sheets (SDS), follow instructions and recommendations regarding proper use of chemicals, and using appropriate personal protective equipment.
- Attend all training required by this program.
- Immediately report any unsafe conditions or concerns related to chemicals to their supervisor.
- Contact WVU Environmental Health and Safety with any concerns.

4.5 Contractors and Project Managers

- Contract employees must be informed about the hazardous chemicals to which they may be exposed to while working at West Virginia University. Project managers and/ WVU hired contractors must:
 - inform contractors about the chemicals in the work area
 - Location of the SDSs
 - Necessary safety precautions to be taken when working with or near chemicals
 - Answer safety-related questions.
- Project managers are responsible for consulting with EHS to determine if precautionary measures are needed to protect West Virginia University faculty, staff and students from hazardous materials used by the contractor.

Additionally, contractors must have a hazard communication program that meets the requirements established in 29 CFR 1910.1200(e)(2), which states for multi-employer workplaces, employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

1910.1200(e)(2)(i)

The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;

1910.1200(e)(2)(ii)

The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

1910.1200(e)(2)(iii)

The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

5. Training

Each employee with potential exposure to hazardous chemicals shall be provided information and training regarding the hazards of the chemicals in their work area.

General Hazard Communication training will be conducted by WVU EHS/SHE. Training on specific chemicals in workplaces will be conducted by Principle Investigators, Researchers, or Department Managers/Supervisors.

Training content shall include:

- a) Contents of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and its appendices;
- b) Location and availability of the West Virginia University Hazard Communication Program;
- c) Methods and observations used to detect the presence or release of a hazardous chemical;
- d) Hazardous chemical properties including physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area;
- e) Measures employees can take to protect themselves from chemical hazards including personal protective equipment, work practices and emergency procedures;
- f) Description of WVU acceptable labeling systems;
- g) Description of the Globally Harmonized System (GHS) pictograms (see Appendix B);
- h) Hazardous chemical spill and leak procedures;
- i) Explanation of the SDS;
- j) Signs and symptoms associated with exposures to hazardous chemicals used in the workplace;
- k) Methods utilized to recognize potential hazards of non-routine tasks, including, but not limited to training, additional personal protective equipment, and signage; and
- l) Hazards associated with chemicals contained in unlabeled pipes, including, but not limited to training, SDSs, additional personal protective equipment, laboratory chemical testing and analysis, and contacting the Emergency Coordinator.

The Hazard Communication Program electronic training module is part of a 3-module course on West Virginia University's eCampus website. The 3-module course provides training for the Hazard Communication Program, Laboratory Safety and Hazardous Waste. The training module is located at the following website:

<https://www.ehs.wvu.edu/training/haz-com-lab-safety-haz-waste-training>.

6. Procedure

6.1 Purchase/Acquiring Chemicals

Chemical user or purchaser shall determine if the use of hazardous substances is necessary, and assess whether a less hazardous or non-hazardous substitute exists. Each laboratory process must be evaluated to determine if it is feasible to reduce or eliminate hazards. A current SDS is must be acquired.

It is also the responsibility of the chemical user or purchaser to ensure all use, storage, handling, and disposal of hazardous substances is done appropriately and according to all state and federal regulations. Having fewer hazardous substances on hand lowers both risk and administrative costs. Cost savings achieved through bulk purchases are often negated by the costs associated with storing hazardous substances properly and disposal of outdated products.

6.2 Safety Data Sheets and Chemical Inventory

Manufacturers and/or distributors of chemical products must prepare Safety Data Sheets (SDSs) in accordance with the OSHA Hazard Communication Standard. The SDS must contain the hazard evaluation information for that product. West Virginia University will rely on the chemical manufacturers, importers, and/or distributors to provide an accurate, complete, and current SDS for chemicals and/or chemical mixtures.

A Safety Data Sheet must be:

- Obtained for all hazardous chemicals used in a work area.
- Available and accessible during **all** work shifts via hard copy (i.e. SDS binder/File).
 - Principle Investigators, Researchers, Department managers/Supervisors must maintain copies of the required safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). **(Electronic access and other alternative to maintain paper copies of the safety data sheets are permitted as long as no barriers to immediate employees access in each workplace are created by such options) CFR 1910.1200 (g)(8)**
- Employees must be made aware of the location of the SDS file in their work area at the start of their job assignment.
- If the information has changed on the SDS, the old SDS must be archived and kept on file for 30 years. Safety Data Sheets for products no longer used must also be kept

for 30 years past the last use date and also labeled the last year when the chemical was used.

- In the event a SDS is not available for a particular chemical, a SDS may be requested from the manufacturer, importer, and/or chemical distributor.

The information contained in the SDS is required to be presented in a consistent 16-section format. The sections include:

Section 1: Identification

Section 2: Hazard(s) Identification

Section 3: Composition/Information on Ingredients

Section 4: First-Aid Measures

Section 5: Fire-Fighting Measures

Section 6: Accidental Release Measures

Section 7: Handling and Storage

Section 8: Exposure Controls/Personal Protection

Section 9: Physical and Chemical Properties

Section 10: Stability and Reactivity

Section 11: Toxicological Information

Section 12: Ecological Information (non-mandatory)

Section 13: Disposal Considerations (non-mandatory)

Section 14: Transport Information (non-mandatory)

Section 15: Regulatory Information (non-mandatory)

Section 16: Other Information, including date of preparation or last revision

Chemical Inventory

A current list of chemicals must be submitted electronically to the Environmental Health and Safety Department annually **on or before July 15 to EHS_Chemicals@mail.wvu.edu**.

--Unless a 9 month appointment, then a current list of chemicals must be sent to EHS in May prior to leaving for the summer.

The Chemical Inventory Form is located in Appendix A and also at <http://www.ehs.wvu.edu/laboratory-and-research-safety/hazardous-materials/chemical-inventory> .

The chemical inventory must include the following:

- Building, Department and Lab/Room number
- Faculty/PI name and office, cell/home phone numbers
- Chemical Hygiene Officer (CHO) name and office, cell/home phone numbers
- Lab Manager or other lab worker name and office, cell/home phone numbers
- Number of doors entering the lab/room
- Chemical or product name
- Amount of the chemical in the work area
- Manufacturer of the chemical
- Chemical Abstracts Service (CAS) Number
- Location of the chemical within the work area
- Expiration date
- National Fire Protection Association (NFPA) Health, Fire, Reactivity ratings and any NFPA Special Hazards
- SDS

The hazard communication standard requires that employees be identified who are in the work area and the chemicals to which they may be exposed. The Employee Potential Exposure Information Form is located in Appendix C. This form should be completed for each Chemical Inventory and should be attached to the inventory form. Previous years' Employee Potential Exposure Information Forms should be maintained in the work area or other designated departmental location for one additional year.

6.3 Labels

Chemicals and/or products used by WVU personnel are subject to the labeling requirements of the Hazard Communication Standard. Each original shipment container, portable container, and stationary process container must include the appropriate hazard warning for each chemical, or mixture as a whole, based on the method of hazard determination (29 CFR 1910.1200(d)(2) Appendix B).

Per 29 CFR 1910.1200(f)(1)(i-vi), hazardous chemicals from the manufacturer or importer must be labeled with:

- 1) The product identifier;
- 2) A signal word;
- 3) A hazard statement;
- 4) Pictogram(s) (see Appendix B);
- 5) A precautionary statement; and,
- 6) The name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

Chemical containers, both hazardous and non-hazardous, must be checked to ensure that they are properly labeled upon arrival from the manufacturer. Incorrectly labeled containers must be corrected immediately or immediately returned to the manufacturer or vendor. Additionally, labels must not be removed or defaced on incoming containers of hazardous chemicals.

Secondary containers for daily use and/or storing chemicals must be labeled with the product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals.

- Portable secondary containers intended for immediate use must be marked with the product identifier or chemical name of the material as found on the SDS or on the original shipment container.

Labels or other forms of warning must be legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift.

- If employees speak other languages, then information in the other languages may be added to the containers.

The use of unmarked, portable containers of hazardous chemicals is not permitted.

- **No exceptions will be granted.**

If an employee or student has skin or eye contact with a corrosive chemical, he or she must flush the skin or eye area for at least 15 minutes and then get medical attention immediately.

Signs must be posted to show the location of safety showers, eyewash stations, exits and fire extinguishers.

Laboratory work areas must be kept clear and free of obstructions, especially in front of safety showers, eyewash stations, aisles, and exit routes. All laboratory personnel must be made aware of exit routes when beginning work.

7. Recordkeeping

Records generated and maintained to document compliance with the Hazard Communication Program will be maintained as provided:

- 1) Chemical Inventory Forms – shall be maintained annually by Chemical Hygiene Officers (CHOs) and the Environmental Health & Safety Department. The Environmental Health & Safety Department will archive copies of all Chemical Inventory Forms.
- 2) Training Records – shall be maintained by the department offering the training . Training records for employees must be maintained for at minimum the duration of employment. Specific hazard training offered by departments shall be maintained by those departments offering the training.
- 3) Safety Data Sheets – must be immediately available to workers and maintained by designated employees, such as CHOs, researchers, PIs, and the Facilities Management zones. Safety Data Sheets must be archived and kept on file for 30 years. Safety Data Sheets for products no longer used must also be kept for 30 years past the last use date. (See Section 6.2)
- 4) Medical Records – shall be maintained by WVU Healthcare – Occupational Medicine in accordance with the requirements in OSHA 29 CFR 1910.1020 (*Access to Employee Exposure and Medical Records*) and applicable medical monitoring requirements.
- 5) Exposure Assessment/Monitoring Records – shall be maintained by the Environmental Health & Safety Department. See WVU’s Medical Monitoring Program at <https://www.ehs.wvu.edu/files/d/4b30a75c-e751-4fcd-911f-f49967cd6721/medical-surveillance-august22post.pdf>
- 6) Incident Investigation Reports – shall be maintained by the Environmental Health & Safety Department. See the WVU Employee Injury/Incident Report form at <https://www.ehs.wvu.edu/health/injury-illness>

8. Regulations

29 CFR 1910.1200

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10099

29 CFR 1910.1450

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10106

29 CFR 1910.1020

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10027

9. Program Review

The Hazard Communication Program was reviewed and accepted by West Virginia University faculty and staff.

10. Program Revisions

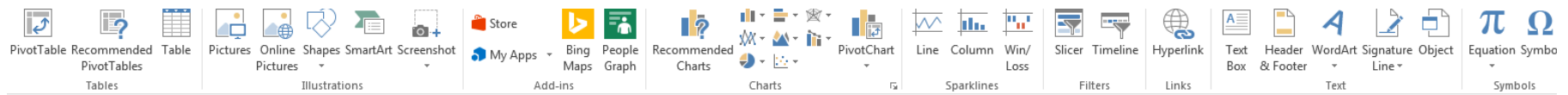
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11. Appendices

APPENDIX A CHEMICAL INVENTORY FORM

*Access the full Chemical Inventory Form at:

<http://www.ehs.wvu.edu/laboratory-and-research-safety/hazardous-materials/chemical-inventory>



A1 : Note: Please fill in ALL INFORMATION, if you have any questions, please contact Jennifer Scheuch at 304-293-5787. To see additional instructions, please hover over the red comment triangles.

1	A	B	C	D	E	F	G	H	I	J	K	L	M	
2	<p>Note: Please fill in ALL INFORMATION, if you have any questions, please contact Jennifer Scheuch at 304-293-5787. To see additional instructions, please hover over the red comment triangles. Please use a separate form for each lab/work area. Thank you!</p>		Building:	Faculty Name:		Office Phone:	Cell Phone:	Home Phone:						
3			Department:	CHO Name:										
4			Lab/Room Number:	Lab Manager/Other Name:		Chemical Hygiene Officer	Note: In case of chemical emergency in your lab, please provide phone numbers.		Note: NFPA special hazards are Acids, Alkalines, Corrosive, Oxidizer, Radioactive, Water Reactive, Cryogenic, Biohazard, or Asphyxiant Gas.					
5														
6					Date:	Number of Doors Entering Lab:		Posting need replaced?						
7														
8			Chemical Name	Amount	Manufacturer	CAS Number	Location of Chemical	Expiration Date	NFPA Health Rating	NFPA Fire Rating	NFPA Reactivity Rating	NFPA Special Hazards	(M)SDS in Lab? Y/N	
9							Note: NFPA rating must be 0, 1, 2, 3, or 4		Note: NFPA rating must be 0, 1, 2, 3, or 4		Note: NFPA rating must be 0, 1, 2, 3, or 4		Note: NFPA special hazards are Acids, Alkalines, Corrosive, Oxidizer, Radioactive, Water Reactive, Cryogenic, Biohazard, or Asphyxiant Gas.	
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APPENDIX B

GHS PICTOGRAMS

Hazard Communication Standard Pictogram

The Hazard Communication Standard (HCS) requires pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

For more information:



U.S. Department of Labor



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Occupational Safety and Health Administration

www.osha.gov (800) 321-OSHA (6742)

APPENDIX C

EMPLOYEE POTENTIAL EXPOSURE INFORMATION

FORM

Employee Potential Exposure Information Form

Name of Department:

Name and Title of Department Head/Chair:

Name and Phone Number of Principal Investigator/Laboratory
Manager:

Building and Room/Laboratory Number:

Department Chemical Hygiene Officer (CHO):

Location of Chemical Inventory Form within the Laboratory:

Location of SDS Book within the Laboratory:

How information and training specific to chemicals located in your
laboratory/work area are communicated to employees: _____

List Employees who work in the Laboratory/Work Area:

***Submit this form with your annual Chemical Inventory Form to your CHO.**