

Hazard Communication Program

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1.0 Purpose

Portland State University (PSU) is committed to providing a safe work environment for all employees. This Hazard Communication Program has been established to provide communication and training associated with employee use of hazardous materials. This Program is required by, and meets the requirements of, Oregon Occupational Safety and Health Administration (OR-OSHA) Hazard Communication Standard. The Program helps maintain a safe and healthy work environment by increasing awareness of workplace chemicals, potential health effects, safe work practices and emergency procedures.

2.0 Scope

The Hazard Communication Program applies to all PSU employees who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies, such as an uncontrolled release of a hazardous chemical into the workplace.

Exemptions and partial exemptions:

- Employees in office environments (See Appendix A)
- Employees who use only household consumer products in the same manner that a consumer would use them, i.e., with limited frequency and duration of use (See Appendix A)
- Employees engaged in the laboratory use of hazardous chemicals and working with these chemicals on a laboratory scale.
 - Research laboratory employees are primarily covered under the [PSU Chemical Hygiene Plan](#), except as noted in the Laboratory Employee section of this written Program.
 - Laboratory employees with work activities involving formaldehyde or formaldehyde-containing products are covered under the [PSU Formaldehyde Hazard Communication Plan](#).
 - In all other areas that use chemicals, but do not fall under the OSHA definition of a “laboratory”, this written Hazard Communication Program applies.
- Employees who work in storerooms, except as noted in the Storeroom Employee section of this written Program.
- Employees who work in the Chemistry Stockroom, except as noted in the Laboratory and Chemistry Stockroom Employee section of this written Program.

3.0 Definitions

Exposure or exposed means that an employee is subjected, in the course of employment, to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Foreseeable emergency - 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 element, chemical compound or mixture of elements and/or compounds which pose a physical or health hazard. This definition applies to all hazardous chemicals regardless of quantity or concentration.

- Examples include: combustible liquids, compressed gases, flammables, oxidizers, carcinogens, irritants, reproductive toxins, corrosives, and sensitizers.
- Wood dust and chemically treated wood are also classified as hazardous chemicals under the Hazard Communication standard.
- Chemicals exempted from this requirement include:
 - Solid, administered, pharmaceuticals, which have not been determined as hazardous by the manufacturer
 - Consumer products, food, alcoholic beverages, cosmetics or hazardous substances that are used for the purpose intended by the manufacturer and where exposure is not greater than that of a consumer using the product for its intended purpose (for example, household cleaner used for occasional cleaning in an office area)
 - Tobacco or tobacco products
 - Ionizing and non-ionizing radiation and biological hazards, which are regulated in separate standards

Incidental release - A release of a hazardous substance which does not pose a significant safety or health hazard to employees in the immediate vicinity or to the employee cleaning it up, nor does it have the potential to become an emergency within a short time frame. Incidental releases are limited in quantity, exposure potential, or toxicity and present minor safety or health hazards to employees in the immediate work area or those assigned to clean them up.

Laboratory - A facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

Laboratory scale - Work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person.

4.0 Responsibilities

An effective Hazard Communication Program requires an understanding of roles and responsibilities of affected employees. Implementation of the Program provisions is the responsibility of each employee under the direction of individual PSU departments. Environmental Health and Safety (EHS) is responsible for providing technical guidance.

4.1 Employees

- Read and understand this Hazard Communication Program and participate in Hazard Communication training and chemical specific training (i.e., asbestos, silica, lead) when applicable.
- Maintain integrity of manufacturer labels on chemical containers.
- Label secondary containers with common name/product identifier and hazard information when transferring a chemical from the manufacturer's container into a secondary container, when not for immediate use by the employee.
- Review the container label and/or Safety Data Sheet (SDS) for chemical hazard information before use.
- Notify supervisor when there is a problem with the chemical inventory, label, SDS, or if there is a health and safety concern.
- Use personal protective equipment (PPE) appropriately.
- Follow precautions specified by the label, SDS, and/or department work practices when handling chemicals.
- Before conducting work activities which may impact asbestos, lead and silica, contact supervisor for information about safe work practices to prevent exposure.
- Contact supervisor for information about hazardous substances transferred through pipes, the physical and/or health hazards, and safe work practices to prevent exposure.

4.2 Departments/Supervisors

- Maintain a list of departmental employees and/or job positions/titles who are covered by this program. Refer to Appendix B for a form to track departmental information.
- Ensure employees receive information and training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new chemical hazard the employee(s) have not previously been trained about is introduced into their work area. This includes potential hazardous materials that could be impacted by work activities, including lead, asbestos, and silica.
- Ensure that covered employees read and understand this program.
- Ensure that all employees have access to PPE and are trained in its proper use.
- Ensure that employees review SDSs prior to using chemicals covered by this program.
- Maintain a hazardous material inventory (see Appendix C) and SDSs that are up to date and accessible to employees.
- Develop written work practices and/or Standard Operating Procedures (SOPs), in coordination with EHS, for chemicals with significant exposure risk when applicable. Train employees on these work practices and document training.
- Ensure that employees receive necessary specialized training, including safe chemical handling and required PPE, before performing non-routine tasks using a new hazardous material or using a material in an unfamiliar way.
- Ensure employees are provided with information and training about asbestos-containing material locations, PSU's asbestos labeling and mechanical room warning signage, and safe work practices to prevent exposure.
- Ensure employees are provided with information about the chemical hazard placarding system for laboratory and creative spaces.

- Request assistance from EHS, as needed.

4.3 Department Representatives Contracting with Outside Contractors/Vendors (i.e., Capital Projects and Construction (CPC) and Facilities and Property Management (FPM))

- Inform contractors of any precautionary measures that need to be taken to protect their employees during PSU's normal operating conditions and in foreseeable emergencies.
- Ensure contractors receive information on hazardous materials in their work area. This includes potential hazardous materials that could be impacted by a project, including lead, asbestos, and silica.
- Reach out to EHS for assistance with hazardous material assessments and surveys.
- Inform contractors and custodial staff of the chemical hazard placarding system for laboratory and creative spaces.
- Inform contractors of the asbestos labeling information, the location and contents of the mechanical room signs and asbestos-containing material (ACM) list, and ensure that proper protocols are in place to prevent damage to ACM.
- For abatement and/or construction activities in mechanical rooms, ensure the integrity of the asbestos warning signs, and update signage to reflect any changes in information content subsequent to project activities. If signs are found to be missing or damaged, contact EHS for replacement.
- Provide on-site access to Safety Data Sheets (SDSs) for each PSU owned or managed hazardous chemical the contractor employees may be exposed to while working on-site.
- Request contractors provide a chemical inventory list and SDSs for the contractor owned or managed materials that will be introduced into the work area(s) at the University.
- Request contractors provide information regarding the location and schedule for chemical use and storage. Contact EHS-group@pdx.edu for quantities greater than 500 pounds, 500 gallons, or 500 cubic feet, as these quantities trigger reporting to the Oregon State Fire Marshal.
- Request assistance from EHS, as needed.

4.4 Environmental Health and Safety (EHS)

- Develop, manage, evaluate and update the Hazard Communication Program periodically.
- Maintain the written PSU Hazard Communication Program and make it accessible to all employees.
- Deliver training on the PSU Hazard Communication Program to new employees and upon program revision, including silica, asbestos, lead and other chemical specific training, when applicable.
- Provide consultation to departments to ensure successful program implementation.
- Maintain training records for EHS-provided Hazard Communication training.
- Affix and replace asbestos warning labels on pipes or piping systems which use asbestos as a pipe insulation material.

- Post and maintain asbestos warning signs on PSU mechanical rooms.
- Provide safety information to custodial contractor management, to include: laboratory safety awareness, emergency response procedures, and an explanation of laboratory signage.

4.5 Laboratory and Chemistry Stockroom Employees

Laboratory employees are primarily covered under the [PSU Chemical Hygiene Plan](#), with the exception of the following requirements under the Hazard Communication rule:

- Ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.
- Maintain any Safety Data Sheets (SDSs) that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each work shift to laboratory employees when they are in their work areas.
 - Upon receipt at the Chemistry Stockroom, add chemicals into the PSU chemical inventory system, Environmental Health and Safety Assistant (EHSA).
 - When SDSs are received for new chemicals not already in the chemical inventory system, ensure they are added to the database.
- Read and understand this Hazard Communication Program and participate in Hazard Communication training.

Laboratory employees with work activities involving formaldehyde or formaldehyde-containing products are covered under the [PSU Formaldehyde Hazard Communication Plan](#).

4.6 Storeroom Employees (Materials Management)

In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (such as are found in warehousing or retail sales), the following applies to these operations:

- Ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.
- Maintain copies of any Safety Data Sheets (SDSs) that are received with incoming shipments of the sealed containers of hazardous chemicals, obtain a SDS as soon as possible for sealed containers of hazardous chemicals received without a SDS if an employee requests the SDS, and ensure that the SDSs are readily accessible during each work shift to employees when they are in their work area(s).
- Read and understand this Hazard Communication Program and participate in Hazard Communication training.

5.0 Program Requirements

The Hazard Communication Program requires a hazardous material inventory, maintenance of SDSs, chemical container labeling and training, as described in the following sections.

5.1 Hazardous Material Inventory

Each PSU department is responsible for maintaining an inventory of hazardous materials in each department or work area. The inventory should list each hazardous material as it is identified on the Safety Data Sheets (SDSs) and container labels. Inventories must be maintained for 30 years. See Appendix C for hazardous material inventory instructions and suggested format.

Exempt chemicals listed in “Definitions” section, above, need not be listed. Contact EHS-group@pdx.edu for help in determining if a chemical must be listed.

5.2 Safety Data Sheets

Each chemical listed on the hazardous material inventory must have a Safety Data Sheet (SDS) prepared by the manufacturer or supplier. This SDS must be readily accessible to all employees using or exposed to that chemical. When a new chemical is introduced into the workplace, the SDS must be obtained and made available to employees before employees use the new chemical. Periodically, the department should check its SDSs to ensure accuracy and accessibility.

Departments may obtain an SDS in a number of ways:

- Download or request an SDS from the manufacturer’s or supplier’s website;
- Verbally request an SDS from the manufacturer or supplier; or
- Keep the copy sent by the manufacturer or supplier when the chemical is received.
- Request assistance from EHS, as needed, by contacting EHS-group@pdx.edu, or outside normal working hours, EHS on-call number 503-725-9347.

If departments use the same chemical from multiple manufacturers or suppliers, they may maintain only one SDS that is representative of all.

Departments may choose to provide employee access to SDSs in any format, including:

- Electronic document or link saved in the department’s network folder (Note: employees must be trained on procedures to access SDSs electronically)
- Department webpage
- Hard-copies in the workplace

Electronic access and other alternatives to maintaining paper copies of the safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options. If access to SDSs is provided electronically, there must be an adequate back-up system in place in the event of a power outage, equipment failure, or other emergency involving the primary electronic system (e.g. interruption of internet connection). This backup system can also be electronic, but it must be separate from the primary system and

not rely on the same services as the primary system, so that SDSs may be accessed immediately in the event of an emergency.

Safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals. However, the department shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in their work area(s).

5.3 Container Labels

A label is any written, printed or graphic material displayed on or affixed to containers of hazardous chemicals. Labels or other forms of hazard warnings such as tags or placards provide immediate warning of potential dangers. They may also be used to warn of a variety of potential physical or health hazards.

Each chemical container in the workplace must be labeled, tagged or marked with **either**:

The label on the original container, to include:

- Product identifier;
- Signal word;
- Hazard statement(s);
- Pictogram(s) (see Appendix D);
- Precautionary statement(s); and
- Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

or:

The product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the Hazard Communication Program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

The easiest way to comply with this requirement is to maintain the original container label from the manufacturer. As of December 1, 2015, all manufacturers must use GHS¹ labels on their containers. If the original label becomes worn or difficult to read, replace the label with information from either the original label or the SDS.

Signs, placards, or operating procedures may be used in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the

¹ Global Harmonization System (GHS) is a regulatory program update to the Hazard Communication requirements. GHS requirements are incorporated throughout this document as well as in the HazCom training that PSU employees receive.

containers to which it is applicable and conveys the required information noted above. Written materials must be readily accessible to employees in their work area.

Labeling is not required for portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended **only** for the **immediate** use of the employee who performs the transfer.

5.4 Pipe Labeling for Hazardous Substances

Pipes and piping systems which contain or transport hazardous substances must be clearly labeled with the contents. Examples of pipes that contain hazardous substances are pipes that contain physical hazards, such as combustible liquids or compressed gas and pipes that contain health hazards, such as toxic, carcinogenic, or corrosive chemicals.

- Labeling on pipes and piping systems must be applied where confusion may occur, such as close to valves or flanges and adjacent to changes in direction, branches and where pipes pass through walls, floor or ceilings.
- Labels must be applied at the beginning and end of continuous pipe runs. Labels should also be placed at reasonable intervals.
- If a pipe is above or below the normal line of vision, the label must be applied above or below the horizontal centerline of the pipe so that employees can see it.

An alternative method to labeling individual pipes is to identify piping using signs, placards, or operating procedures. Departments should consult with EHS on this method.

5.5 Pipe Labeling for Pipes Insulated with Asbestos-Containing Material

Pipes or piping systems which use asbestos as a pipe insulation material must be labeled with an asbestos warning label **OR** an alternative method must be used to identify piping using signs, placards, or operating procedures.

- Labeling on pipes and piping systems must be applied where confusion may occur, such as close to valves or flanges and adjacent to changes in direction, branches and where pipes pass through walls, floor or ceilings.
- Labels must be applied at the beginning and end of continuous pipe runs. Labels should also be placed at reasonable intervals. For asbestos insulation, labels must be applied, at a minimum, every 75 feet on an unobstructed continuous pipe run.
- If a pipe is above or below the normal line of vision, the label must be applied above or below the horizontal centerline of the pipe so that employees can see it.
- Asbestos warnings must include the following information:

**DANGER
CONTAINS ASBESTOS FIBER
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS**

***DO NOT BREATHE DUST
AVOID CREATING DUST***

5.6 Asbestos Warning Signs for PSU Mechanical Rooms (Alternate Warning Method)

Mechanical and boiler rooms where employees may be expected to routinely enter and work around material known to contain ACM (asbestos-containing material) or PACM (presumed asbestos-containing material) are posted with asbestos warning signs. These signs are placed at each entrance to the room, and must remain clearly visible so that an entrant would be warned of the materials located in the area. In addition, there is a list of materials located in the space which are known to contain asbestos.

FPM personnel and CPC Project Managers are responsible for informing all new staff and contractors to the location and contents of the mechanical room signs and ACM material list, and for ensuring that proper protocols are in place to prevent damage to ACM. If signs are found to be missing or damaged, contact EHS for replacement.

For more information regarding work practices to minimize potential exposure to asbestos-containing materials, visit [PSU Asbestos Management Program](#).

5.7 Laboratory and Creative Spaces - Chemical Hazard Placarding System

Placards are placed outside each lab door which include the emergency contact information for the lab, chemical hazard information, and other special safety conditions in the lab, such as radioactive materials, lasers, open IACUC protocols, biohazardous materials, etc... Research in Progress signage is also placed on lab doors when entry is restricted due to special and/or temporary conditions taking place within the lab space.

FPM personnel and CPC Project Managers are responsible for informing contractors and custodial staff of the chemical hazard placarding system for laboratory and creative spaces. Refer to Appendix D for GHS pictograms used in the placarding system.

For more information about the laboratory and creative spaces placarding system, visit [Laboratory Door Signage](#) or contact EHS-group@pdx.edu.

5.8 Chemical Spills, Accidents, and Emergencies

Employees working with chemicals must be trained on proper spill response, including notifying emergency responders. Employees should only attempt to clean up small chemical spills if the employee has been trained to do so and has appropriate PPE and cleanup equipment.

Small Spills

Small spills are defined as incidental spills that are readily controlled and do not pose undue hazards to those in the immediate area. Small spills may, at the discretion of the immediate area supervisor, be cleaned up by personnel who are familiar with the associated hazards, have access to appropriate personal protective equipment (gloves, eye protection, etc...) and have been trained in proper cleanup procedures.

Anticipate spills by having the proper safety equipment on hand and review spill cleanup information in the Safety Data Sheet. Waste collected during a small spill cleanup must be managed as a hazardous waste and should **not** be discarded in the regular trash. Contact EHS-group@pdx.edu for proper waste disposal.

Major Spills

Major spills are spills that are extremely hazardous even in small quantities. Unexpected compressed gas releases and releases of extremely hazardous substances are to be treated as major spills.

If a major spill occurs, perform the following:

1. Alert personnel in the immediate area to evacuate until an EHS Emergency Coordinator or other emergency responder arrives and indicates it is safe to reoccupy the area.
2. Perform necessary actions to protect life and minimize exposure, which may include pulling the fire alarm to evacuate the building. Employees should not attempt to clean up the spill themselves.
3. Call Campus Public Safety Office (CPSO) at 503-725-5911 and the Fire Department (911) if the spill threatens human health or the environment, or if additional assistance is required in managing the spill or associated injuries or exposures.
4. Call EHS (503-725-9347).
5. Keep others from entering the area until help arrives.

6.0 Information and Training

6.1 General Hazard Communication Information and Training

Departments must ensure employees receive information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and Safety Data Sheets.

Employees must be informed of:

- The requirements of Oregon OSHA's hazard communication rule;
- Any operations in their work area where hazardous chemicals are present; and
- The location and availability of the written Hazard Communication Program, including the required list(s) of hazardous chemicals, and Safety Data Sheets for the work area.

Training must include the following:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.)
- Physical and health hazards of the chemicals in their work area
- The measures employees can take to protect themselves from these hazards, including specific procedures implemented to protect employees from exposure to hazardous chemicals, such as engineering controls, work practices, emergency procedures, and personal protective equipment
- The details of the PSU written Hazard Communication Program
- An explanation of how to use and understand the labels received on shipped containers and any specific workplace labeling system used in their work area. This includes the asbestos labeling information and the laboratory and creative spaces chemical hazard placarding system .
- An explanation of the Safety Data Sheet, including the order of information and how employees can obtain and use the appropriate hazard information

6.2 Laboratory Specific Information and Training

Laboratory employees must be provided with information and training, as outlined in the General Hazard Communication Information and Training section of this written Program, with the exception of the location and availability of the written Hazard Communication Program.

Laboratory employee training requirements are covered under the [PSU Chemical Hygiene Plan](#) and include the “Working Safely in a Lab” training provided through the Chemistry Stockroom and EHS.

6.3 Laboratory Safety Awareness Training

This section applies to non-laboratory employees who enter laboratory spaces in the course of their work activities, including FPM, CPC, and CPSO.

Employees must be provided with laboratory safety awareness training, including an explanation of the chemical hazard placarding system.

6.4 Storeroom Specific Information and Training

Storeroom employees must be provided with information and training, as outlined in the General Hazard Communication Information and Training section of this written Program (with the exception of the location and availability of the written Hazard Communication Program) to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

6.5 Respirable Crystalline Silica Information and Training

This section applies to employees who work with and around silica-containing materials during demolition, maintenance and renovation activities.

Each employee must have access to labels on containers of crystalline silica and Safety Data Sheets.

Each employee must be trained in accordance with the provisions of the Hazard Communication Standard and the Oregon OSHA silica rule. Training must address at least the following hazards: cancer, lung effects, immune system effects, and kidney effects.

Each employee covered by the silica rule must be able to demonstrate knowledge and understanding of at least the following information:

- The health hazards associated with exposure to respirable crystalline silica
- Specific tasks in the workplace that could result in exposure to respirable crystalline silica
- Specific measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and respirators to be used
- The contents of the Oregon OSHA silica rule
- The purpose and a description of the medical surveillance program required by the Oregon OSHA silica rule
- When a competent person is required, the identity of the designated competent person.

A copy of the [Oregon OSHA silica rule](#) must be readily available to each employee covered by the rule.

For more information regarding work practices to minimize potential exposure to silica-containing materials, visit [PSU Silica Exposure Control Program](#).

For questions regarding silica use or to request monitoring for exposure to silica, please contact EHS-group@pdx.edu.

6.6 Asbestos Labeling and Warning Signage

Employees must be provided with information about asbestos-containing material locations, PSU's asbestos labeling and mechanical room warning signage, and safe work practices to prevent exposure.

For more information regarding work practices to minimize potential exposure to asbestos-containing materials, visit [PSU Asbestos Management Program](#).

For questions regarding asbestos, please contact EHS-group@pdx.edu.

6.7 Formaldehyde Information and Training

This section applies to employees who work with or around formaldehyde or formaldehyde-containing products in laboratory settings. These work activities are covered under a separate [PSU Formaldehyde Hazard Communication Plan](#).

Employees must have access to labels on containers of formaldehyde and formaldehyde-containing materials and to Safety Data Sheets.

Employees who have the potential to be exposed to formaldehyde, formalin solution, and/or paraformaldehyde are required to take annual formaldehyde specific training through D2L.

Employees must be trained in accordance with the provisions of the Hazard Communication Standard and the Oregon OSHA formaldehyde rule.

Training must include:

- A discussion of the contents of the [Oregon OSHA formaldehyde rule](#).
- The purpose for and a description of the medical surveillance program required by the rule, including:
 - A description of the potential health hazards associated with exposure to formaldehyde and a description of the signs and symptoms of exposure to formaldehyde.
 - Instructions to immediately report to the supervisor the development of any adverse signs or symptoms that an employee suspects is attributable to formaldehyde exposure.
- Description of operations in the work area where formaldehyde is present and an explanation of the safe work practices appropriate for limiting exposure to formaldehyde in each job
- The purpose for, proper use of, and limitations of personal protective clothing and equipment
- Instructions for the handling of spills, emergencies, and clean-up procedures
- An explanation of the importance of engineering and work practice controls for employee protection and any necessary instruction in the use of these controls
- A review of emergency procedures including the specific duties or assignments of each employee in the event of an emergency

The use of formaldehyde must follow specific policies and procedures based on the work environment. Reference the [PSU Formaldehyde Hazard Communication Plan](#) for more information on responsibilities and requirements. If you have questions regarding formaldehyde use or would like to request monitoring for exposure to formaldehyde, please contact EHS-group@pdx.edu.

6.8 Benzene Information and Training

This section applies to employees who work with or around benzene or benzene-containing products (greater than 0.1% by volume).

The purchase of benzene and benzene-containing products requires additional training that can be obtained through EHS. Refer to the [PSU Chemical Hygiene Plan](#) for more information regarding work practices to minimize exposure to benzene and benzene-containing products in laboratories. If you have questions regarding benzene use or would like to request monitoring for exposure to benzene, please contact EHS-group@pdx.edu.

Employees must have access to labels on containers of benzene and benzene-containing materials and to Safety Data Sheets.

Employees must be trained in accordance with the provisions of the Hazard Communication Standard and the Oregon OSHA benzene rule.

Training must include:

- The hazards of benzene, including: cancer; central nervous system effects; blood effects; aspiration; skin, eye, and respiratory tract irritation; and flammability.
- An explanation of the contents of the [Oregon OSHA benzene rule](#), including Appendix A (Substance Safety Data Sheet, Benzene) and Appendix B (Substance Technical Guidelines, Benzene).
- A description of the medical surveillance program required under the benzene rule, and an explanation of the information contained in Appendix C of the rule (Medical Surveillance Guidelines for Benzene).

6.9 Lead-Containing Materials Information and Training

This section applies to employees who work with and around lead-containing materials during demolition, maintenance and renovation activities.

Each employee should familiarize themselves with potential lead-containing materials which may be impacted by their scope of work and for which appropriate work practices and controls may be warranted to control the associated hazards. For assistance with material assessments for lead, contact the EHS-group@pdx.edu. For more information regarding work practices to minimize potential exposure to lead-containing materials, visit [PSU Lead-Based Paint Program](#).

Each employee must be trained in accordance with the provisions of the Hazard Communication Standard and the Oregon OSHA lead rule. Training must address at least the following hazards: reproductive/developmental toxicity, central nervous system effects, kidney effects, blood effects, and acute toxicity effects.

Each employee must be trained in the following:

- The content of the Oregon OSHA lead rule and its appendices, including Appendix A, Substance Data Sheet for Occupational Exposure to Lead
- The specific nature of the operations which could result in exposure to lead above the action level
- The purpose, proper selection, fitting, use, and limitations of respirators
- The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse

reproductive effects on both males and females and hazards to the fetus and additional precautions for employees who are pregnant)

- The engineering controls and work practices associated with the employee’s job assignment including training of employees to follow relevant good work practices described in Appendix B, Employee Standard Summary, of the Oregon OSHA lead rule
- The contents of the PSU Lead-Based Paint Program
- Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician
- The content of Oregon OSHA’s employee’s right of access to employee exposure and medical records under 29 CFR 1910.1020

A copy of the [Oregon OSHA lead rule and its appendices](#) must be readily available to each employee covered by the rule.

For questions regarding lead-containing materials or to request monitoring for exposure to lead, please contact EHS-group@pdx.edu.

6.10 Non-Routine Task Specific Training

Employees may periodically be required to perform non-routine tasks using a new hazardous material or using a material in an unfamiliar way. Employees must be informed of chemical and physical hazards associated with these tasks and appropriate protective/safety measures prior to performing work. The supervisor must ensure that employees receive necessary specialized training, including safe chemical handling, required PPE, exposure monitoring if required, and other possible control measures. EHS is available for consultation.

Examples of non-routine tasks performed by employees at PSU include:

Task	Hazards/Chemicals	SOP	Department
Small/incidental spill clean-up	Chemical exposure, specific hazards dependent on type of chemical spilled		EHS, FPM, MM, Campus Rec

6.11 Chemical Spills, Accidents, and Emergencies Information and Training

This section applies to employees who work with chemicals, including FPM, EHS, Materials Management, Campus Rec, and employees working with chemicals in laboratories, creative spaces and research areas. This section also applies to CPSO to the extent that they receive information and training on emergency response and notification procedures.

Employees working with chemicals must be trained on proper spill response, including notifying emergency responders. Employees should only attempt to clean up small chemical spills if the employee has been trained to do so and has appropriate PPE and cleanup equipment.

Training should include:

- Spill response procedures for small incidental spills and for major spills (see Section 5.8).
- How to review spill cleanup information on the SDS and anticipate spills by having the proper safety equipment and spill cleanup materials on hand.
- How to identify the appropriate personal protective equipment needed for a small spill cleanup.
- How to dispose of hazardous waste collected during a spill cleanup. Waste must be managed as a hazardous waste and should **not** be discarded in the regular trash. Contact EHS-group@pdx.edu for proper waste disposal.
- What to do if a major spill occurs:
 1. Alert personnel in the immediate area to evacuate until an EHS Emergency Coordinator or other emergency responder arrives and indicates it is safe to reoccupy the area.
 2. Perform necessary actions to protect life and minimize exposure, which may include pulling the fire alarm to evacuate the building. Employees should not attempt to clean up the spill themselves.
 3. Call Campus Public Safety Office (CPSO) at 503-725-5911 and the Fire Department (911) if the spill threatens human health or the environment, or if additional assistance is required in managing the spill or associated injuries or exposures.
 4. Call EHS (503-725-9347)
 5. Keep others from entering the area until help arrives

7.0 Recordkeeping

EHS:

- Maintains training records for EHS-provided Hazard Communication training and hazardous material specific training, including silica, lead and asbestos training
- Maintains and updates asbestos warning signs on PSU mechanical rooms
- Maintains and updates the Hazard Communication Program, as needed
- Maintains employee exposure records for at least 30 years
- Coordinates with Kaiser Permanente Occupational Health to maintain medical records for the duration of an employee's employment plus 30 years
- Coordinates with departments to maintain laboratory safety training records through the D2L learning management system.
- Coordinates with the Biology Department to maintain formaldehyde training records through the D2L learning management system.
- Coordinates with departments on placement and maintenance of the laboratory and creative space chemical hazard placards.

Departments/Supervisors:

- Maintain a list of departmental employees and/or job positions/titles who are covered by this Program. Refer to Appendix B for a form to track departmental information.
- Maintain a hazardous material inventory and SDSs that are up to date and accessible to employees. Inventories must be retained for 30 years and must include a record of the

identity (chemical name if known) of the substance, where it was used, and when it was used. Refer to Appendix C for a form to track hazardous material inventories.

- Maintain written work practices and/or standard operating procedures, when applicable, and document and maintain employee training.

Materials Management Storeroom:

- Maintains SDSs received with incoming shipments of hazardous chemicals.

8.0 Program Management

The Hazard Communication Program is maintained by the EHS department, reviewed periodically, and updated as needed.

The written Hazard Communication Program is available, upon request, to employees or their designated representatives, by contacting the EHS-group@pdx.edu or visiting the [EHS Hazard Communication Program](#) webpage.

For additional information or assistance, contact EHS at EHS-group@pdx.edu or call (503) 725-3738.

9.0 Regulatory Standards

Oregon OSHA Division 2, Subdivision Z, 1910.1200 Hazard Communication requires development, implementation and maintenance of a written Hazard Communication Program.

Oregon OSHA Rules for Pipe Labeling (OAR 437-002-0378) applies to all piping systems containing hazardous substances or that use asbestos as a pipe insulation material.

Oregon OSHA Division 2, Subdivision Z, Silica (OAR 437-002-1063) requires communication of respirable crystalline silica hazards to employees.

Oregon OSHA Division 2, Subdivision Z, 1910.1020 Access to Employee Exposure & Medical Records requires maintenance of employee exposure records, Safety Data Sheets (SDSs), and chemical inventories

Oregon OSHA Division 2, Subdivision Z, 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories

Oregon OSHA Division 2, Subdivision Z, 1910.1048, Formaldehyde applies to all occupational exposures to formaldehyde

Oregon OSHA Division 2, Subdivision Z, 1910.1028, Benzene applies to all occupational exposures to benzene

Oregon OSHA Division 3, Subdivision D, 1926.62, Lead applies to construction work where an employee may be occupationally exposed to lead

APPENDICES

Appendix A – PSU Hazard Communication for Office Environments

Appendix B – PSU Departmental Hazard Communication Information

Appendix C – PSU Departmental Hazardous Materials Inventory

Appendix D – GHS Pictograms and Sample Label