

<p>WASHINGTON ADVENTIST UNIVERSITY DEPARTMENT OF PUBLIC SAFETY</p> <p><b>ENVIRONMENTAL HEALTH AND SAFETY PLAN</b></p>	<p><b>APPLICABILITY: ALL UNIVERSITY BUILDINGS</b></p>		
	<p><b>ISSUE DATE</b> 03/30/2011</p>	<p><b>PAGE NUMBER</b> 1 of 10</p>	<p><b>REVIEW</b> 8/8/2017</p>
	<p><b>HAZARD COMMUNICATION PROGRAM</b></p>		

**Purpose**

The purpose of the Hazard Communication Program is to educate and inform Washington Adventist University (WAU) employees of the chemical substances that may be encountered in their daily operations. This program is in compliance with OSHA regulations, 29 CFR 1910.1200 and COMAR 09.12.33 and Title 5 subtitle 4 section 5-410 of Annotated Code of Maryland-Labor and Employment Article (access to information about Hazardous and Toxic substances) requiring the establishment of this program.

WAU is firmly committed to providing a safe and healthy work environment for each of its employees and students. It is recognized that some job-related procedures and other essential scholastic activities frequently require the use of chemicals which may have hazardous properties. When using these chemicals, it is important that employees and students are aware of the identity and hazardous properties of such chemicals, as well as what protective measures are available, since an informed person is more likely to be careful. Therefore, a written Hazard Communication Program has been prepared for WAU.

**Content of the Written Program**

The WAU written Hazard Communication Program establishes uniform requirements to assure that the hazards of all chemicals used on campus are evaluated, and that the resultant information is available to the employees. The following are the requirements of the Hazard Communication Program, as established by OSHA in 29 CFR 1910.1200:

1. Develop, implement and maintain a written program.
2. Evaluate the chemicals and materials used in the facility.
3. Obtain or develop a Safety Data Sheet (SDS) for each hazardous chemical or material produced or imported.
4. Ensure that each container of hazardous chemical or material is labeled, tagged or marked to identify the contents, along with any applicable hazard warnings.
5. Provide employees with effective information and training on the hazardous chemicals in the work area. This training is to be well documented as to date, type and contents of the training, as well as the testing method of understanding.
6. The contents of the program must be readily available to any and all employees and visitors.

The program provides instructions for non-university employers (e.g., contractors) regarding the hazards their employees may be exposed to when working in or around certain areas on the WAU Campus.

**Plan Administration**

The following table provides the roles and contact information for the administration of the hazard communication program:

Task	Contact Person	Contact Information
Overall Program administrator		
Chemical Labeling	Department Responsibility	See Department Head
Safety Data Sheet (SDS) Inventory	Department Responsibility	See Department Head
Employee Training	DHR	See Department Head

**The WAU Public Safety Director** is responsible for the overall implementation of the Plan, including reviewing, updating and inspections as necessary.

### **Labeling**

Each individual department is responsible for properly labeling all containers of hazardous chemicals and for maintaining and updating the labels.

### **SDS inventory**

Each individual department is responsible for maintaining up-to-date SDSs and ensuring that they are readily accessible in all work areas.

### **Employee training**

Each individual department is responsible for training employees concerning hazardous chemicals in their work area that may be exposed to hazardous chemicals during normal operating conditions or during foreseeable emergencies, and office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered by the Hazard Communication Program.

### **Plan Availability**

Copies of this plan are available upon request to employees, or their designated representatives. If requested, this plan will be made available to any state or federal safety regulatory agency that is authorized to review it. Copies of the Plan are available by contacting the WAU Public Safety Department the involved department.

### **Article**

A manufactured item formed to a specific shape or design that has end use functions dependent upon that shape/design, and that does not release or otherwise result in exposure to a hazardous chemical under normal conditions of use. A chair is an article. Wood that is cut during construction of the chair may be considered hazardous due to health effects associated with inhalation of dusts.

### **Chemical**

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

### **Consumer Commodity**

Any article, product, or commodity which is available to consumers, and which is used in the same manner, frequency and duration as the typical consumer.

**Exposure or Exposed**

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**

Any potential occurrence such as, but not limited to equipment failure, container rupture or failure of control equipment that 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**

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 material 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.

**Facility Director**

The WAU employee responsible for directing and overseeing the activities of an outside contractor. Most Project Supervisors at WAU work for the Facilities Services Department.

**Trade Secret**

Any confidential formula or information that is used in an employer's business and gives that employer an opportunity to obtain an advantage over competitors who do not know or use it.

**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 (e.g., Facility Services).

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**Identification of Hazardous Materials**

Specific definitions of hazardous materials may be found in Appendix B of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Articles and Consumer Commodities (as defined in this Program) are not considered hazardous. Hazard Communication Coordinators and Supervisors share responsibility for the identification of chemical hazards in their workplaces. Hazardous substances in unlabeled piping must also be identified if employees are anticipated to have direct contact (including inhalation) with the substance. Information concerning physical and health hazards of chemical substances is contained in the materials SDSs. These documents are available from:

- a) Environmental Safety web site
- b) Department of Public Safety (DPS) at (301) 891-4019, even after normal business hours.
- c) The vendor, manufacturer or distributor. (A SDS must be provided at the time of initial purchase by the vendor, manufacturer or distributor without charge. A nominal fee may be assessed for additional copies.)
- d) Hazard Communication Coordinators and/or Supervisors must identify and evaluate the hazardous properties of all chemical substances used in the workplace. This information must be communicated to employees who have the potential for exposure to hazardous chemicals. If hazardous chemicals will be used in a non-routine manner (see definition), it is the responsibility of the supervisor to ensure that all hazards are assessed and appropriate protective measures implemented. Use of any of the following materials may be subject to specific occupational safety and health standards:
  - a. 2-Acetylaminofluorene
  - b. Acrylonitrile
  - c. 4-Aminodiphenyl
  - d. Asbestos
  - e. Benzene
  - f. Benzidine
  - g. 1,3-Butadiene
  - h. Cadmium
  - i. bis-Chloromethyl ether
  - j. Chromium (VI)
  - k. Coke oven emissions
  - l. 3,3'-Dichlorobenzidine (and its salts)
  - m. 1,2-Dibromo-3-Chloropropane
  - n. 4-Dimethylaminoazobenzene
  - o. Ethyleneimine
  - p. Ethylene oxide
  - q. Formaldehyde
  - r. Inorganic arsenic
  - s. Methyl Chloromethyl Ether
  - t. Methylene chloride
  - u. Methylenedianiline
  - v. alpha-Naphthylamine
  - w. beta-Naphthylamine
  - x. 4-Nitrobiphenyl
  - y. N-Nitrosodimethylamine
  - z. beta-Propiolactone
  - aa. Vinyl chloride

Users of these materials must comply with the provisions of the applicable substance-specific standard if employee exposure routinely exceeds the OSHA-mandated permissible exposure limit (or Action Level, if specified). Copies of these standards may be obtained from DPS or through the OSHA Web site at <http://www.osha.gov/>. Supervisors or Hazard Communication Coordinators may arrange for exposure

monitoring by contacting DPS at 301-891-4019. Additional information concerning monitoring is contained in the Exposure Monitoring section of this Program.

### **Hazard Determination**

All hazardous chemicals used or stored at the Washington Adventist University are purchased materials. There are no manufactured or intermediate hazardous chemicals in WAU facilities subject to this Hazard Communication Program except in research laboratories. Chemical manufacturers or distributors are responsible for determining material hazards. Additional requirements not addressed by this Hazard Communication Program apply to manufacturers, distributors and importers of hazardous materials. The WAU-Departments of Facility Services (DFS) and DPS must be notified in advance if any employee on campus plans to:

- a) **Manufacture** chemical materials for non-research use or distribution;
- b) **Distribute** hazardous chemicals to non-WAU entities; or
- c) **Import** hazardous materials from other countries for the purpose of the purpose of supplying them to distributors or non-WAU entities.

### **Chemical Information Lists**

Departments using hazardous materials must assemble and maintain accurate Chemical Information Lists that identify the hazardous materials in the workplace. The Hazard Communication Coordinator is responsible for ensuring the list is developed and maintained. Departments may develop a single list identifying hazardous materials used in multiple work areas, or may maintain a separate list for each work area. If multiple work areas are included in a single list, departments must include a system to permit the identification of hazardous materials by work area. Hazardous materials contained in piping systems where there is reasonable cause to suspect employee contact must also be included. Chemical Information Lists must include:

- (a) Complete name and business address of the employer;
- (b) Date of preparation or revision;
- (c) The product name (must match the name on its SDS); and
- (d) The hazardous chemical constituent of the material, unless the SDS indicates the composition, is a Trade Secret.

If a new hazardous material is brought to the workplace for use, it must be added to the Chemical Information List within 30 days. The date of addition must appear next to its entry. DPS must be advised within 30 days when new hazardous materials are brought to the workplace so they can be updated. Adjustments to the Chemical Information List should also be made within 30 days when hazardous materials are removed from inventory.

If symbols, letters or numbers are used to identify separate work areas, a key, map or other appropriate descriptive information must be included. The list(s) shall be attached to the Hazard Communication Program. Chemical Information Lists must be reviewed every year to assure they are accurate and complete. Lists will be re-alphabetized by product name annually, and copies forwarded to DFS and DPS for recordkeeping. DFS is responsible for providing Chemical Information Lists to the Maryland Department of the Environment and local (Montgomery County Fire and Rescue services, Officer of Fire Marshal) regulatory and response agencies

as necessary. DPS will archive all Chemical Information Lists to serve as an historical record of employees' potential chemical exposures.

### **Safety Data Sheets (SDSs)**

Safety Data Sheets (SDSs) are the primary source of reference information used by WAU supervisors and employees to evaluate materials for potential hazards, and to determine necessary precautions for safe use. Manufacturers, distributors or importers of hazardous materials must generate a SDS for each hazardous chemical, and are required to provide it to purchasers when the material is ordered or delivered. Formats for SDSs vary, but must contain the following data:

- (a) Name of material.
- (b) Identity of the hazardous constituent(s) that compromise 1% or greater of the material (0.1% or greater for carcinogens) or that may release airborne concentrations at hazardous levels.
- (c) Physical and chemical characteristics (e.g., vapor pressure, boiling point).
- (d) Physical hazards (e.g., flammability, corrosivity).
- (e) Health hazards including signs and symptoms of exposure and medical conditions that may be aggravated by exposure.
- (f) Primary routes of entry (e.g., inhalation, ingestion).
- (g) Regulated or recommended exposure limits.
- (h) Identification of carcinogenicity status.
- (i) Precautions for safe handling, use and storage.
- (j) Control measures to ensure safe use (e.g., exhaust ventilation).
- (k) Emergency and first aid procedures.
- (l) Date of preparation of SDSs.
- (m) Name, address and phone number of the SDS provider.

Hazard Communication Coordinators are responsible for ensuring that a system is established for providing employees access to SDSs in the workplace. Supervisors are responsible for ensuring that employees have access to MSDSs in the workplace. The SDS must be identified with the same name used on the Chemical Information List. If employees move between work sites, the SDSs may be kept at the primary work location if a system for access is established in this written program. The Hazard Communication Coordinator is responsible for ensuring that a system is implemented for providing employee access to SDSs in the event of an emergency. Electronic access or other "non-paper" formats are permissible if employees are assured immediate access to the information. SDSs must be in English, but copies may also be provided in other languages if desired.

The SDS does not need to include identification of chemical constituents if the material is classified a "trade secret." All other elements of the SDS must be completed to reflect the hazards and necessary precautions. Identification of the constituents must be disclosed to health care providers when requested, and when an employee's health is at issue. SDSs must be available to employees in the work area before the hazardous materials are used. Designated employee representatives must also be provided SDSs upon request. Supervisors are responsible for ensuring that SDSs are available prior to assigning tasks to employees that involve exposure to hazardous materials. If a SDS for a hazardous material is not available, employees shall not

be assigned tasks involving that material. If an employee or designated representative requests a copy of a SDS, it must be provided within five days.

SDSs are not required to be available in a language other than English. If an employee is unable to understand or interpret the information contained in the SDS, it is the Supervisor's responsibility to ensure appropriate direction or translation is provided to assure a clear understanding of hazards and protective measures. If a department relies on electronic means to access SDSs, a secondary method of access is required to ensure availability during power outages, computer failures, etc. Hazard Communication Coordinators may establish an internal system for hard copy access, or may designate DPS as an emergency repository of SDSs. If DPS is designated a point for emergency SDS access, Hazard Communication Coordinators must ensure DPS is provided with hard copies of all SDSs. Employees must be notified of methods to obtain an SDS during an emergency. DPS maintains a SDS library for most hazardous laboratory chemicals used or stored at WAU.

### **Exposure Monitoring**

OSHA has established Permissible Exposure Limits (PELs) for employee exposures to certain substances. Supervisors are responsible for identifying situations to the DPS that may require exposure assessments. DFS and DPS are responsible for conducting assessments and/or personal exposure monitoring when requested. These services are normally provided free-of-charge except for self-support organizations. PELs are specified in the OSHA regulation 29 CFR 1910, Subpart Z Toxic and Hazardous Substances which can be accessed at: <http://www.osha.gov>. PELs are usually included in the SDS and can also be obtained from DPS by calling 301-891-4019 or by e-mail at [security@wau.edu](mailto:security@wau.edu).

Permissible Exposure Limits are often listed as:

- Eight-hour time-weighted average (TWA). The average concentration to which an employee may be exposed to a particular chemical for up to eight hours per day, five days per week.
- Short Term Exposure Limit (STEL). The average concentration to which an employee may be exposed to a particular chemical for a limited period (e.g., fifteen minutes).
- Ceiling (C). The maximum concentration to which an employee may be exposed to a particular chemical at any time. Employee exposure should be monitored in the following circumstances:
  - Initially, where there is reason to believe that an employee's exposure to a chemical substance exceeds an action level (or in the absence of an action level, the PEL) for an OSHA-regulated substance; and
  - Periodically, where initial monitoring has disclosed employee exposure over the action level or PEL.

The training provided to Hazard Communication Coordinators by DPS will include information regarding examples of situations where employee exposure might exceed regulated or recommended exposure limits. DPS will perform exposure assessments and/or monitoring at the request of any supervisor or employee. The employee will be provided written notification of monitoring results within 15 working days after receipt of results by the University. Supervisors may call DPS at 301-891-4019 or e-mail at [security@wau.edu](mailto:security@wau.edu) to coordinate exposure monitoring.

Where initial monitoring discloses employee exposure over the action level or PEL, the affected employee must be provided with respiratory protection until engineering controls are available to control the exposure. If engineering controls are not feasible, respiratory, protection may be used on a permanent basis.

## **Information and 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. Employees shall be informed of:

- a. Contents of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and its appendices.
- b. Location and availability of the WAU Hazard Communication Program.
- c. Permissible exposure limits (PELs) for OSHA-regulated substances or recommended exposure limits if no PEL is listed.
- d. Methods and observations used to detect the presence or release of a hazardous chemical.
- e. Hazardous chemical properties including physical and health hazards associated with chemical exposure.
- f. Measures employees can take to protect themselves from chemical hazards including personal protective equipment, work practices and emergency procedures.
- g. Description of labeling systems.
- 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. Initial Training Requirements:
  - a. Option 1:
    - i. Departments may conduct their own initial Hazard Communication training if the following are satisfied:
      1. The trainer must attend the Train-the-Trainer Program provided by DPS,
      2. The training program content must satisfy all regulatory requirements and conditions of the WAU policy, and
      3. The trainer must be identified in the Hazard Communication Program Summary. DES reserves the right to periodically audit training conducted by other departments.
  - b. Option 2:
    - i. Training may be provided by DPS staff during regularly-scheduled classes or by other arrangements (subject to staff availability) by contacting DFS or DPS at 301-891-4019.
    - ii. Initial training for employees shall be coordinated through the department's Hazard Communication Coordinator. Retraining is not required unless work conditions change or unless a supervisor believes additional training is necessary.
    - iii. Supplemental or Hazard-Specific Training Hazard Communication Coordinator shall also provide or coordinate supplemental training to affected employees that identifies the specific hazardous chemicals in the workplace, the protective measures necessary to safely work with the materials and procedures to access SDSs. When new chemicals are brought into the workplace, additional training may be required to ensure employees understand the hazards and necessary protective measures. It is recommended that all training be documented by the Hazard Communication Coordinator.

### **Medical Consultation and Examinations**

Staff who work with hazardous chemicals should be referred for medical consultation, examination, and/or surveillance (as appropriate to the circumstances) whenever:

- a. An employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed.
- b. An event takes place in the work area that precipitates a hazardous exposure (e.g., significant spill of volatile toxic material).
- c. Exposure monitoring reveals an exposure level above the action level or Permissible Exposure Limit for an OSHA-regulated substance for which there are medical surveillance requirements, required by WAU policy.

The University has established procedures for responding to job-related injuries. These procedures should be followed if potentially-injurious exposures to hazardous chemicals occur. In the event of life-threatening injuries or illnesses, the Emergency Dispatcher (911) should be immediately notified. All injury or illness occurring as a result of work activities must be reported to the Workers' Compensation Office immediately after the incident occurs or after the injury is treated. All incidents of injurious chemical exposure, including disposition actions, should be reported to the WAU-DPS. Employees who suspect they require medical assistance due to chemical exposure shall inform their supervisor or the Hazard Communication Coordinator who will help the employee obtain the necessary examination and treatment.

The following information should be provided to the health care professional at the time that an employee is referred for medical consultation or examination:

- (a) Identity of the chemical(s) to which the employee may have been exposed.
- (b) Description of the conditions under which the exposure occurred, including any quantitative exposure data, if available.
- (a) A description of the signs and symptoms of exposure that the employee experienced, if any.