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HAZARD COMMUNICATION PROGRAM

Nearly every workplace contains chemicals which pose potential health problems to employees if exposure occurs in a concentration or in a manner not prescribed. The University of Pittsburgh recognizes its responsibility to provide all employees that are potentially exposed to hazardous chemicals with the necessary tools to protect themselves.

This University of Pittsburgh Hazard Communication Program has been developed and is administered by the Department of Environmental Health and Safety (EH&S). The purpose of this Program is to:

- Identify hazardous chemicals in the workplace
- Evaluate the potential hazards of chemicals to which employees may be exposed
- Communicate hazard information
- Identify protective measures for faculty, staff, and students
- Insure availability of Material Safety Data Sheets
- Educate employees

1. LISTS OF HAZARDOUS CHEMICALS IN THE WORKPLACE

At the University of Pittsburgh, individual work sites, laboratories or departments are responsible for maintaining chemical inventory lists of hazardous chemicals. Where possible, lists should be maintained on a computer database for ease of access and updating. Copies of the list must be available for the employee who may be potentially exposed to a hazardous chemical.

2. HAZARD EVALUATION

Chemical manufacturers and importers are required by OSHA to review available scientific evidence concerning the hazards of the chemicals they produce or import, and to report the information to employers who distribute or use their products. Downstream employers, such as the University of Pittsburgh, rely on those evaluations to determine the measures necessary to protect employees from potential hazards of any chemical.

3. LABELS AND OTHER FORMS OF WARNING

3.1 The University of Pittsburgh relies upon labeling provided by the manufacturer on newly purchased chemicals. It is the user department's responsibility to assure that each chemical container in the workplace is labeled or tagged. This label must contain the identity of the chemical, hazard warnings appropriate for employee protection, and the name and address of the manufacturer or other responsible party (includes distributors or importers). Employees shall not remove or deface existing labels on incoming containers of hazardous substances.

3.2 Employees are not required to label portable containers into which hazardous chemicals are transferred (aka secondary containers) provided that the employee who makes the transfer remains in attendance with the secondary container and uses all of the contents during the work shift. When the hazardous chemical might remain in the container for use at a later time or by another individual, it must be properly labeled with the chemical name.

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3.3 When a container is reused for another compatible hazardous chemical, the original label must be removed and the container relabeled to identify the new material. All containers should be labeled to identify their contents.

3.4 Fixed containers such as a storage tank must be labeled with the identity of the chemical it contains and the appropriate hazard warning. Alternative written identification systems for fixed containers may be implemented as long as they convey the same information.

3.5 The hazard warning can be any type of message, words, pictures, or symbols that provide general information regarding the hazards of the chemicals. Employees must be trained in the hazard warning system utilized. Widely accepted systems for hazard identification and labeling include;

ANSI Z129.1-2000: Hazardous Industrial Chemicals - Precautionary Labeling uses a word hierarchy, or **signal word** to convey levels of hazard. The three signal words are **DANGER, WARNING, and CAUTION**. The meaning of each signal word is provided below:

Signal Words for Chemical Hazards

SIGNAL WORD	GENERAL MEANING
DANGER!	If this product gets in or on you, immediate harm will be caused.
WARNING!	If this product gets in or on you, in sufficient quantity, you will suffer harm.
CAUTION!	If this product gets in or on you in large quantity over an extended time, you may be harmed.
The following is not a <u>SIGNAL</u> word, but does appear on a label to provide specific information.	
POISON! 	This product will make you ill if it enters your body by any route of entry.

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Hazardous Material Identification System (HMIS) provides a 0-4 scale (0=low, 4=high) for health, flammability, and reactivity hazards. The “mode of entry” and “protective equipment” are depicted by a letter referring to a system of protective equipment. There are a number of variations to this type of labeling. An example of an HMIS label is provided below.

HMIS Hazard Rating Label



NFPA 704 - Standard System for the Identification of the Hazards of Materials for Emergency Response provides the following hazard rating for the Health, Flammability, and Reactivity classifications of chemicals:

Health Hazard Rating (BLUE on label)

- 4 - Lethal
- 3 - Serious or permanent injury
- 2 - Temporary incapacitation or residual injury
- 1 - Significant irritation
- 0 - No Hazard

Flammability Hazard Rating (RED on label)

- 4 - Flash point below 73°F
- 3 - Flash point 73°F to 100°F
- 2 - Flash point 100°F to 200°F
- 1 - Flash point greater than 200°F
- 0 - Will not burn

Reactivity Hazard Rating (YELLOW on label)

- 4 - Capable of Detonation or Explosion
- 3 - Shock and heat may detonate

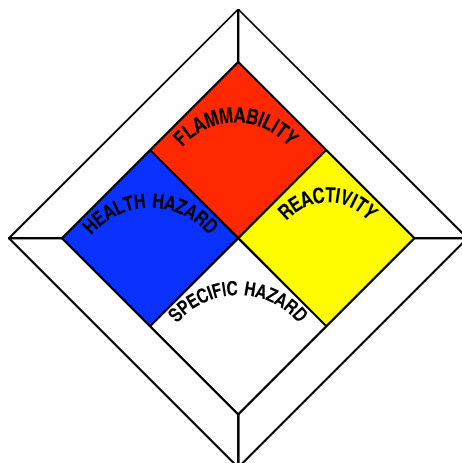
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- 2 - Violent chemical change under increased heat or pressure
- 1 - Unstable under increased heat or pressure
- 0 - Stable

Specific Hazards (WHITE on label)

- OX** - Oxidizer
- W** - Water Reactive (Use NO water)

NFPA Hazard Rating Symbol



4. MATERIAL SAFETY DATA SHEETS

4.1 A Material Safety Data Sheet (MSDS) is a document that provides information about the hazards of a chemical or product. State and Federal law requires that all chemical manufacturers, distributors and importers develop an MSDS for each hazardous chemical they produce or import, and provide the MSDS at the time of shipment to a chemical user, such as the University of Pittsburgh.

4.2 It is the responsibility of each manager or supervisor to maintain copies of or provide access to the MSDS for all hazardous chemicals used within their area. EH&S maintains a limited inventory of hard copy MSDS and provides these documents to managers and supervisors upon request. The primary method of accessing an MSDS at Pitt is through an electronic database. Links to these sites are available at www.ehs.pitt.edu. If you do not have access to an internet connection, you can request a copy of the MSDS for any chemical in your workplace through your supervisor, who can contact EH&S if necessary.

4.3 An MSDS provides the user with important information regarding the chemical they are about to use. The MSDS provides significantly more information than the container label.

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4.4 MSDS should be requested for all hazardous chemicals *prior* to use in the workplace. All employee's have the right to review an MSDS before working with a hazardous chemical, and at any time that the chemical is present in the workplace.

4.5 MSDS vary in style but are required to contain the following information:

- Identity of the material as used on the label
- Chemical name of hazardous ingredient(s) present at greater than 1%, OR 0.1% for carcinogenic substances
- Exposure Limit Values, i.e. Permissible Exposure Limit (PEL) set by OSHA or the Threshold Limit Value (TLV) established by the American Conference of Governmental Industrial Hygienists
- Physical and chemical properties
- Health hazards, including signs and symptoms of over exposure, and the individual health conditions that may be aggravated by exposure
- Primary routes of exposure
- Target organs
- Precautions for safe handling, including personal protective equipment
- Applicable control measures
- Emergency and first aid procedures
- Spill control or release mitigation actions
- Date
- Manufacturer's name, address, telephone and emergency contact information

5. EMPLOYEE INFORMATION AND TRAINING

5.1 Departments shall provide employees with information and training on hazardous chemicals used or stored in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area.

5.2 Departments shall furnish employees with an explanation of:

- Location of hazardous materials in the workplace.
- Methods and observations that may be used to detect the presence or release of hazardous chemicals in the work area.
- The physical and health hazards of the chemicals in the work area.
- The measures employees can take to protect themselves from these hazards.
- Location and availability of hazard communication information, such as this Program, site-specific chemical inventory list and MSDS.

5.3 EH&S includes general labeling and MSDS information as part of the Chemical Hygiene Training Program. This training is scheduled on a regular basis throughout the year and is posted on the EH&S website. Chemical Hygiene Training is from EH&S as an on-line module, and department or work site specific training can also be conducted by EH&S.

6. MEDICAL EMERGENCIES

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For medical emergencies on the Pittsburgh Campus, call 412-624-2121.

Under certain circumstances, the manufacturer may withhold the specific chemical identity and other specific identification of a hazardous substance from the MSDS. However, chemical manufacturers and importers are required by OSHA to immediately disclose the specific chemical identity of a hazardous chemical to a treating physician or nurse when the information is needed for proper emergency or first-aid treatment. In the event of a chemical-related medical emergency, call the emergency number for your campus and proceed to your campus' designated medical center for treatment.

7. NON-ROUTINE TASKS

The department head, supervisor, PI or designee shall provide any person required to perform a non-routine task with appropriate hazard communication training and sufficient time to review appropriate hazard information prior to initiation of the task. This information should include MSDS's, labels, and any other appropriate hazard information. All tasks involving hazardous chemicals that are being used for the first time, or are only rarely used shall be considered non-routine tasks.