

Hazard Communication Program

"Right to Know"

Lamar State College-Port Arthur

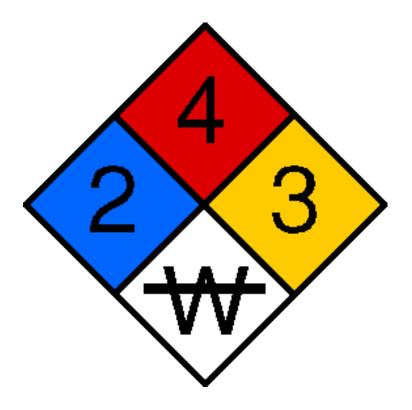


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LAMAR STATE COLLEGE-PORT ARTHUR HAZARD COMMUNICATION – "RIGHT TO KNOW" PROGRAM

I. <u>POLICY</u>

Lamar State College-Port Arthur will maintain an effective "Hazard Communication Program" in accordance with the current RMTSA Guidelines, Volume III, Section Two, Chapter 7.12: <u>Texas</u> <u>Health and Safety Code</u>, Chapter 502, Texas Hazard Communication Act; <u>OSHA</u>, 29 CFR 1910.1200 (e) (1). Ref: <u>www.sorm.state.tx.us/RMTSA_Guidelines/Volume_Three/2Chapter7/32712.php</u>.

II. <u>PURPOSE</u>

The above noted regulation sets forth "to ensure that the hazards of chemicals produced or imported by chemical manufacturers or importers are evaluated, and that information concerning their hazards is transmitted to affected employers and employees. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and personnel training."

This program as well as the regulation is otherwise referred to as the "Right to Know Law", which in effect is designed to provide knowledge, warning, protection and training to employees who may be exposed to hazards of chemicals and other materials.

III. <u>RESPONSIBILITY</u>

- A. Hazard Communication Program Administrator (HCPA) shall be designated and will have the responsibility for the "Hazard Communication Program."
 - a. HCPA will be responsible for the initiation of the program.
 - b. HCPA will be responsible for the annual update of the program.
- B. Departmental Hazard Communication Coordinators (DHCC) will be appointed and report information regarding the Hazard Communication Program in their respective departments to the Hazard Communication Program Administrator. DHCCs will be responsible for the following:
 - a. To provide an initial list of potentially hazardous materials/chemicals and electronic copies of MSDSs of potentially hazardous materials/chemicals on the list.
 - b. To make sure all chemicals are labels with the minimum of the following:
 - i. Chemical name
 - ii. Any specific warning or other hazard information
 - iii. Identification of the manufacturer or supplier and address.
 - c. Provide an updated list annually and any changes during the year to the Hazard Communication Program Administrator.

- d. The dissemination of safety information for handling and disposing of potentially hazardous chemicals or materials to the persons responsible or who oversee the use of the potentially hazardous chemicals or materials.
- C. All personnel (faculty, staff, technical assistants and certain matriculating students) will fully participate in the program as it may apply to their work area and work responsibility.
- D. The "Hazard Communication Program" will consist of five basic components:
 - a. Inventory and audit of hazardous chemicals and materials.
 - b. Labels and labeling of hazardous chemicals and materials containers.
 - c. Material safety data sheets (MSDS) maintenance, distribution, availability and locations.
 - d. Personnel training and information, general and specific.
 - e. A written "Hazard Communication Program" as herewith prescribed.
- E. The written "Hazard Communication Program" for each department with its associated inventory list, records, materials, etc., will be maintained, located and accessible in the Hazard Communication Program Binder in the department.

IV. MATERIALS, INVENTORY, AUDITS

- A. An initial inventory of all chemicals and materials will be made of all work areas and facilities that house potentially hazardous materials or chemicals. An annual audit will be conducted thereafter. All hazardous chemicals and materials required will be identified and listed. A copy of the listing for each work area will be kept with the MSDSs for that area (or in a secure location if the MSDSs are in the public areas) and all the lists compiled to make a master list for the department will be kept in the Hazard Communication Program Binder. Each listing will note at least the following information (see inventory template):
 - a. Name and contact information for persons responsible for the area or chemicals
 - b. Date the list was compiled or updated
 - c. Room/building location of the work or storage area
 - d. Chemical or product common name and manufacturer
 - e. Typical maximum quantity of the chemical or material (volume, mass or weight)
 - f. General location within the work area where material is kept (storage cabinet, shelves, etc)
 - g. Hazard Type (See MSDS or <u>http://chemlabs.uoregon.edu/Safety/NFPA.html</u>)
- B. Additions of new potentially hazardous materials or chemicals must be reported to the supervisor and then to the HCPA. Typically the person responsible for material will update the list for the specific work area and ensure that the master list is updated by forwarding the changes and an electronic copy of the MSDS to the HCPA or appointee via the Work Order Request located at <u>http://www.lamarpa.edu/dept/pp/forms/workorder.aspx</u>. The HCPA or appointee will forward the information to the webmaster for MSDS list on the website and a copy will be filed in the master Hazard Communication Program Binder, Section 1 in the

Physical Plant Resource Library.

V. MATERIAL SAFETY DATA SHEETS (MSDS)

- A. An MSDS will be provided on all required chemicals and materials used within the department located in Section 4 of the Hazard Communication Program Binder.
- B. A Master MSDS File will be located at http://www.lamarpa.edu/?url=/dept/pp/msds/index.html. A master list of chemicals and materials will be located in the Resource Library at the Physical Plant.
- C. An MSDS with associated inventory on all required chemicals and materials used in a specific work area or for a specific work assignment will be available to personnel during their work period in the Hazard Communication Program Binder. Such locations will be as follows:
 - a. Automotive Mechanics, Lab
 - b. Allied Health Lab
 - c. Armory
 - d. Biology Lab, Education Annex
 - e. Carl Parker Multipurpose Center
 - f. Cosmetology
 - g. Cosmetology Annex
 - h. Paint Shop
 - i. Housekeeping Campus-wide
 - j. Grounds Maintenance
 - k. Physical Plant, Mechanic Shop

A complete list can be accessed in the Appendix.

- D. The original inventory listing and audits will be used to ascertain that there is an MSDS as may be required for each chemical or material item and that all containers are properly labeled and stored.
- E. In the event an MSDS is not available or should a new chemical or material be introduced for use without a required MSDS, the immediate supervisor should be promptly notified. That supervisor will contact the responsible DHCC to see that the matter is corrected. MSDS electronic files will be forwarded to the Physical Plant via the Work Order system http://www.lamarpa.edu/dept/pp/forms/workorder.aspx throughout the year for items added for master list update. New chemicals should be added to the list in Section I Hazardous Chemical Inventory in the Hazard Communication Program Binder for that department along with a hard copy of the MSDS for the new chemical.

VI. LABELS AND LABELING

- A. All hazardous chemicals or materials on hand or received must have a label that will specify at least:
 - a. The chemical name.
 - b. Any specific warning or other hazard information.
 - c. Identification of the manufacturer or supplier and address.
- B. A hazardous chemical or material label will not be removed from its container, nor will such a label be defaced.
- C. Should it become necessary for a label to either be introduced by the department or replaced on a hazardous chemical or material container, such a label will display the information noted in Paragraph A above. The department label will follow the National Fire Protection Association (NFPA) Hazard Identification System located at <u>http://chemlabs.uoregon.edu/Safety/NFPA.html.</u> All containers of hazardous chemicals or materials will be received, and the label assured to be affixed on each and all containers by qualified/trained staff, faculty, graduate and undergraduate Students.
- D. It will be the responsibility of each DHCC to ensure that all secondary containers are properly labeled with a duplicate of the manufacturer's label or a department's label as noted in Part VI (A) and (C) above.

VII. INFORMATION AND TRAINING

- A. All personnel will be informed of the "Hazard Communication Program"/"Right to Know Law" annually, and/or at time of initial assignment and annually thereafter.
- B. Personnel will sign a form or list that they attended a general or specific training session indicating they received any written material, understood the department's policy on Hazard Communication or received any technical or specific training relative to hazardous chemicals or materials.
- C. General program information and training will be accomplished by lecture, photo slides, movie, video, literature, or combination, and will cover the contents of this program to include a review of the following:
 - a. Department's policy statement (see Part I).
 - b. The basic definition of the regulation (see Part II).Statements of responsibility, both program and personnel (see Part III).
 - c. Information relating to labels and general warning signs, used by LSC-PA (see Part VI).
 - d. Description of MSDS and how to read, all sections.
 - e. Location and availability of the written hazard communication program, MSDS's master and locations, and chemical listing (see Part V).

- f. Definition of hazardous chemicals or materials:
 - i. Hazardous chemicals
 - ii. Health hazard
 - iii. Physical hazard
 - iv. Protective Gear Required
- g. Steps that department personnel can take to lessen or prevent exposure to hazardous chemicals or materials, i.e., knowledge of chemicals, storage, posting, personal protective equipment, chemical loads, warnings, eye wash and safety showers, training, etc.
- h. Methods and observation techniques use to determine the presence or release of hazardous chemicals or materials in a work area, i.e., flame or fire, smell or odor, fumes, etching, color, irritation, etc.
- i. The emergency procedure to take in the event there is exposure to a hazardous chemical.
- j. Notice of hazardous chemicals or materials in an individual's work area.

VIII <u>NON-ROUTINE WORK OR TASKS</u>

- A. Periodically, departmental personnel may be required to perform non-routine work or tasks which will require the use of hazardous chemicals, materials or work in associated hazardous locations. The HCPA will be informed about and prior to starting such projects.
- B. As needed the DHCC or the Safety Office will complete (or arrange) a hazard analysis of the task and ensure that each affected individual is given information about the chemicals, materials, or exposure of such activity. Such information shall include:
 - a. Specific hazards that may be associated with the chemical or material.
 - b. Protective and other safety measures to be taken.
 - c. Measures the department is taking to lessen or prevent hazards, i.e., ventilation, respirators, storage, safety watch personnel, postings and barriers, fire extinguishers, other personal protective equipment, etc.
 - d. Review of the chemical or material, MSDS or other technical information applicable to the work.
 - e. Review emergency procedures to be taken.

IX. INFORMING CONTRACTORS

- A. It will be responsibility of the HCPA to provide contractors working in departmental areas with the following information:
 - a. Any hazardous chemicals to which they may be exposed while on the site.
 - b. Precautions and controls to be taken to lessen or prevent possible exposure by use of appropriate protective measures.

B. HCPA will also be responsible for contacting each and all contractors before work is started to gather and disseminate any information concerning chemical hazards that the contractor may be bringing onto the worksite.

X. PROGRAM MAINTENANCE - OTHER FUNCTIONS

- A. Purchasing/MSDS Supply: A boiler plate statement will be applied to all purchase orders on request in order to obtain applicable MSDS on all required chemicals or materials.
 "Suppliers must furnish a "Material Safety Data Sheet" applicable to any item on this purchase request."
- B. Other supplied chemicals or materials: No chemical or material requiring a MSDS will be introduced into the department or any work area of the department by petty cash purchase, supplier samples or other means without the knowledge of the HCPA.

Departmental Hazard Communication Coordinator Hazard Communication Program Administrator

Date

Date

- Campus locations for Hazard Communications Program locations
- NFPA Hazard Identification System
 - o http://chemlabs.uoregon.edu/Safety/NFPA.html
- Hazardous Chemical Inventory Form
 - o http://www.lamarpa.edu/?url=/dept/pp/index.html
- Waste Management Contractors
- Personal Protection Equipment List

Hazard Communications Program Binder Locations

- 1. Automotive Mechanics, Lab
- 2. Allied Health Lab
- 3. Armory
- 4. Biology Lab, Education Annex
- 5. Carl Parker Multipurpose Center
- 6. Cosmetology
- 7. Cosmetology Annex
- 8. Paint Shop
- 9. Housekeeping Campus-wide
- 10. Grounds Maintenance
- 11. Physical Plant, Mechanic Shop

National Fire Protection Agency Identification System

I. NFPA 704 Hazard Identification System

The National Fire Protection Agency (NFPA), in section 704 of the National Fire Code, specifies a system for identifying the hazards associated with materials. Information contained on this and linked pages comes directly from the 1990 edition of NFPA 704. Although the system was developed primarily with the needs of fire protection agencies in mind, it is of value to anyone, including someone enrolled in a chemistry laboratory course, who needs to handle potentially hazardous material.

The hazard identification signal is a color-coded array of four numbers or letters arranged in a diamond shape. An example is shown below. You will see hazard diamonds like this on trucks, storage tanks, bottles of chemicals, and in various other places around campus and around town. The blue, red, and yellow fields (health, flammability, and reactivity) all use a numbering scale ranging from 0 to 4. A value of zero means that the material poses essentially no hazard; a rating of four indicates extreme danger. The fourth value (associated with white) tends to be more variable, both in meaning and in what letters or numbers are written there. Please note that in the introductory chemistry labs at the University of Oregon, we do not use the NFPA-specified symbols in the white field. Instead, we use an <u>alternative set of symbols</u> that indicate the kind of protective gear that should be used when handling the material. These alternative symbols are drawn from the <u>HMIG</u> system, which <u>differs somewhat</u> from the NFPA system. (Reference Website: http://chemlabs.uoregon.edu/Safety/NFPA.html



II. NFPA Hazard Identification System

Flammability

Susceptibility of Material to Burning.



A note about the word <u>inflammable</u>:

Inflammable means the material **will** burn. Think of "inflammation" -- if you have an inflamed wound, it is red and hot to the touch. As recently as about 15 years ago, trucks and containers were marked "inflammable" if they contained material that could burn (material that won't burn is called non-inflammable). The problem was that many people assumed inflammable meant that a material would *not* burn -- a potentially deadly mistake. Today, the word "flammable" has replaced "inflammable" almost entirely, but don't be confused if you encounter the older term.

0	Material will not burn.	Example: water
1	Material must be pre-heated before ignition can occur.	Example: corn oil
2	Material must be moderately heated or exposed to relatively high ambient temperature before ignition can occur.	Example: diesel fuel oil
3	Liquids and solids that can be ignited under almost all ambient temperature conditions.	Example: gasoline
4	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or that are readily dispersed in air and that will burn readily.	Example: propane gas

III. NFPA Hazard Identification System

Health Hazard

Type of Possible Injury.

(Blue)

A discussion of health hazards and the terminology used to describe them is given in <u>Appendix A</u> of the OSHA Hazard Communication Standard (29 CFR 1910.1200 App A).

0	Material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.	Example: peanut oil
1	Material that on exposure would cause irritation but only minor residual Example: injury.	
2	Material that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	Example: ammonia gas
3	Material that on short exposure could cause serious temporary or residual injury.	Example: chlorine gas
4	Material that on very short exposure could cause death or major residual injury.	Example: hydrogen cyanide

IV. NFPA Hazard Identification System

Reactivity Susceptibility of Material to Burning.

(Yellow)

0	Material that in itself is normally stable, even under fire exposure conditions, and is not reactive with water.Example: liqui nitrogen	
1	Material that in itself is normally stable, but which can become unstable at elevated temperatures and pressures.Example: phosphorus (red or white)	
2	Material that readily undergoes violent chemical change at elevated temperatures and pressures or which reacts violently with water orExample: calcium metalwhich may form explosive mixtures with water.Example: calcium metal	
3	Material that in itself is capable of detonation or explosive decomposition or reaction but requires a strong initiating source or which must be heated under confinement before initiation or which reacts explosively with water.Example: fluorine gas	
4	Material that in itself is readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.	Example: trinitrotoluene (TNT)

V. <u>NFPA Hazard Identification System</u> **Special Precautions Protective Gear Required** (White)

Special Precautions

The fourth white field of the hazard signal can have variable content, depending on who prepared the signal. The 1990 edition of the National Fire Codes (section 704, chapter 5) specifies only two symbols. Additional symbols are commonly included. The field may also be left blank if no special hazards are present.

Protective Gear Required

An alternative set of symbols from the Lab Safety Supply Inc. <u>HMIG labeling system</u> is used in the introductory chemistry laboratory at the University of Oregon. These symbols indicate the type(s) of protective equipment that must be used whenever the material in question is handled. The symbols are the letters A - K and X, with 'A' indicating that goggles must be worn, and successive letters indicating progressively greater amounts of protective gear. A full description of the <u>symbols used</u> is found on posters placed at various points around the lab.

Symbols specified in National Fire Codes, section 704				
₩	Material shows unusual reactivity with water (i.e. don't put water on it).	Example: magnesium metal		
OX	Material possesses oxidizing properties.	Example: ammonium nitrate (fertilizer used in Oklahoma City bomb)		
Other symbols commonly used				
ACID	Material is an acid.			
ALK	Material is a base (alkaline).			
COR	Material is corrosive.			
	Material is radioactive.			