

#### ENVIRONMENTAL HEALTH AND SAFETY STANDARD OPERATING PROCEDURES

# SOP No. 24.01.01.W1.03AR Hazardous Materials Labeling, Handling, and Segregation Procedure

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Environmental Health and Safety at WTAMU is composed of two distinct but integrated environmental safety departments that report to the Vice President of Research and Compliance. Academic and Research Environmental Health and Safety (AR-EHS) is responsible for research and academic related compliance, which includes laboratory and academic research and the associated compliance committees. Fire and Life Safety (FLS-EHS) is responsible for fire related compliance and conducts fire and life safety inspections of campus buildings and assists with the testing all fire detection and suppression systems.

# Supplements <u>TAMUS Regulation 24.01.01</u>

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#### 1. Purpose

To establish a program for labeling containers of hazardous material. This procedure provides personnel the information necessary to alert them to the potential health hazards to which they may be exposed under normal conditions of use or in a foreseeable emergency.

#### 2. Scope

This procedure applies to all organizations at West Texas A & M University (WTAMU). It addresses the materials that are required to be labeled and procedures for creating, applying, and maintaining WTAMU Hazard Warning Labels on chemical containers, including gas cylinders.

#### Environmental Health and Safety shall

- Administer the WTAMU Hazardous Materials Labeling Procedure with qualified/trained personnel.
- > Assist departments and employees with the following:
  - Supplying Safety Data Sheets (SDSs) formally known as Material Safety Data Sheets (MSDS).
  - Coordinating with the chemical manufacturers to obtain the appropriate labeling information for all chemical substances.
  - Providing labels, as needed, for newly received chemical containers.
  - Providing replacement labels to appropriate faculty and staff on request; to replace old, defaced, or unreadable labels.
  - Providing updated labels or changes to label information.

#### Department/Components shall

- > Comply with the WTAMU Hazardous Materials Labeling Procedure.
- > Ensure employees are properly trained.
- ➤ Assist employees with the following.
  - Supplying SDSs.
  - Coordinate with EHS to obtain the appropriate labeling information for all chemical substances.
  - Provide labels, as needed, for newly received chemical containers.

- Provide replacement labels to appropriate faculty and staff on request; to replace old, defaced, or unreadable labels.
- Provide updated labels or changes to label information.

Employees and students shall

- > Comply with the written WTAMU EHS Hazardous Waste Management Program.
- Ensure that all containers used are properly labeled prior to use. The only exception is for containers used for **immediate** use by one individual, see below for the exact requirements.

NOTE: Items that are exempted from labeling under this procedure, due to their being labeled under a different law, may not be exempted from the other provisions of EHS. EHS Hazardous Materials and Hazardous Waste Identification Procedure. For example, pesticides are not re-labeled, but the requirement to maintain a Safety Data Sheet (SDS) and train workers on the hazards, does not change. See Appendix C & D.

Excluded from the labeling requirements of this procedure are the following items.

- Any pesticide that is subject to the labeling requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.).
- Any food item, food additive, color additive, drug, cosmetic, medical, or veterinary device that is subject to labeling requirements of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), or drug that is in its solid final form for direct administration to patients (such as pills or tablets).
- Any hazardous waste as defined by the Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA).
- > Tobacco or tobacco products.
- Wood or wood products unless treated with a hazardous chemical or used in such a manner as to generate wood dust by sawing, sanding, or other form of manipulation.
- > Articles (defined in section 5 of this document).
- Any consumer product or hazardous substance (as those terms are defined in the Consumer Product Safety Act and the Federal Hazardous Substances Act, respectively) where the use of that product or substance in the workplace is in the same manner as normal consumer use, and which use results in a duration and frequency of exposure which is not greater than exposures experienced by consumers.
- Radioactive source materials, special nuclear material, or byproduct material as defined in the Atomic Energy Act of 1954, as amended (42 USCS §§ 2011 et seq.), and regulations issued by the Atomic Energy Commission, as controlled under the 10 CFR series of regulations.
- Biological materials.

#### 3. Procedures

3.1 Primary User Responsibilities.

Provide the necessary labeling, segregation, and handling training to all subordinate secondary users.

Request a manufacturer's or importer's SDS for all requisitioned chemical substances. And if necessary provides EHS with a copy of the SDS.

Receives and reviews the manufacturer's or importer's SDS to identify the potential hazards of the material being requisitioned.

Determines hazards based on the manufacturer's or importer's SDS and appropriate additional sources. (Assistance can be obtained from EHS.)

Assign hazard codes to chemicals according to the guidance given on the Hazard Communication Program Visual Aid as shown in Appendix A.

- (a) Evaluations are made for the categories of "Health," "Flammability," "Reactivity," and "Compatibility."
- (b) Codes are assigned on a scale of 0 to 4 (1 to 4 for Health Category); 0 being the least hazardous and 4 being the most hazardous.
- (c) Health category evaluations are based on the accepted exposure limits for the given substance as published either by the American Conference of Governmental Industrial Hygienists (ACGIH) or the Occupational Safety and Health Administration (OSHA), as well as toxicological information from the SDS or other valid scientific sources.
- (d) Flammability category evaluations are based on the manufacturer's or importer's reported flashpoint for a liquid substance and on flammability/firefighting information in the SDS for solid substances.
- (e) Reactivity category evaluations are based on the reactivity data on the SDS regarding the material's stability or explosive potential.

Determine the form of the substance, solid, liquid, gas, or plasma (gel).

Determine any other special information needed to adequately forewarn secondary uses of the hazards of the material. This may include, but is not limited to,

- (a) Carcinogenic potential.
- (b) Possible reproductive effects.
- (c) Acidity or corrosivity.
- (d) Hazardous polymerization potential.
- (e) Irritant properties when in contact with skin.
- (f) Potential to cause sensitization in exposed individuals.

NOTE: When WTAMU Hazard Warning Labels are produced for items that are transported off-site, the WTAMU Hazard Warning Label does not take the place of or conflict with the labeling requirements of the Department of Transportation.

Provides information for the WTAMU Hazard Warning Label as follows.

- (a) Name As it appears on the SDS. (NO abbreviations or chemical formulas.)
- (b) Health In the blue section of the label; numerically, 1 to 4.
- (c) Flammability In the red section of the label; numerically, 0 to 4.
- (d) Reactivity In the yellow section of the label; numerically, 0 to 4.
- (e) Special Information Additional codes to cover other possible hazards of the material.

(f) Compatibility Code - An alphabetical character code, A through F, and X, that identifies the storage compatibility class of the substance. See Appendix B. (Applies to storage of unused or partial lots of a given substance and not to waste handling procedures.)

Provide appropriate faculty and staff with the data and update format required for maintenance of their chemical inventory. This includes ensuring the Department has a current list of hazardous materials and SDS.

#### 3.1. Department

Requests SDS's for all chemicals purchased.

Coordinates with EHS to obtain the appropriate labeling information for all chemical substances.

Makes and applies labels, as needed, for newly received chemical containers.

Provides replacement labels to appropriate faculty and staff on request and replaces old, defaced, or unreadable labels.

Prepares and distributes updated labels, EHS updates or changes label information on chemical hazards that are already in use.

Assures all users of a material are trained on the use of the WTAMU Hazardous Warning Labeling System and Right to Know program including the following.

- Segregation of stored materials according to the compatibility groups listed in appendix B.
- Appropriate spill prevention.
- Understanding spill cleanup and reporting procedures.
- Obtaining appropriate spill control and recognizing reportable quantities.
- Replacing labels when a label is missing, defaced, destroyed, for any reason unreadable, or when informed that the labeling information has changed.
- Referring any question on proper storage, handling, use, disposal, or protective measures having to do with a hazardous chemical to EHS Department.
- Observing the WTAMU Hazard Warning Label to determine the hazards associated with use of the substance.
- Making every effort to prevent the WTAMU Hazard Warning Label from being removed, defaced, destroyed, or otherwise rendered unusable or unreadable.
- Transferring chemicals from the manufacturer's original container.
  - (a) For partial lot use Duplicate of a copy of the original WTAMU Hazard Warning Label is produced and affixed to the partial lot container. (This label may be machine or hand-produced.)
  - (b) For immediate use Labels are not required using the WTAMU Hazard Warning Label.

- (c) Work center use Designates work area and label area with the types of chemicals being used and their corresponding WTAMU Hazard Warning Label.
- Referring to WTAMU Empty Container Procedure 24.01.01.W1.07AR for disposal of a labeled container through disposal, recycling, restocking, or transfer to another work center.
  - (a) When label information is updated, a new label is produced. This new label must be affixed to the container.
  - (b) Hazardous chemical substances are transferred between work centers only after being properly contained in a DOT approved container with the proper labeling.
- Disposing of all empty containers according to WTAMU standard 24.01.01.W1.03AR, or call EHS department for instructions.

# 3.2. Campus Community

Receive training on the WTAMU Hazardous Materials Handling, Segregation, and Labeling Procedure.

Recognize labeled hazards.

Report incompatible hazardous material situations, spills, or potential spills to EHS.

## 4. Definitions

*Acidity:* The characteristic of having a pH that is less than 7.

*Article:* A manufactured item which:

- > Is formed to a specific shape or design during manufacture.
- Has end-use function(s) dependent in whole or in part upon its shape or design during end-use.
- Under normal conditions of use does not release more than very small quantities of a hazardous chemical.
- > Does not pose a physical hazard or health risk to employees.

*Carcinogen:* Any substance or agent that produces or incites cancer.

*Container:* Any bag, barrel, bottle, box, can, cylinder, drum, or like item that contains a hazardous chemical.

*Corrosivity:* The characteristic of causing visible destruction of, or irreversible alteration in, living tissue by chemical action at the site of contact.

*Exposure or Exposed:* An employee who is subjected to a hazardous chemical in the course of employment through any route of entry (such as inhalation, ingestion, skin contact, or absorption).

Hazardous Chemical: Any chemical that is a physical or a health hazard.

*Hazardous Polymerization:* The characteristic of a given substance to spontaneously change from one form to another, to combine with another substance to form a new compound that has the characteristic of being hazardous, or to liberate a hazardous substance in the process of changing.

*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. The term "health hazard" includes

- > Chemicals which are toxic or highly toxic agents.
- Reproductive toxins.
- Irritants.
- Corrosives.
- Sensitizers.
- ➢ Cancer-causing agents.
- > Agents which act on the blood-forming tissues.
- Agents which damage the liver, kidneys, nervous system, lungs, skin, eyes, or mucous membranes.

*Immediate Use:* A situation in which a hazardous material is under the control of and used by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

*Partial Lot Use:* A situation in which a hazardous chemical is transferred from the original container for any use which may exceed the work shift in which it is transferred or it is out of the immediate control of the person who transferred it to the secondary container.

**Plasma:** The form of a substance that is neither clearly a solid nor a liquid, but is more of a gellike substance. Although this does not fit the scientific definition of a plasma, it is used because it affords a distinctly separate letter-identifier for the hazard-warning label from the "G" for gas (versus "G" for gel), and it describes a recognizable formin which the substance might be found.

**Primary User:** Person responsible for the acquisition, purchasing, and primary use of a material.

*Produce:* To manufacture, process, formulate, or repackage.

Secondary User: Uses a chemical under instruction, or as a subordinate to, a primary user.

*Sensitization:* A phenomenon whereby exposed people or animals develop an allergic reaction in normal tissue after repeated exposure to a given chemical or substance.

*Work center:* Area in which multiple chemicals are being used at the same time, this area should be marked off and labeled with the chemicals being used, and their corresponding WTAMU Hazardous Materials Warning Label

*WTAMU Hazard Warning Label:* The computer generated graphic material affixed to containers of hazardous chemicals. It is diamond and contains five blocks for information: Name, Health, Flammability, Reactivity, and Special Information.

#### 5. References

- ➢ Governing Documents: OSHA Employee Right to Know.
- Authorizing Documents: Texas A&M University System Environmental Health and Safety Standards 24.02.03.EHS-01 to EHS-19.

# 6. Record Retention

No official state records may be destroyed without permission from the Texas State Library as outlined in <u>Texas Government Code</u>, <u>Section 441.187</u> and <u>13 Texas Administrative Code</u>, <u>Title 13</u>, <u>Part 1, Chapter 6, Subchapter A, Rule 6.7</u>. The Texas State Library certifies Agency retention schedules as a means of granting permission to destroy official state records.

West Texas A & M University Records Retention Schedule is certified by the Texas State Library and Archives Commission. West Texas A & M University Environmental Health and Safety will follow <u>Texas A & M University Records Retention Schedule</u> as stated in the Standard Operating Procedure <u>61.99.01.W0.01 Records Management</u>. All official state records (paper, microform, electronic, or any other media) must be retained for the minimum period designated.

# 7. Training

West Texas A & M University Environmental Health and Safety will follow the Texas A & M University System Policy <u>33.05.02 Required Employee Training</u>. Staff and faculty whose required training is delinquent more than 90 days will have their access to the Internet terminated until all trainings are completed. Only Blackboard and Single Sign-on will be accessible. Internet access will be restored once training has been completed. Student workers whose required training is delinquent more than 90 days will need to be terminated by their manager through Student Employment.

#### **Related Statutes, Policies, or Requirements**

#### **Contact Office**

WTAMU Environmental Health and Safety (806) 651-2270



## **Chemical Compatibility List**

#### NOTES

1. ONLY CHEMICALS WITHIN THE SAME GROUP MAY BE STORED TOGETHER.

2. ALL CHEMICALS, REGARDLESS OF GROUP, WITH A FLAMMABILITY OF "2" OR GREATER MUST BE STORED IN A FLAMMABLE CABINET.

3. SEPARATE CHEMICALS IN LIQUID FORM FROM CHEMICALS IN SOLID FORM.

4. CHECK SPECIFIC CHEMICAL SDS FOR ADDITIONAL COMPATIBILITY INFORMATION.



# **Compatible Storage Group Classification System** Should be used in conjunction with specific storage conditions taken from the manufacturer's label and MSDS/SDS.

#### **CAUTION**

THIS CHART IS INTENDED ONLY AS A GUIDELINE FOR CHEMICAL STORAGE: IT DOES NOT ACCOUNT FOR THE VARIOUS POSSIBLE CHEMICAL REACTIONS OBTAINED BY MIXING CHEMICALS TOGETHER. If' THERE ARE ANY QUESTIONS, PLEASE CONTACT ENVIRONMENTAL HEALTH AND SAFETY 651-2270.

#### Examples of Materials Exempted from the Hazard Communication Program

The Federal Hazard Communication Standard, 29 CFR 1910.1200, states:

- (6) This section (of the law) does not apply to:
  - I. Any hazardous waste as such term is defined by the Solid Waste Disposal Act..., when subject to regulations issued under that Act by the Environmental Protection Agency.
  - II. Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)..., when subject to regulations issued under that Act by the Environmental Protection Agency.
  - III. Tobacco or tobacco products.
  - IV. Wood or wood products, including lumber which is not processed ,...that theonly hazard they pose to employees is the potential of flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this procedure, and wood which may be consequently sawed or cut, generating dust, are not exempted).
  - V. Articles such as toner cartridges, Sharpie pens, Kimwipes, ammunition, thermometers. (see definition in Section 5 of this procedure).
  - VI. Food or alcoholic beverages which are sold, used, or prepared in retail establishments, and foods intended for personal consumption by employees while in the workplace.
  - VII. Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act..., when it is in its solid, final form for administration to the patient (e.g., tablets or pills); drugs which are packaged for sale to consumers (over-the-counter drugs); and drugs intended to personal consumption by employees while in the workplace (e.g., first-aid kit medications).
  - VIII. Cosmetics which are packaged for sale to consumers, and cosmetics intended for personal consumption by employees while in the workplace. (such as handlotion, Cutex, Ponds, Jergens)
  - IX. Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act and the Hazardous Substances Act, respectively, where it is used in the workplace for the purpose intended, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended.
  - X. Nuisance particulates that do not pose any physical or health hazard.
  - XI. Ionizing and non-ionizing radiation.
  - XII. Biological hazards.
  - XIII. Household cleaners (such as Windex, Glass Cleaner, Bon-Ami, Joy dish soap, laundry detergent).
  - XIV. Common Consumer Items (such as Kiwi Shoe Polish, Desenex, Car Wax).
  - XV. Common Office Items (such as White-out, Stamp Pad ink, Glue Sticks).
  - XVI. Non-hazardous items (such as bathroom deodorizer, Marker Board cleaner, premoistened wipes).

Any questions regarding the inclusion or deletion of items from the Hazard Communication Program are discussed directly with Environmental Health and Safety 651-2270.

#### Materials Exempted from Labeling Only Under the WTAMU Hazard Communication Program

The Federal Hazard Communication Standard, 29 CFR 1910.1200, states:

- (5) This Section (law) does not require labeling of the following chemicals:
  - I. Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), when subject to labeling requirements under that Act by the Environmental Protection Agency.

With this in mind, and considering the spectrum of items that are exempted from the program altogether as discussed in Appendix C of this procedure, pesticides are required to have a SDS on file and be readily available to the worker in the workplace, and that may require training under the Federal Law, but they do not require relabeling at WTAMU under these provisions.

If a container is not intended for immediate use it must be labeled with either an original manufacturer's label or equivalent label that is DOT approved.

Pesticides as defined in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), which basically states that any substance that is used or designed to be used to control unwanted pests or plants, is a pesticide. This may include insecticides, herbicides, fungicides, rodenticides, algaecides, and so on. The language of the law is intentionally broad to encompass all possible substances that may be used to kill unwanted organisms.