



NORTH CAROLINA Office of  
*State Human Resources*

## OFFICE OF STATE HUMAN RESOURCES

**NUMBER:** HCP-1

**TOTAL PAGES:** 20

**SUBJECT:** Hazard Communication Program

**Effective Date:**

**Revision Date:**

**Revision #:**

### **RELATED LEGISLATION:**

North Carolina Occupational Safety and Health Standards for General Industry, 29 CFR 1910.1200 and 29 CFR 1910 Subpart Z.

### **I. Introduction**

The [Agency/University] is firmly committed to providing all of its employees with a safe and healthy work environment. It is a matter of [Agency/University] policy to provide our employees with information about hazardous chemicals on the worksite through the Hazard Communication Program, which includes container labeling, Safety Data Sheets, (SDS) and employee information and training.

The [Agency/University] Safety Director will have the overall responsibility for coordinating the Hazard Communication Program for the [Agency/University]. Directors, managers and supervisors will make the written Hazard Communication Program available upon request to: employees, their designated representatives, Assistant Secretary of Labor for Occupational Safety and Health, and the Director of the National Institute for Occupational Safety and Health.

### **II. OSHA**

1. The [Agency/University] has the responsibility to comply with OSHA's Hazard Communication Standard. This Standard has four (4) points that must be adhered to:
  - Develop a list of chemicals and a written program to explain how [Agency/University] will comply with the act.
  - Label all containers that contain hazardous materials.

- Keep Material Safety Data Sheets (MSDS) and Safety Data Sheets (SDS) on file and available on request.
  - Implement a training program to ensure that all employees are familiar with the purpose of the act and the hazardous materials in the work place.
    1. A complete program will be available for review in the [Agency/University] Safety Office] and at each individual location.
    2. All chemicals brought on job sites must be accompanied by an SDS and filed in the Hazardous Communications binder. Always ask the supplier for an SDS. Additional SDSs are available from the [Agency/University] Safety Office.
    3. Supervisors, managers and directors are responsible for training new hires about hazardous materials and to ensure that new hires receive a copy of the training guide. The training guide will be signed and dated by you and the employee. One copy will be kept at the Safety Office in the training records. The employee will also keep a copy.
2. Hazard Communication Standard Final Rule:
- New changes to the Occupational Safety and Health Administration’s (OSHA) Hazard Communication Standard are bringing the United States into alignment with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), further improving safety and health protections for America’s workers. Building on the success of OSHA’s current Hazard Communication Standard, the GHS is expected to prevent injuries and illnesses, save lives and improve trade conditions for chemical manufacturers. The Hazard Communication Standard in 1983 gave the workers the ‘right to know’, but the new Globally Harmonized System gives workers the ‘right to understand’.
  - The new Hazard Communication Standard still requires chemical manufacturers and importers to evaluate the chemicals they produce or import and provide hazard information to employers and workers by putting labels on containers and preparing safety data sheets. However, the old standard allowed chemical manufacturers and importers to convey hazard information on labels and material safety data sheets in whatever format they chose. The modified standard provides a single set of harmonized criteria for classifying chemicals according to their health and physical hazards and specifies hazard communication elements for labeling and safety data sheets.
3. Four Major Changes to the Hazard Communication Standard:
- Hazard classification: Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import. Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.
  - Labels: Chemical manufacturers and importers must provide a label that includes a signal word, pictogram, hazard statement, and precautionary statement for each hazard class and category.

- **Safety Data Sheets:** The new format requires sixteen (16) specific sections, ensuring consistency in presentation of important protection information.
- **Information and training:** To facilitate understanding of the new system, the new standard requires that workers be trained by December 1, 2013 on the new label elements and safety data sheet format, in addition to the current training requirements.

**4. What You Need to do and When:**

- **Chemical users:** Continue to update safety data sheets when new ones become available, provide training on the new label elements and update hazard communication programs if new hazards are identified.
- **Chemical producers:** Review hazard information for all chemicals produced or imported, classify chemicals according to the new classification criteria, and update labels and safety data sheets.
- **OSHA is requiring that employees are trained on the new label elements (e.g., pictograms and signal words) and SDS format by December 2013, while full compliance with the final rule will begin in 2015.** While many countries are in various stages of implementing the GHS, OSHA believes that it is possible that American workplaces may begin to receive labels and SDSs that are consistent with the GHS shortly after publication. Thus, making it important to ensure that when employees begin to see the new labels and SDSs in their workplaces, they will be familiar with how to access the information effectively.

**5. The revised Hazard Communication Standard (HCS) is a modification to the existing standard.** The parts of the standard that did not relate to GHS (such as the basic framework, scope, and exemptions) remained largely unchanged. There have been some modifications to terminology in order to align the revised HCS with language used in the GHS. For example, the term “hazard determination” has been changed to “hazard classification” and “material safety data sheet” was changed to “safety data sheet”. OSHA stakeholders commented on this approach and found it to be appropriate.

<b>Effective Completion Date</b>	<b>Requirement(s)</b>	<b>Who</b>
December 1, 2013	Train employees on the new label elements and SDS format.	Employers
June 1, 2015*	Comply with all modified provisions of this final rule except: Distributors may ship products labeled by manufacturers under the old system until 12-1-15.	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training	Employers










	for newly identified physical or health hazards.	
Transition Period	Comply with either 29 CFR 1910.1200 (this final standard), or the current standard or both.	All chemical manufacturers, importers, distributors and employers
*This date coincides with the European Union implementation date for classification of mixtures.		

**6. Other U.S. Agencies:** The Department of Transportation (DOT), Environmental Protection Agency, and the Consumer Product Safety Commission actively participated in developing the GHS. DOT has already modified its requirements for classification and labeling to make them consistent with United Nations transport requirements and the new globally harmonized system.

**7. Global Implementation:** The new system is being implemented throughout the world by countries including Canada, the European Union, China, Australia and Japan.

- Under the current Hazard Communication Standard (HCS), the label preparer must provide the identity of the chemical and the appropriate hazard warnings. This may be done in a variety of ways, and the method to convey the information is left to the preparer. Under the revised HCS, once the hazard classification is completed, the standard specifies what information is to be provided for each hazard class and category. Labels will require the following elements:
  - Pictogram: a symbol plus other graphic elements (such as a border, background pattern, or color) that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a red square frame set on a point (i.e., a red diamond). There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS.
  - Signal words: a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are “danger” and “warning”. “Danger” is used for the more severe hazards, while “warning” is used for less severe hazards.
  - Hazard Statement: a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including the appropriate degree of the hazard.
  - Precautionary Statement: a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling of a hazardous chemical.
- There are nine pictograms under the GHS to convey the health, physical and environmental hazards. The final Hazard Communication Standard (HCS) requires eight hazards that are not within OSHA’s jurisdiction. The hazard pictograms and their corresponding hazards are shown below.

• HCS Pictograms and Hazards

<p><b>Health Hazard</b></p> 	<p><b>Flame</b></p> 	<p><b>Exclamation Mark</b></p> 
<ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	<ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Emits Flammable Gas</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>	<ul style="list-style-type: none"> <li>• Irritant (skin and eye)</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic Effects</li> <li>• Respiratory Tract Irritant</li> <li>• Hazardous to Ozone Layer (Non Mandatory)</li> </ul>
<p><b>Gas Cylinder</b></p> 	<p><b>Corrosion</b></p> 	<p><b>Exploding Bomb</b></p> 
<ul style="list-style-type: none"> <li>• Gases under Pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Skin Corrosion/ burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	<ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
<p><b>Flame over Circle</b></p> 	<p><b>Environment (Non Mandatory)</b></p> 	<p><b>Skull and Crossbones</b></p> 
<ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>

Under the revised Hazard Communication Standard (HCS), **pictograms must have red borders**. OSHA believes that the use of the red frame will increase recognition and comprehensibility. Therefore, the red frame is required regardless of whether the shipment is domestic or international.

**8. Labeling:** The current standard provides employers with flexibility regarding the type of system to be used in their workplaces and OSHA has retained that flexibility in the revised Hazard Communication Standard. Employers may choose to label workplace containers either with the same label that would be on shipped containers for the chemical under the revised rule, or with label alternatives that meet the requirements for the standard. Alternative labeling systems such as the National Fire Protection Association (NFPA) 704 Hazard Rating and the Hazardous Material Information System (HMIS) are permitted for workplace containers. However, the information supplied on these labels must be consistent with the revised HCS, e.g., no conflicting hazard warnings or pictograms.

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels are required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label that identifies the required label elements, is shown below. Supplemental information can also be provided on the label as needed.

**Sample Label:**

Product Identifier: CODE \_\_\_\_\_ Product Name: \_\_\_\_\_

### Supplier Identification

Agency Name: \_\_\_\_\_ Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Country: \_\_\_\_\_

Emergency Phone Number: \_\_\_\_\_

### Precautionary Statements:

- Keep container tightly closed. Store in cool, well ventilated place that is locked.
- Keep away from heat/sparks/open flame. No smoking.
- Only use non-sparking tools.
- Use explosion-proof electrical equipment.
- Take precautionary measure against static discharge.
- Ground and bond container and receiving equipment.
- Do not breathe vapors.
- Wear protective gloves.
- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after handling.
- Dispose of in accordance with local, regional, national, international regulations as specified.

**In Case of Fire:** use dry chemical (BC) or Carbon Dioxide (CO<sub>2</sub>) fire extinguisher to extinguish.

### First Aid:

If exposed, call Poison Center.

If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

### Hazard Pictograms:



**Signal Word:** Danger

**Hazard Statement:** Highly flammable liquid and vapor.  
May cause liver and kidney damage.

## Supplemental Information:

Directions for Use: \_\_\_\_\_

Fill Weight: \_\_\_\_\_ Lot Number: \_\_\_\_\_ Gross Weight: \_\_\_\_\_

Fill Date: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

### **9. Hazard Communication Safety Data Sheets (previously Material Safety Data Sheets):**

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs), formerly known as Material Safety Data Sheets (MSDSs), to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, to include the section numbers, headings and associated information under the headings below:

Section 1, Identification includes: product identifier, manufacturer or distributor name, address, phone number, emergency phone number, recommended use, and restrictions on use.

Section 2, Hazard(s) identification includes: all hazards regarding the chemical and required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients and trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed and required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment and chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures, protective equipment, proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage to include incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs), appropriate engineering controls and personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure, related symptoms, acute and chronic effects and numerical measures of toxicity.

Section 12, Ecological information \*

Section 13, Disposal considerations\*

Section 14, Transport information\*

Section 15, Regulatory information\*

Section 16, Other Information, includes the date of preparation or last revision.

\*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29CFR 1910.1200(g)(2)).

### **10. Hazard Communication Standard: Safety Data Sheets Additional Information**

The Hazard Communication Standard (HCS) (29 CFR 1910.1200 (g)), revised in 2012, requires that the chemical manufacturer, distributor, or importer provide Safety Data Sheets (SDSs), formerly known as MSDSs or Material Safety Data Sheets, for each hazardous chemical to downstream users to communicate information on these hazards. The information contained in the SDS is largely the same as the MSDS, except now the SDSs are required to be presented in a consistent user-friendly, 16-section format. This brief provides guidance to help workers who handle hazardous chemicals to become familiar with the format and understand the contents of the SDSs.

The SDS includes information such as the properties of each chemical; the physical, health and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. The information contained in the SDS must be in English (although it may be in other languages as well). In addition, OSHA requires that SDS preparers provide specific minimum information as detailed in Appendix D of 29 CFR 1910.1200. The SDS preparers may also include additional information in various section(s).

Sections 1 through 8 contain general information about the chemical, identification, hazards, composition, safe handling practices, and emergency control measures (e.g., firefighting). This information should be helpful to those that need to get the information quickly. Sections 9 through 11 and 16 contain other technical and scientific information, such as physical and chemical properties, stability and reactivity information, toxicological information, exposure control information, and other information including the date of preparation or last revision. The SDS must also state that no applicable information was found when the preparer does not find relevant information for any required element.

The SDS must also contain Section 12 through 15, to be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS), but OSHA will not enforce the content of these sections because they concern matters handled by other agencies.

A description of all 16 sections of the SDS, along with their contents, is presented below:

### **Section 1: Identification**



This section identifies the chemical on the SDS as well as its recommended uses. It also provides the essential contact information of the supplier. The required information consists of:

- Product is identified on the label and any other common names or synonyms by which the substance is known are listed.
- Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number.
- Recommended use of the chemical (e.g., a brief description of what it actually does, such as flame retardant) and any restrictions on use (including recommendations given by the supplier). 1

## **Section 2: Hazard(s) Identification**

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of:

- The hazard classification of the chemical (e.g., flammable liquid, category 1).
- Signal word.
- Hazard statement(s).
- Pictograms (the pictograms or hazard symbols may be presented as graphical reproductions of the symbols in black and white or be a description of the name of the symbol (e.g., skull and crossbones, flame).
- Precautionary statement(s).
- Description of any hazards not otherwise classified.
- For a mixture that contains an ingredient(s) with unknown toxicity, a statement describing how much (percentage) of the mixture consists of ingredient(s) with unknown acute toxicity. Please note that this is a total percentage of the mixture and not tied to the individual ingredient(s).

## **Section 3: Composition/Information on Ingredients**

This section identifies the ingredient(s) contained in the product indicated on the SDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed. The required information consists of:

Substances:

- Chemical name.
- Common name and synonyms.
- Chemical Abstracts Service (CAS) number and other unique identifiers.
- Impurities and stabilizing additives, which are themselves classified and which contribute to the classification of the chemical.

Mixtures:

- Same information required for substances
- The chemical name and concentration (i.e., exact percentage) of all ingredients which are classified as health hazards and are:

- Present above their cut-off/concentration limits or
- Present a health risk below the cut-off/concentration limits.
- The concentration (exact percentages) of each ingredient must be specified except concentration ranges may be used in the following situations:
  - A trade secret claim is made,
  - There is batch-to-batch variation, or
  - The SDS is used for a group of substantially similar mixtures.

Chemicals where a trade secret is claimed

- A statement that the specific chemical identity and/or exact percentage (concentration) composition has been withheld as a trade secret is required.

#### **Section 4: First-Aid Measures**

This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of:

- Necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion).
- Description of the most important symptoms or effects, and any symptoms that are acute or delayed.
- Recommendations for immediate medical care and special treatment needed, when necessary.

#### **Section 5: Fire-Fighting Measures**

This section provides recommendations for fighting a fire caused by the chemical. The required information consists of:

- Recommendations of suitable extinguishing equipment, and information about extinguishing equipment that is not appropriate for a particular situation.
- Advice on specific hazards that develop from the chemical during the fire, such as any hazardous combustion products created when the chemical burns.
- Recommendations on special protective equipment or precautions for firefighters.

#### **Section 6: Accidental Release Measures**

This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard. The required information may consist of recommendations for:

- Use of personal precautions (such as removal of ignition sources or providing sufficient ventilation) and protective equipment to prevent the contamination of skin, eyes and clothing.
- Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing.
- Methods and materials used for containment (e.g., covering the drains and capping procedures).

- Clean up procedures (e.g., appropriate techniques for neutralization, decontamination, cleaning or vacuuming; absorbent materials; and/or equipment required for containment/clean up).

### **Section 7: Handling and Storage**

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals. The required information consists of:

- Precautions for safe handling, including recommendations for handling incompatible chemicals, minimizing the release of chemical into the environment, and providing advice on general hygiene practices (e.g., eating, drinking, and smoking in work areas is prohibited).
- Recommendations on the conditions for safe storage, including any incompatibilities. Provide advice on specific storage requirements (e.g., ventilation requirements).

### **Section 8: Exposure Controls/Personal Protection**

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:

- OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.
- Appropriate engineering controls (e.g., use local exhaust ventilation, or use only in an enclosed system).
- Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin or respiratory protection needed based on hazards and potential exposure).
- Any special requirements for PPE, protective clothing or respirators (e.g., type of glove material, such as PVC or nitrile rubber gloves; and breakthrough time of the glove material).

### **Section 9: Physical and Chemical Properties**

This section identifies physical and chemical properties associated with the substance or mixture. The minimum required information consists of:

- Appearance (physical state, color, etc.);
- Upper/lower flammability or explosive limits;
- Odor
- Vapor pressure;
- Odor threshold;
- Vapor density;
- pH;
- Relative density;

- Melting point/freezing point;
- Solubility(ies);
- Initial boiling point and boiling range;
- Flash point;
- Evaporation rate;
- Flammability (solid, gas);
- Upper/lower flammability or explosive limits;
- Partition coefficient: n-octanol/water;
- Auto-ignition temperature;
- Decomposition temperature; and
- Viscosity.

The SDS may not contain every item on the above list because information may not be relevant or is not available. When this occurs, a notation to that effect must be made for that chemical property. Manufacturers may also add other relevant properties, such as the dust deflagration index (Kst) for combustible dust, used to evaluate a dust's explosive potential.

### **Section 10: Stability and Reactivity**

This section describes the reactivity hazards of the chemical and the chemical stability information. This section is broken into three parts: reactivity, chemical stability, and other. The required information consists of:

Reactivity:

- Description of the specific test data for the chemical(s). This data can be for a class or family of the chemical if such data adequately represent the anticipated hazard of the chemical(s), where available.

Chemical stability:

- Indication of whether the chemical is stable or unstable under normal ambient temperature and conditions while in storage and being handled.
- Description of any stabilizers that may be needed to maintain chemical stability.
- Indication of any safety issues that may arise should the product change in physical appearance.

Other:

- Indication of the possibility of hazardous reactions, including a statement whether the chemical will react or polymerize, which could release excess pressure or heat, or create other hazardous conditions. Also, a description of the conditions under which hazardous reactions may occur.
- List of all conditions that should be avoided (e.g., static discharge, shock, vibrations, or environmental conditions that may lead to hazardous conditions).
- List of all classes of incompatible materials (e.g., classes of chemicals or specific substances) with which the chemical could react to produce a hazardous situation.
- List of any known or anticipated hazardous decomposition products that could be produced because of use, storage, or heating. (Hazardous combustion products should also be included in Section 5 (Fire-Fighting Measures) of the SDS).

## **Section 11: Toxicological Information**

This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:

- Information the likely routes of exposure (inhalation, ingestion, skin and eye contact). The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose) – the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA.

## **Section 12: Ecological Information (non-mandatory)**

This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment. The information may include:

- Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available (e.g., acute or chronic aquatic toxicity data for fish, algae, crustaceans, and other plants; toxicity data on birds, bees, plants).
- Whether there is a potential for the chemical to persist and degrade in the environment either through biodegradation or other processes, such as oxidation or hydrolysis.
- Results of tests of bioaccumulation potential, making reference to the octanol-water partition coefficient (K<sub>ow</sub>) and the bio concentration factor (BCF), where available.
- The potential for a substance to move from the soil to the groundwater (indicate results from adsorption studies or leaching studies).
- Other adverse effects (e.g., environmental fate, ozone layer depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and/or global warming potential).

## **Section 13: Disposal Consideration (non-mandatory)**

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS. The information may include:

- Description of appropriate disposal containers to use.
- Recommendations of appropriate disposal methods to employ.
- Description of the physical and chemical properties that may affect disposal activities.
- Language discouraging sewage disposal.
- Any special precautions for landfills or incineration activities.

## **Section 14: Transport Information (non-mandatory)**

This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail or sea. The information may include:

- UN number (i.e., four-figure identification number of the substance);
- UN proper shipping name;
- Transport hazard class(es);
- Packing group number, if applicable, based on the degree of hazard;
- Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code);
- Guidance on transport in bulk (according to Annex II of MARPOL 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code)); and
- Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their premises (indicate when information is not available).

## **Section 15: Regulatory Information (non-mandatory)**

This section identifies the safety, health and environmental regulations specific for the product that is not indicated anywhere else on the SDS. The information may include:

- Any national and/or regional regulatory information of the chemical or mixtures (including any OSHA, Department of Transportation, Environmental Protection Agency, or Consumer Product Safety Commission regulations).

## **Section 16: Other Information**

This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

### **Employer Responsibilities:**

Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace. For example, employers may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency. Furthermore, employers may want to designate a person(s) responsible for obtaining and maintaining the SDSs. If the employer does not have an SDS, the employer or designated person(s) should contact the manufacturer to obtain one.

***List of Hazardous Chemicals (Note: MSDS/SDS maintained in binder at home office and at each job site)***

**List Chemicals for each section and provide SDS**

## Section A

## Section B

## Section C

### III. [Agency/University] – Hazard Communication Program

**1. Purpose:** To ensure that employees and the community are effectively informed concerning workplace safety and health hazards by comprehensively evaluating the potential hazards of chemicals, communicating information concerning hazards, and appropriate protective measures to employees, and establishing protocol for the development of a written [Agency/University] Hazard Communications Program.

**2. Program Goals:** The [Agency/University] will ensure that all employees receive Hazard Communications, right to know information and training as required by OSHA 1910/1926 General Industry and Construction Standards.

**3. Procedures:**

**A.** The [Agency/University] written Hazard Communication Program will address the following elements:

- Development, maintenance, and access to a Master Chemical List of the hazardous chemicals known to be present and identify each chemical using a name that is referenced on the appropriate Safety Data Sheet. A list shall be in each SDS binder. There shall be a Master Chemical List of all chemicals as well as a Work Area Specific Chemical List for those chemicals in the immediate work area.
- Develop procedures to control the introduction of chemicals into the workplace. All chemicals used in the work place shall be approved for use by the [Agency/University] Safety Office and have a SDS on file for all chemicals, prior to authorizing their use in the work place.
- The methods supervisors will use to inform employees of the hazards of non-routine tasks. For example, identifying unlabeled potentially hazardous waste, and the hazards associated with chemicals contained in unlabeled pipes and container in their work areas.
- Labels and other forms of warning used.
- Distribution, use, access to and training of Safety Data Sheets.
- Process of providing employees with HAZCOM information and training requirements.
- The means and methods by which the Master Chemical List and the Facility Map will be provided to the Local Fire Chief, Local Emergency Response Committee, State Emergency Response Committee and the [Agency/University] Safety Office.

**B.** [Agency/University] will maintain a master list of all hazardous substances used or stored at the facility and each substance that employees can be reasonably anticipated to encounter while performing their job duties (which shall be called the Master Chemical List).

- The Master Chemical List shall include the following information:
  - Common or trade name.
  - Chemical name.

- Location stored.
    - Average amount stored (pounds or gallons).
    - Maximum amount stored on an annual calendar basis (pounds or gallons).
  - The Master Chemical List shall be updated as needed or whenever a new substance is added or deleted from the inventory.
- C. [Agency/University] shall maintain a current Safety Data Sheet (SDS) on each chemical listed in the Master Chemical List:
- SDS shall be readily available to employees on all shifts and work schedules.
  - SDS may be kept in any form (paper, digital, online) as long as the employee's ability to access the information is not compromised. Additionally, employees shall be adequately trained on and able to locate an SDS regardless of the methods used.
  - SDS shall be provided to members of the community within ten (10) working days of receipt of written request.
  - [Agency/University] will have available at the appropriate worksite the personal protective equipment required by the SDS for each substance and shall enforce its use.
- D. For each hazardous substance stored in quantities greater than 55 gallons or 500 pounds, [Agency/University] will:
- Indicate those substances on the Master Chemical List or incorporate them in a second list.
  - Maintain a facility map that indicates the bulk storage areas of the substances.
  - Submit the Master Chemical List and the facility map to the following agencies:
    - Local Fire Chief
    - Local Emergency Response Committee
    - State Emergency Response Committee
    - {Agency/University} Safety Program Office
- E. Where applicable, [Agency/University] will prepare a Superfund Amendments and Reauthorization Act (SARA) Title III, Tier II Report annually.
- This provision is applicable to each facility that stores one or more hazardous substances at the facility in the following quantities:
    - The Threshold Planning quantity (TPQ) for these chemicals is: either 500 pounds or
    - 50 gallons.
    - The TPQ listed (whichever is lower) for the 356 chemicals listed under Section 302, also known as Extremely Hazardous Substances (EHS).
    - 10,000 pounds for any other chemical.
  - The Tier II Report shall be maintained at the facility and provided to the State Emergency Response Committee, the Local Emergency Response Committee, or the local Fire Chief within five (5) days of receipt of written request.
  - A copy of the Tier II Report shall be provided to the [Agency/University] Safety office within two (2) weeks of final submission of the report to the appropriate reporting agency.
- F. [Agency/University] will ensure that all containers of hazardous substances are properly labeled with the manufacturer's original label or one which contains the product



name and any hazard warnings contained on the original label and are legible at all times.

- G.** The [Agency/University] Safety office staff will train employees on the content and requirements of the Hazard Communication Program and the proper use and handling of relevant hazardous substances.
- General training shall include, at a minimum:
    - Review of [Agency/University] written Hazard Communication Program.
    - The employee's rights to access information under the 'Right to Know' act with
      - regards to chemical hazards in the workplace.
      - How to read SDS's and labels.
      - The process by which to obtain the policy, procedures, Hazardous Substances List and SDS.
      - The meaning of safety markings, safety signs, and the NFPA 704 sign.
  - Specific training shall include, at a minimum, one of 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.).
    - The physical and health hazards of the chemicals in the work area.
    - The measures employees can take to protect themselves from these hazards, including specific procedures that have been implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
    - The details of the hazard communication program, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
  - During the New Employee Orientation process each employee shall receive the general training stipulated above and shall receive specific training from the work area supervisor prior to performing any task which exposes the employee to a hazardous substance in their work area.
  - Employees shall receive re-training whenever a new chemical is introduced into the workplace, the employee's supervisor/manager becomes aware the employee has demonstrated unsafe work practices, upon recommendation following an accident investigation, or whenever the supervisor/manager deems appropriate and necessary to maintain safe work practices.
- H.** All persons contracted to work on the [Agency/University] property shall:
- Be informed by the Safety Director of identified safety hazards within their projected work area and be provided a copy of this policy and the associated procedures.
  - Be provided with information regarding the hazardous chemicals they could reasonably be expected to come into contact with in the course of their work and given access to SDS information for those chemicals.
  - All Contractors/Contracted Personnel shall provide to the Safety Director an SDS for each hazardous substance they bring into the workplace to which department employees could be exposed.

- The [Agency/University] shall develop specific operating procedures for the implementation of this policy and the maintenance of the records required within, and shall maintain those records in accordance with those procedures.
- Each supervisor/manager shall ensure that supervised employees comply with the requirements of this policy and its associated procedures.
- Each employee shall comply with the requirements of this policy and its associated procedures.

#### 4. Definitions:

- Substance: An item meeting one (1) or more of the following conditions:
  - Any element, chemical compound, or mixture of one (1) or both in liquid, aerosol, or gaseous form.
  - Any solid material small enough to enter the body through ingestion or respiration.
  - Any solid material which is changed or converted during use in a manner which may create or release a dust, vapor or fume.
  - Any medication that is intended to be mixed or changed from its original form prior to use.
- Extremely Hazardous Chemical: Any chemical listed on the Environmental Protection Agency's List of Extremely Hazardous Chemicals.
- Hazardous Substance: any substance which could result in harm to an employee if ingested, absorbed, inhaled, or touched.
- Safety Data Sheet (SDS): a document, prepared by the manufacturer of a hazardous substance, which contains information on the hazards associated with that substance.

#### 5. North Carolina General Statutes:

- Chapter 95, Occupational Safety and Health Act of North Carolina: 95-129(2) and 95-148(1)
- Chapter 95, Article 18: Hazardous Chemicals Right-to-Know Act
- Chapter 143, Article 63: State Employees' Workplace Requirements Program for Safety and Health: 143-582(1), (3), (4) and (6)
- North Carolina Administrative Code: 1. 25NCAC 1N.0105(a)
- North Carolina State Employees' Workplace Requirements Program for Safety and Health:
  - Section 3: Policy 3.12 and Policy 3.17
  - Section 5: Policy 5.6
- North Carolina Occupational Safety and Health Standards for General Industry:
  - 29 CFR 1910.145
  - 29 CFR 1910.1200
  - Title 42, Chapter 116, Superfund Amendments and Reauthorization Act, Title III.

#### 6. List of Hazardous Chemicals

The Safety Office will compile a list of all hazardous chemicals that will be used on the worksite by reviewing container labels and Safety Data Sheets. The list will be updated as required for each project site by the Safety staff. It will be kept in the Safety Office, as well as in Division offices.

#### 7. Labeling:

It is the policy of this Agency to ensure that each container of hazardous chemicals on a job site is properly labeled. The labels will list:

- the contents of the container;
- appropriate hazard warnings; and

- the name and address of the manufacturer, importer, or other responsible party. Labels are not to be defaced or removed from original or secondary containers. All labels must be legible. If a label is not legible, the employees shall bring this to the supervisor's attention and chemical and container shall not be used until appropriate label is made legible to include the containers identity of the hazardous chemical; appropriate hazard warnings and name and address of the chemical manufacturer, importer or other reasonable party.
- To further ensure that employees are aware of the chemical hazards of materials used in their work areas, it is [Agency/University] policy to label all secondary containers. Secondary containers will be labeled with either an extra copy of the manufacturer's label, or with a sign or generic label that lists the container's contents and appropriate hazard warning.