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1.0 Applicability

This program applies to all SMU faculty, staff, students, and service providers at all facilities owned and/or operated by SMU.

2.0 Scope

As part of the continuing effort to reduce exposure and risk to employees, the Southern Methodist University Environmental Health and Safety Department (EHS) has implemented this Hazard Communication (Hazcom) Program to provide information about hazardous chemicals used in the workplace and appropriate preventive and protective measures. This written program is designed to comply with the requirements of the federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

3.0 Definitions

The following terms are defined in order to allow a better understanding of this program:

- **GHS**: a globally standardize system that provide information about the classification and information of all hazardous chemicals on labels, pictograms and documentation according to OSHA 29 CFR 1910.1200
- **Hazard Communication:** hazardous chemical information will be provided to the employees though the use of labels, pictogram, documentation and etc.
- **Hazardous Materials**: chemicals or products that pose a physical or health hazard to the human body and environment
- **Safety Data Sheet**: written material prepared by the manufacturer or distributor that conveys the physical and health hazard properties of a chemical or product.

4.0 Core Information and Requirements

4.1 Hazardous Materials Inventory

Each department is required to maintain an inventory of the hazardous materials used or stored for non-laboratory use by departmental employees. The Hazardous Material Inventory, listing each material as identified on the Safety Data Sheet (SDS) and container label are attached as Appendix A. The Shop Managers or Area Supervisors will remove materials no longer present and add new materials when acquired or at least annually. This inventory is available to all employees during regular work hours and its location must be posted in a location accessible to all employees.

4.2 Product Labels and Other Forms of Warning

The purpose of labeling is to provide workers with information concerning the potential hazards of the chemicals they must use and to provide information needed to allow an employee to find the corresponding SDS

All hazardous chemical containers used at this workplace will either have the original manufacturer's label that includes a product identifier, an appropriate signal word, hazard statement(s), pictogram(s), precautionary statement(s) and the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party OR a label with the appropriate label elements just described; OR workplace labeling that includes the product identifier and words, pictures, symbols, or combination that provide at least general information regarding the hazards of the chemicals. All containers of hazardous chemicals are required to be labeled with information in English. GHS compliant labels instruction and pictogram are attached in Appendix D and E.

Any questions about the proper interpretations of the label should be referred to the employee's immediate supervisor or the Shop Manager or Area Supervisor, who will, in turn, refer them to EHS, as appropriate.

Transfer containers intended only for the immediate use (within the work shift) by the employee performing the transfer from a labeled container, do not require GHS compliant labeling, but the contents must be identified on the container. If the product will be used for more than one work shift, the new container must have labeling that includes the product identifier and words, pictures, symbols, or combination that provide at least general information regarding the hazards of the chemicals.

No one shall intentionally deface or obscure container labels or hazard warnings on incoming containers of hazardous materials. Supervisors of employees using hazardous materials are responsible for ensuring that labels are legible on all containers in their work area.

Additional labeling systems, such as the *Hazardous Materials Identification System* (HMIS) or the *National Fire Protection Agency (NFPA)* diamonds, may be used to complement, but not replace, labeling requirements. Training on the use and recognition of these alternate labeling systems will be provided during department specific training.

4.3 Safety Data Sheets

Each department will maintain a current SDS on record for each hazardous chemical in use. The Shop Manager or Area Supervisor is responsible for maintaining and updating the SDS file(s). If an SDS is not on file, they will request the SDS from the manufacturer, importer, or distributor of the product. Check the manufacturer's website to see if they have posted the SDS. If the SDS can not be located using one of the above methods, EHS recommends calling or emailing the manufacturer. The initial request may be via telephone with subsequent requests made in writing. These requests must be documented and maintained. Additionally, Google search can be used to obtain a chemical's SDS documentation by searching for the chemical name or CAS number followed by "SDS". If, the above methods failed, assistance may be sought from EHS. For more information on SDSs, see the EHS Safety Data Sheet website.

Southern Methodist University will rely on the initial hazard classification performed by the manufacturer, importer, or distributor of the product.

For employees without access to the internet, SDSs are located at a location designated by their supervisor, where they are readily accessible to employees during regular work hours. Where employees must travel between workplaces during a work shift, the SDS is kept in the primary work area. No employee is required to work with a hazardous chemical for which an SDS is not available.

EHS does not maintain a central file of SDS for Southern Methodist University. However, SDS for many products are available through the Internet.

For additional information on reading and understanding SDSs, see Appendix B.

4.4 Non-Routine Tasks

Tasks which do not occur on a frequent basis or are not identified as part of normal operations and may involve contact with a hazardous material(s) are referred to as non-routine tasks. Special hazards that employees may encounter when performing non-routine duties in the course of their work are discussed with the employee before the job begins.

It is the responsibility of the supervisor to ensure that employees receive necessary specialized training. Information is provided on safe handling, personal protective equipment, appropriate exposure monitoring, and other possible control measures. Assistance in evaluating the hazards of non-routine tasks and determining the appropriate precautions and protective measures is available from EHS.

4.5 Contractor Requirement

Upon request, each department will provide a copy of this written Hazard Communication Program, the chemical inventory, and the opportunity to review SDSs on file to contractors planning to work in an area where hazardous chemicals are used or stored.

Per the OSHA Hazard Communication Standard, the contractor is required to inform and provide SMU with a chemical inventory and SDS of the materials to be introduced into the work area in the course of their work at SMU. The contractor must also provide information on the location of chemical use and storage to the department. The contractor is responsible for the removal of all unused portions of the chemicals and their waste products from the University, in accordance with federal and state regulations.

5.0 Roles and Responsibilities

5.1 Executives and Administrators

- Ensure that responsibilities assigned within this program are carried out within their administrative work units.
- Monitor implementation of this program within their work unit.
- Ensure adequate funding is available to support this program.

5.2 Environmental Health and Safety Department (EHS)

- Responsible for the development and implementation of the Written Hazard Communication Program
- Assist departments in obtaining SDSs, when necessary
- Develop and provide general training and assist supervisors with specific training, when necessary.
- Provide attendance records for training provided by EHS.
- Provide advice on health and safety issues related to chemical safety and handling.
- Conduct employee chemical exposure monitoring, where appropriate.
- Periodically audit the Hazard Communication Program.

5.3 Shop Managers and Area Supervisors

- Responsible for coordinating and administering the Hazard Communication Program for in their respective areas.
- Serves as the first point of contact for employees on Hazcom issues for the department
- Maintain hazardous materials inventory and review annually
- Ensure their department's chemicals/products are properly labeled.
- Ensure labels on incoming containers of hazardous chemicals/products are not removed or defaced.
- Ensure chemicals are stored properly in compatible containers that are in good condition.
- Ensure chemical storage areas are identified.
- Acquire and maintain Safety Data Sheets (SDSs) for all hazardous chemicals/products in the work area and department.
- Ensure SDSs are readily accessible to employees during each work shift.

- Maintain records of general and department-specific employee training
- Provide appropriate personal protective equipment
- Provide contractors with necessary information, upon request
- Obtain information from contractors regarding chemicals they will use in work areas in coordination with the Project Manager
- In conjunction with EHS, review the written Hazard Communication Program at least annually

5.4 Supervisors

- Inform the responsible person of new chemical purchases, to aid in maintenance of a chemical inventory.
- Provide SDSs received to the Shop Manager
- Ensure containers are properly labeled.
- Ensure chemicals are stored properly in compatible containers that are in good condition.
- Ensure chemical storage areas are identified.
- Ensure employees attend required general training provided by EHS.
- Ensure employees are informed of the location and availability of the written Hazard Communication Program
- Provide chemical and area-specific training to employees, with assistance from EHS, as needed
- Ensure employees receive necessary specialized training for non-routine tasks

5.5 Employees/Students

- Adhere to the provisions of the Written Hazard Communication Program.
- Complete general and specific training.
- Report any problems with storage or use of chemicals
- Immediately report spills or suspected spills of chemicals
- Use only those chemicals for which they have been trained
- Use chemicals only for specific assigned tasks in the proper manner
- Not bring outside chemicals onto University property without evaluation and approval by all appropriate faculty/staff
- Ensure containers are properly labeled.
- Label new containers when transferring from the original container.
- Ensure chemicals are stored properly in compatible containers that are in good condition.
- Review container labels and SDSs for products before using them.
- Use personal protective equipment appropriately.
- Work with hazardous chemicals in a safe manner, following guidelines outlined in training.

5.6 Shipping/Receiving Personnel

- Ensure all received containers are properly labeled and that labels are not removed or defaced.
- Ensure all shipped containers are properly labeled and appropriate hazard warnings are noted.
- Ensure Safety Data Sheets (SDSs) received are properly distributed.

5.7 Contractors

- Must have an established Hazard Communication Program for their company.
- Coordinate information with EHS department.
- Contractors must train their employees and document accordingly

- Monitor and ensure proper storage and use of chemicals is taking place.

6.0 Goals, Objectives and Performance Measures

Work Unit and Contractor performance measures related to this program are incorporated into EHS documentation.

Individual performance measures related to this program are incorporated evaluations and monitoring.

6.1 Performance Measures

It is the Goal of SMU to have Zero accidents. This goal can only be met by setting objectives and measuring our current performance against those objectives. Audits and inspections of the program and usage of the program by SMU employees and contractors will take place periodically and annually.

Department performance measures are will be incorporated into EHS documentation. Individual performance measures related to this program may be incorporated evaluations and monitoring.

6.2 Periodic Inspections

Inspections will be conducted to evaluate and correct any deficiencies in the program. Periodic inspections are completed as part of an ongoing quality process.

- Supervisors of authorized employees are responsible for completing periodic inspections on at least an annual basis in order to ensure adherence to the hazard communication procedures described in this document.
- Inspections will focus on correcting any deviations from hazard communication procedures.
- Inspection records are to be maintained by the work unit and must be available for review by EHS.

6.3 Annual Inspections

At least annually, SMU must inspect and verify Hazard Communication Application for each department, business unit, or worksite in which Hazard Communication Program is necessary. An authorized employee must perform the annual inspection. The inspection documents will be kept on record with EHS for three years.

7.0 Training

All employees potentially exposed to hazardous materials in the workplace must be provided with training prescribed in the Hazard Communication Standard. The Shop Manager or Area Supervisor is responsible for determining who is to receive training and for maintaining attendance records for both general and department-specific training.

It is the responsibility of the department to provide job-specific chemical safety training and to contact EHS to make arrangements for general training of new employees prior to any job assignment involving work with hazardous substances.

An outline of the general training program is attached as Appendix C. The training includes, as a minimum:

1. the provisions of the OSHA Hazard Communication Standard, including:

a. what is an SDS, what information do SDSs contain, and how they are obtained
b. labeling requirements and how labels relate to SDSs
c. requirements for a written Hazard Communication Program
d. requirements for training;

2. an overview of general toxicology, including methods to recognize hazards, hazard evaluation, and common methods to prevent and control employee exposure;

3. The use and function of personal protective equipment, including gloves, eye and face protection, protective clothing and respirators. *NOTE: Use of respirators is subject to prior review and approval by EHS. Separate training is provided annually to all individuals assigned a respirator.*

More specific information on certain hazardous materials or categories of materials used in the workplace is provided to employees by the department. Supervisors or designees are responsible for informing employees of:

1. The location and availability of the written Hazard Communication Program, the chemical inventory, and the SDS file,
2. The nature and potential health and safety risks of hazardous substances to which employees are exposed in the course of their employment,
3. Proper handling procedures, including use of personal protective equipment, for hazardous materials to which employees are exposed in the course of their employment,
4. Appropriate emergency treatment for exposures and procedures for cleanup of leaks and spills,
5. The location of hazardous substance containers present in their workplace.

Additional training must be provided to employees when new hazards are introduced into the work area and before any changes in operation which may affect the hazard to which they may be exposed.

8.0 Program Evaluation

The EHS will review the effectiveness of the program by:

- Verifying and documenting that all qualified persons have had appropriate training.
- Inspecting the program application for each department, business unit, or worksite in which Hazard Communication Program is required.
- Reviewing incidents related to applicable operations and Hazard Communication Program failures.
- Documenting and reviewing the periodic inspections and annual program inspections.
- Providing an annual review of the Hazard Communication Program for compliance and opportunities for improvement.
- Revise the written Hazard Communication Program as required.

9.0 Resources

Business Units shall ensure that appropriate resources are identified, allocated, and verified to ensure this program is communicated and implemented.

10.0 Associated Forms, Documents, and References

10.1 Forms

Appendix A: Hazardous Materials Inventory List
Appendix B: Safety Data Sheet Information
Appendix C: Hazard Communication Training
Appendix D: GHS Pictogram Descriptions
Appendix E: GHS Sample Label

10.2 Document Control

Owner laboratories must keep records concerning any inspections, inventories and training regarding Hazard Communication Program.

All records must be kept for a minimum of 3 years within the department. The training records should include employee name, training date, and the content of the training. The records must be made available to regulatory agencies such as OSHA and EHS upon request

10.3 References

- https://www.osha.gov/dsg/hazcom/
- 29 CFR 1910.1200, the Hazard Communication Standard (OSHA)

11.0 Reviewed By

Date of Review	Reviewed By	Reason for Review
	EHS Group	Internal audit for compliance, design control
	Manager Review Group	Awareness, EHS quality process- Management Review
	AVP / CRO	Approval of draft program
	Legal	
	Human Resources	

12.0 Revision History

Revision Number	Date of Revision	Revision Description	Basis for Revision
Draft			
V1		Out of draft status	Internal reviews completed

13.0 Decision Record

Date of Decision	Approved By	Decision Description	Basis for Decision
	AVP / CRO	Implementation of program	EHS quality process - Continual Improvement

APPENDIX A

HAZARDOUS MATERIALS INVENTORY

Name of Product	CAS Number	Number of Containers	Quantity Per Container

APPENDIX B

Reading and Understanding Safety Data Sheet Information

Per the federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, departments are required to obtain Safety Data Sheets (SDSs) from the manufacturer and maintain them in such a way that they are accessible to personnel. A system should be in place to catalogue SDSs when received. If an SDS is not received with a shipment, it may easily be obtained by requesting one from the manufacturer. In many cases, the SDSs may have been sent to the "Safety Officer", and may have been received by EHS. Additionally, Google search can be used to obtain a chemical's SDS documentation by searching for the chemical name or CAS number followed by "SDS".

Several chemical distributors have SDSs available through the Internet. Contact EHS at 8-2430 for assistance.

Following is an explanation which is provided to help interpret the information found on manufacturers' SDSs. In 2012, OSHA adopted the Globally Harmonized System for Chemical Classification (GHS) and with that, changed the name of Material Safety Data Sheets (MSDSs) to Safety Data Sheets (SDSs). This also included adoption of a uniform format for all manufacturers into the following 16 sections.

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

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

Section 3: Composition/Ingredient Information includes information on chemical ingredients; trade secret claims.

Section 4: First-Aid Measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5: Fire-Fighting Measures lists suitable extinguishing techniques, equipment; 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, including incompatibilities.

Section 8: Exposure Control/Personal Protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; 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; 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(29 CFR 1910.1200(g)(2)).

APPENDIX C

HAZARD COMMUNICATION TRAINING

Course Outline - General Training

Description

Chemicals can pose a wide range of health and physical hazards, and exposure to hazardous chemicals is common for workers in a large variety of industries. When workers are exposed to hazardous chemicals, OHSA requires employers to provide employees with information about those hazards and training over how to protect themselves and others from harm. During this course, employees will learn about OSHA's Hazard Communication (HAZCOM) standard and the methods for learning about chemical hazards, including labels, safety data sheets (SDS) and hazard assessments. This course is designed for employees who need initial or refresher Hazard Communication (HAZCOM) training. This course is presented in English and Spanish.

Relevant Standards

29 CFR 1910.1200, the Hazard Communication Standard (OSHA)

Outline

- Introduction and objectives
- Identify the purpose and requirements of a Hazard Communication Program
- Identify types of chemical hazards and hazard controls
- Identify the sources of information for workplace chemical hazards
- Identify requirements for medical records
- Quiz

APPENDIX D

GHS PICTOGRAM DESCRIPTIONS

Health Hazard  ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity	**Flame**  ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides	**Exclamation Mark**  ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  ▪ Gases Under Pressure	**Corrosion**  ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals	**Exploding Bomb**  ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
Flame Over Circle  ▪ Oxidizers	**Environment** **(Non-Mandatory)**  ▪ Aquatic Toxicity	**Skull and Crossbones**  ▪ Acute Toxicity (fatal or toxic)

APPENDIX E

GHS SAMPLE LABEL

Effective June 1, 2015, each container of a classified hazardous chemical is to be labeled, tagged, or marked with the following elements:

1. Product or chemical identifier clearly indicated on the label that matches the product or chemical identifier on the SDS;
2. Contact information for the product supplier, including the company name, address
3. Pictograms (see Appendix D - GHS Pictogram Descriptions) on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.
4. A signal word, and hazard and precautionary statements.
5. Supplemental information may also be provided on the label as needed.