
PROGRAM: Hazard Communication Program

Chapter 2

1. Purpose

The OSHA Hazard Communication Standard is promulgated to ensure that all chemicals used by an organization are evaluated and information regarding their hazards be communicated to employees. The goal of the standard is to reduce the number of chemically related occupational illnesses and injuries.

2. Scope

To comply with the Hazard Communication Standard, this written program has been established by Tidewater Community College (TCC). This revised program incorporates the changes to the Federal Regulation, 29 CFR 1910.1200, which aligns the current Hazard Communication Standard with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS), published in the *Federal Register* in March 2012 (77 FR 17574). Two significant changes contained in the revised standard require the use of new labeling elements and a standardized format for Safety Data Sheets (SDSs), formerly known as, Material Safety Data Sheets (MSDSs). The new label elements and SDS requirements will improve workers' understanding of the hazards associated with the chemicals used in their workplace.

This program applies throughout TCC. Copies of the college-wide program will be available for review by any employee in the following locations:

- Included with SDS binders wherever they are maintained
- Department of Safety and Security

3. Responsibilities

Responsibilities for the development and implementation of all safety and health programs included in the Classroom, Occupational Safety & Health Plan are defined in the Classroom, Occupational Safety & Health Policy, No. 1300, dated April 18, 2016. Refer to Attachment F of a specific department's Hazard Communication Program for the employees responsible for the implementation of the Hazard Communication Program at that location.

4. Definitions

Chemical: means any substance, or mixture of substances.

Chemical manufacturer: means an employer with a facility where chemical(s) are produced for use or distribution.

Chemical name: means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS), or a name that will clearly identify the chemical for the purpose of conducting a hazard classification.

Classification: mean to identify the relevant data regarding the hazards of a chemical; review those data to determine the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

Distributor: means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee: means a worker who may be exposed to hazardous chemicals under normal operating conditions. Workers such as office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer: means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Exposure or exposed: means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. In terms of health hazards, an employee is subjected to any route of entry (e.g. Inhalation, ingestion, skin contact or absorption.)

Hazard category: means the division of criteria within each hazard class. These categories compare hazard severity within a hazard class.

Hazard class: means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC): means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed 1910.1200.

Hazard statement: means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous chemical: means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health hazard: means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity, or aspiration hazard.

Immediate use: means the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label: means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label elements: means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Physical hazard: means a chemical that is classified as posing one of the following hazardous effects: explosive, flammable, oxidizer, self-reactive, pyrophoric, self-heating, organic peroxide, corrosive to metal, gas under pressure, or in contact with water emits flammable gas.

Pictogram: means a composition that may include 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. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary statement: means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling.

Produce: means to manufacture, process, blend, extract, generate, emit, or repackage.

Product identifier: means the name or number used for a hazardous chemical on a label or in the SDS.

Pyrophoric gas: means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130°F or below.

Responsible party: means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Safety data sheet (SDS): means written or printed material concerning a hazardous chemical that is prepared in accordance with 1910.1200(g).

Signal word: means a word used to indicate the relative level of severity of hazard and alert the reader/user to a potential hazard on the label. The signal words used in 1910.1200 are “**DANGER**” AND “**WARNING**”. “**DANGER**” is used for the more severe hazards, while “**WARNING**” is used for less severe hazards.

Simple asphyxiant: means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those exposed, leading to unconsciousness and death.

Substance: means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Use: means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work area: means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace: means an establishment, job site, or project, at one geographical location containing one or more work areas.

5. Procedures

Basic components of the hazard communication plan include:

A. Hazardous Chemical Inventory List

A list of hazardous substances used by any Program or Department shall be kept with safety data sheets (SDSs) in the Director’s office, or another specified location.

B. Hazard Determination

All hazardous chemicals at Tidewater Community College are purchased materials; there are no manufactured or produced hazardous chemicals. All Programs and Departments shall follow the hazard determination and classification made by the chemical manufacturer as indicated on the SDS.

C. Safety Data Sheets (SDSs)

When chemicals are ordered, the TCC employee placing the order shall specify on the purchase order that chemicals are not to be shipped without corresponding safety data sheets.

When chemicals and SDS's are delivered to any Department, they will be reviewed for completeness by the Provost, Dean, Faculty member or designee. Upon initial receipt or receipt of an updated SDS, the SDS shall be added to the labeled SDS binder immediately.

SDS's for hazardous chemicals used by the any Program will be kept in labeled binders in the Manager's or Director's office, or another specified location. These binders will be readily and immediately accessible for all employees working in those areas during each work shift.

SDS's will be reviewed at least annually by the Provost, Dean, Faculty member, Department Manager, Program Director or their designee. The Office of Safety and Security will audit and inspect departments using chemicals and maintaining SDS binders. A new SDS should be obtained when an item is reordered or if the SDS has not been updated within the past year. An electronic copy of the SDS will be provided to the Safety Program Coordinator to be uploaded into the SDS online database.

Any manufacturer who fails to provide a SDS for an ordered chemical will be reported to the nearest Virginia Occupational Safety and Health (VOSH) Office after three documented unsuccessful requests by the Safety and Security Office.

D. Labels and Other Forms of Warning

The Hazard Communication Standard requires that hazardous chemicals be labeled by manufacturers. Upon delivery of chemicals or any hazardous materials, the Department employee receiving the chemicals will ensure that they are labeled properly. Any chemicals without proper labeling will not be accepted.

When chemicals are transferred from the manufacturer's containers to secondary containers, Program Director will ensure that the containers are labeled with the identity of the chemicals and appropriate hazard warnings.

See Attachments B and C for labeling standards used at TCC.

The entire labeling procedure for each department will be reviewed annually by the Provost, Dean, Faculty member or designee and modified as necessary.

In accordance with the new GHS labeling system, the following will be required by all manufacturers or distributors by June 1, 2016. See Attachment C for an example of a manufacturer's container label.

- Product identifier (this can be the chemical name, code number or batch number). The same product identifier will also be found in Section 1 of the SDS.
- Signal word (this word is used to indicate the severity of the hazard and alert the user – there are only two signal words “**DANGER**” and “**WARNING**” regardless of how many hazards a chemical may have. “Danger” will be used in the more severe hazards, and “warning” for less severe hazards.
- Pictograms (there are eight (8) required pictograms which will be included in the new labeling system. They must be in the shape of a square set at a point, and will include a black hazard symbol on a white background with a red frame wide enough to be clearly visible (See Attachment D)
- Hazard Statements (will describe the nature of the health or physical hazard(s) of a chemical, including where appropriate, the degree of hazard, i.e., FLAMMABLE (a physical hazard) or ‘Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin’ (a health hazard)
- Precautionary Statements (will describe immediate treatment such as ‘flush eyes’ or other treatment statements)
- Supplier/manufacturer Information includes name, address, phone number

Workplaces have the option to create their own labels for secondary containers (used when a product is transferred from its original container to another container to be used by an employee for longer than one shift). The label can either have all of the required information that is on the original label from the manufacturer, or the product identifier and words, pictures, symbols or a combination thereof, which in combination with other information immediately available to employees, provide specific information regarding the hazards of the chemicals. If an employer chooses to use the pictograms on the secondary container label, these pictograms may have a black border, rather than a red border.

E. Employee Information & Training

Prior to starting work, new employees of TCC will attend a general health and safety orientation program provided by the Human Resources Department in coordination with the Safety and Security Department. The Provost, Dean, Faculty member, or designee is responsible for organizing and conducting position-specific training to all new employees regarding the hazardous chemicals and materials used within their department.

The Provost, Dean, Faculty member or designee is responsible for organizing and conducting refresher training for all employees under their supervision related to the hazardous chemicals and materials used in their

areas. The workplace will maintain an outline of the training provided and documentation of when the training was provided and to whom.

The following topics will be covered in a hazard communication training activity:

- An overview of the requirements of the Hazard Communication Standard.
- The new GHS labeling system and how to use it.
- How to review SDSs and where they are kept.
- Chemicals present in work operations.
- If employee will be responsible for receiving shipments of chemicals, instructions on proper handling procedures, label checking, and SDS filing.
- Physical and health effects of hazardous chemicals in the area.
- Methods and observation techniques used to determine the presence or release of hazardous chemicals in the area.
- Personal protective equipment and work practices to lessen or prevent exposure to chemicals.
- Pictograms.
- Safety/emergency procedures to follow if exposure occurs.
- Location and availability of the written Hazard Communications Program.

Following each training session, the employee is required to sign and date the training record verifying attendance. See Attachment E for a sample training record. Before any new employee can begin work which requires the use of or potential exposure to hazardous chemicals, training as indicated above must be completed. Additional training is to be provided with the introduction of each new hazard, chemical or substance. Records of this additional training will be maintained.

F. Non-Routine Tasks

The Facilities Manager, Acting Facilities Manager or District Management is to review the work practices in their areas to identify tasks that are not performed on a regular basis, such as annual maintenance of equipment, which may require that employees review SDS information prior to starting the task.

Prior to any employee beginning a hazardous non-routine task, he/she must report to the supervisor to determine the hazards involved and the protective equipment required.

G. Unlabeled Pipes

Work activities may be performed in areas where chemicals are transferred through pipes. These pipes are not required to be labeled; however, the employee needs to be aware of potential hazards. Prior to starting work in areas having unlabeled pipes, the employee shall contact

the Facilities Manager, Acting Facilities Manager or District Management to determine the identity of the chemical in the pipes, potential hazards, and, necessary safety precautions.

The Facilities Manager, Acting Facilities Manager or District Management shall do an assessment to identify unlabeled pipes and what materials those pipes contain or carry. A current list of all unlabeled pipes must be maintained and be available should an employee or contractor require that information.

H. On-Site Contractors

Contractors performing services on-site at TCC locations are to be advised by the Facilities Manager, Acting Facilities Manager or District Management about the following information:

- Location of SDSs for any hazardous chemicals to which the contractor's employees may be exposed
- Precautions and procedures to follow when necessary to protect employees during emergencies
- Labeling system used in the workplace

It is the responsibility of the Facilities Manager, Acting Facilities Manager or District Management to ensure that all SDS's of chemicals to which the contractor's employees may be exposed are made available at a central location in the workplace along with an example of the labeling system in use.

6. Program Review

Attachment F of each specific campus Hazard Communication Program will provide listing of employees responsible for the implementation of the Program at that location. The written Hazard Communication Program for Tidewater Community College (TCC) will be reviewed by the Safety Program Coordinator or designee annually and updated as necessary (See Attachment G). Any assessments or revisions shall be provided to the Director of Safety and Security.

Attachment A

Hazardous Chemical Inventory List

[MSDS Online Database - Tidewater Community College](#)

A complete electronic database of over 4000 safety data sheets (SDSs) is accessible through the MSDS Online Database. Hard copies of the SDSs are maintained in the various campus departments using the hazardous materials, or chemicals. The web link above will provide access to the TCC database which was incorporated into the Virginia Community College System (VCCS) electronic database of safety data sheets in 2015.

ATTACHMENT B

LABELING REQUIREMENTS

The National Fire Protection Association (NFPA) Fire Diamond symbol is a recognized labeling system often found on buildings/structures and freight transportation (tanker trucks, rail cars, etc.) to identify hazards associated with the product/chemical being transported or stored. The NFPA fire diamond is a labeling system recognized by hazmat teams and public safety responders during an emergency or a hazardous material spill. The NFPA Fire Diamond may be used in conjunction with the GHS labeling system, yet, cannot replace GHS labels on containers. Also, the numerical hazard rating system for the NFPA Fire Diamond is the EXACT opposite of the numerical hazard ratings provided by GHS hazard classification;

- NFPA 704 uses a numerical rating system of 0-4 with 4 indicating the most severe hazard.
- Hazard Communication revised in 2012, uses a numerical rating system of 1-4 with 4 indicating the least hazardous

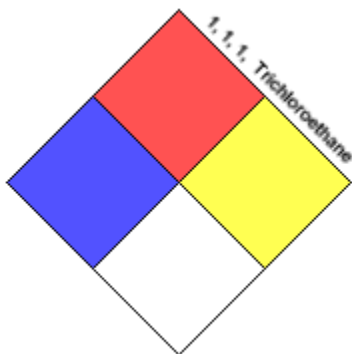
1, 1, 1, Trichloroethane

Health – NFPA rating 2 – can cause temporary incapacitation or residual injury

Flammability – NFPA rating 1 – must be preheated before ignition can occur

Instability – NFPA rating 0 – Normally stable, even under fire conditions



Protective Equipment – respiratory and skin protection



1, 1, 1, Trichloroethane	
1	HEALTH
1	FLAMMABILITY
0	REACTIVITY
0	PROTECTIVE EQUIPMENT

ATTACHMENT C

SAMPLE OF AN ORIGINAL CONTAINER LABEL REQUIRED BY NEW GHS REQUIREMENTS

2 	1 Sulfuric Acid	2 
	3 Danger! May be harmful if swallowed. Causes severe skin burns and eye damage. Fatal if inhaled. Harmful to aquatic life.	
	4 Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.	
5	5 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.	
	6 In case of fire Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.	
	See Material Safety Data Sheet for further details regarding safe use of this product.	
6 Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA Telephone : +18003255832		
1 Product Identifier	4 Hazard Statements	
2 Pictograms	5 Precautionary Statements	
3 Signal word, "Danger!"	6 Supplier Information	

SECONDARY CONTAINER LABEL REQUIREMENTS

Chemicals that are transferred from the original container into a secondary container, and are not immediately used, or placed in storage must have, at a minimum, the following information placed on the secondary container.

Chemical identity (name)

Appropriate health or physical hazard warnings (flammable, corrosive, skin irritant, etc.)

Signal word – either **DANGER** or **WARNING**

The only exception to the labeling standard outlined above is if employees transfer chemicals from a labeled container to a portable, secondary container that is intended only for their IMMEDIATE use and possession, no labels, tags, or markings are required on the container.

ATTACHMENT D
NEW PICTOGRAMS REQUIRED BY GHS

 <p>Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitizer Target Organ Toxicity Aspiration Toxicity</p>	 <p>Flammables Pyrophorics Self-Heating Emits Flammable Gas Self-Reactives Organic Peroxides</p>
 <p>Irritant (skin and eye) Skin Sensitizer Acute Toxicity Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer</p>	 <p>Skin Corrosion/Burns Eye Damage Corrosive to Metals</p>
 <p>Explosives Self-Reactives Organic Peroxides</p>	 <p>Gases Under Pressure</p>
 <p>Oxidizers</p>	 <p>Acute Toxicity (fatal or toxic)</p>
 <p>Aquatic Toxicity</p>	

ATTACHMENT E
HAZARD COMMUNICATION PROGRAM
TRAINING ROSTER

Training Topic: _____

Date: _____

Department: _____

	<i>Name (Please Print)</i>	<i>Signature</i>
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2		
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Instructor: _____

ATTACHMENT F

RESPONSIBLE PARTY

TITLES WITH CORRESPONDING NAMES

(See Hazard Communication Program at specific campus locations for responsible employee's name)

Title	Name
Facilities Managers	
Custodial Managers	
Laboratory Science Managers	
Warehouse Manager	
Director, Visual Art Center	
Director, Regional Automotive Center	
Director, Theatre Program	
Building Superintendents, Campus Student Centers	

ATTACHMENT G

ANNUAL PROGRAM REVIEW & SIGNATURE FORM

The Hazard Communication Program for TCC has been reviewed and updated.

DATE	SIGNATURE	TITLE