



Safety Data Sheets

Safety Training Program



Goal

This Safety Training Program aims to help employees read and understand **Safety Data Sheets (SDSs)** for each hazardous chemical found on the job.

Objectives

Employees will demonstrate knowledge of the content and format of SDSs for hazardous chemicals, the risks of exposure, ways to protect themselves against hazards, and how to determine ways chemicals are used safely.

Background

The Occupational Safety and Health Administration (OSHA) developed the Hazard Communication Standard (HCS), [29 CFR 1910.1200](#), to ensure that all chemical hazards in the workplace are evaluated, and that understandable information about the hazards is provided to employers and employees. The HCS covers physical hazards (such as flammability) and health hazards

(such as irritation, lung damage, and cancer). SDSs – formerly called Material Safety Data Sheets (MSDSs) – are a key requirement of the standard and a primary means for explaining chemical hazards. SDSs include the following information about a chemical:

- its properties;
- its physical, health, and environmental hazard(s);
- ways to protect employees from its hazard(s); and
- safety precautions for handling, storing, and transporting it.

Responsibilities

Chemical manufacturers, distributors, and importers must:

- evaluate hazards of chemicals they produce or import and provide customers with an SDS for each hazardous chemical when it is initially

shipped; and

- update the SDS within three months of learning of the availability of additional, significant information about a chemical's hazards or ways to protect against the hazards.

Employers must:

- maintain an SDS for each hazardous chemical in the workplace;
- obtain any SDS not received with the initial shipment of the chemical from the supplier and any missing information if the SDS is incomplete;
- give employees access to SDSs in their work areas and during their shifts in a physical or electronic format;
- give employees training on accessing electronic SDSs and backing up the system if electronic SDSs are used;
- make hard copies of SDSs accessible to employees and medical personnel;
- inform employees about chemical hazards in their immediate work areas before an initial work assignment and when a new hazard is introduced; and
- train employees about the information contained in SDSs.

While state and local government employees in Texas are not subject to OSHA regulations, the Texas Department of State Health Services (DSHS) regulates the Texas Hazard Communication Act. Visit the DSHS website at <https://www.dshs.state.tx.us/hazcom/publications.aspx> for information about state and local government requirements.

SDS Specifications

OSHA requires that SDSs are in English, though they may also be provided in other languages. It must also display information in a uniform, 16-section format.

Sections 1-11 and 16 on the SDS are the minimum information as detailed in [29 CFR 1910.1200 Appendix D](#). Updated in 2012, a key revision of the HCS provides a single set of criteria, using the [United Nations' Globally Harmonized System of Classification and Labelling of Chemicals](#) (GHS), for classifying chemicals by their health and physical hazards. The revised HSC also establishes specified hazard communication elements for labeling and SDSs.

Sections 12-15 on the SDS also align with the GHS, but OSHA does not enforce these sections. They concern matters regulated by other agencies.

SDS Descriptions

Section 1, Identification-identifies the chemical, its recommended uses, and supplier contact information.

Section 2, Hazard(s) identification-identifies hazards of the chemical presented on the SDS and appropriate warning information associated with those hazards.

Section 3, Composition/information on ingredients-identifies ingredients in the product indicated on the SDS, including impurities and stabilizing additives, including information about substances, mixtures, and all chemicals where a trade secret is claimed.

Section 4, First-aid measures-describes the initial care that untrained responders should give to someone exposed to a chemical.

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

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

Section 7, Handling and storage- lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls and personal protection- indicates exposure limits, engineering controls, and personal protective measures to minimize employee exposure.

Section 9, Physical and chemical properties- identifies physical and chemical characteristics associated with the substance or mixture.

Section 10, Stability and reactivity- describes the chemical's stability and reactivity hazards.

Section 11, Toxicological information- identifies toxicological and health-effects information, or indicates that such data is not available.

Section 12, Ecological information (non-mandatory under OSHA)- provides information for evaluating a chemical's environmental impact if it were released into the environment.

Section 13, Disposal considerations (non-mandatory under OSHA)- provides guidance for proper disposal, safe handling, and recycling or reclamation of a chemical or its container.

Section 14, Transport information (non-mandatory under OSHA)- provides guidance on classification information for shipping and transporting hazardous chemicals by road, air, rail, or sea.

Section 15, Regulatory information (non-mandatory under OSHA)- identifies product safety, health, and environmental regulations not indicated anywhere else on an SDS.

Section 16, Other information- indicates the date of preparation or last revision.

Training Employees

Employee SDS training should cover the following items before each initial work assignment:

- a list of chemical hazards they will encounter in their immediate work areas;
- where to find SDSs, (the location of the physical SDS binder or the location of electronic SDSs, how to access them, and how to obtain hard copies);
- information contained in the SDSs for each chemical to which employees will be exposed (including how the information, such as pictograms and precautionary statements on the SDSs, relates to chemical labels and controls or personal protective equipment that should be used).

Provide additional training when a new chemical hazard is introduced. As with any required training, document what was covered in training, including when, where, and by whom the training was provided, as well as who attended.

Review Questions

1. OSHA developed the HCS to ensure that chemicals are evaluated for hazards, and that understandable information about those hazards is communicated to employees and employers.
 - a. True
 - b. False
2. Electronic access to SDSs can be used if employers train employees how to access the sheets.
 - a. True
 - b. False
3. How many sections must be included in the SDS?
 - a. 3
 - b. 6
 - c. 16
 - d. 24
4. When must employees receive training in hazard communication?
 - a. Before they begin an assigned job
 - b. When the chemical hazards change
 - c. a and b

Answers

1. (a) True; 2. (a) True. If providing electronic access to SDSs, employers must also back up the electronic system where SDSs are kept and make hard copies of the SDSs accessible to employees and medical personnel; 3. (c) 16; 4. (c) a and b.



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1-800-252-7031, Option 2

*The Texas Department of Insurance,
Division of Workers' Compensation (DWC)-Workplace Safety
P.O. Box 12050
Austin, TX 78711-2050*

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