HazCom - The Right to Understand

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Course Overview

Learning Objectives

- Learn the 5 elements under OSHA's new standard
- Learn the 2 signal words that indicate severity of the hazard
- Review the pictograms associated with chemical hazards
- Review the 16 sections on the new Safety Data Sheets (SDS)

Glossary

HazCom

Hazard Communication Standard (HCS)

GHS

Globally Harmonized System of Classification & Labeling of Chemicals

OSHA

Occupational Safety & Health Administration

Pictogram

A pictorial representation of the hazard

SDS

Safety Data Sheets (formerly called MSDS)

Expand and review the content above before moving on.

Note: the title of Hazard Communication is a bit misleading.

1. **The previous HazCom standard was last revised in 1994**
2. **In 2012, OSHA adopted new GHS-based HazCom regulations that standardized language and formatting on SDS**
3. **Therefore, this is current information and we follow OSHA's lead by calling this training Hazard Communication**

CONTINUE

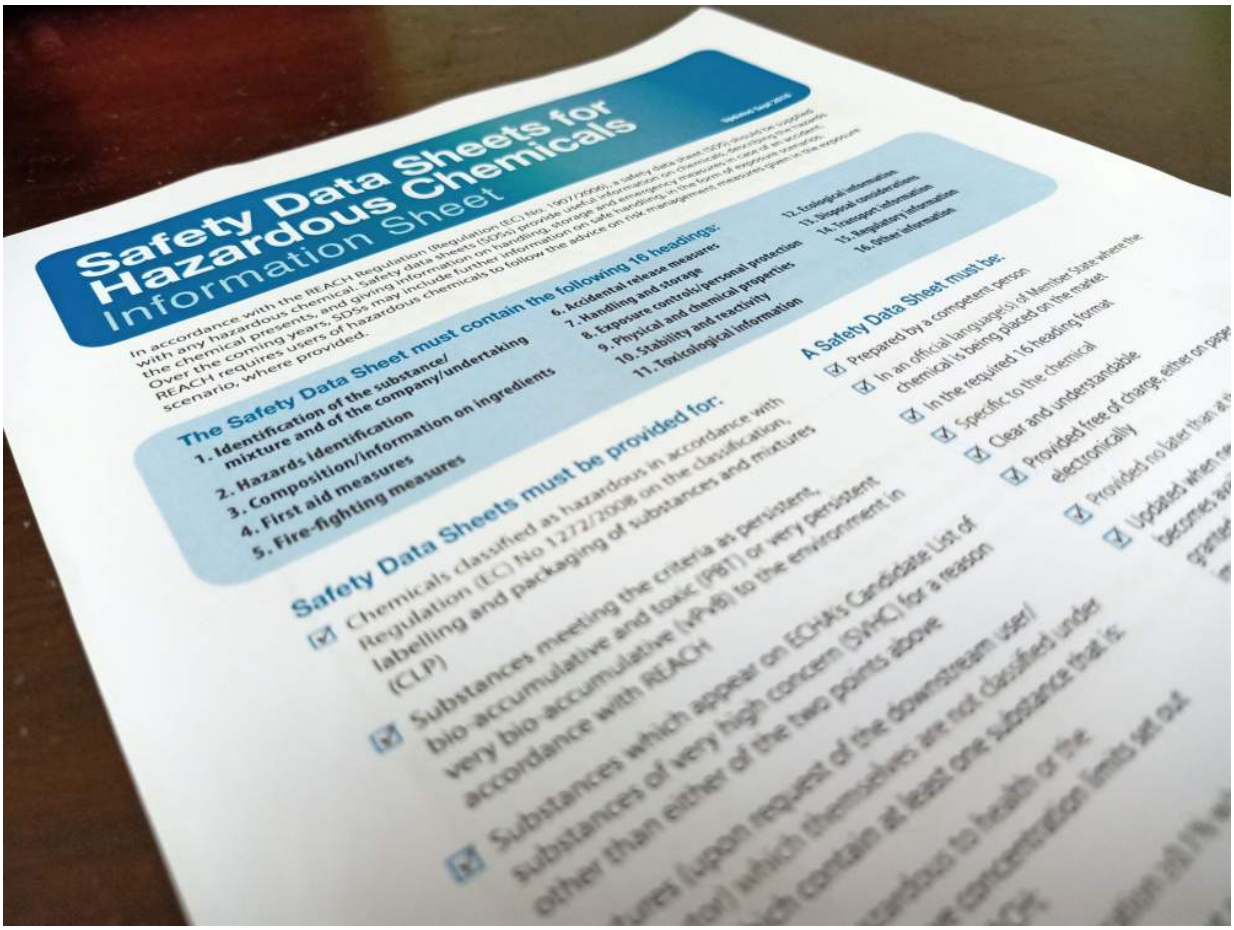
Lesson 2 of 6

Safety Data Sheet

The new Safety Data Sheets, formerly known as MSDS, have 16 standardized sections. Most SDS will be longer and more technical in nature due to the requirement for specific information in each section.

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets to communicate the hazards of hazardous chemical products.

As of June 2015, the HCS will require new SDS's to be in a uniform format, include the section numbers, headings, and associated information under the headings.



Section 1: Identification

Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2: Hazards Identification

Includes all hazards regarding the chemical; required label elements.

Section 3: Composition/Information on Ingredients

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 incompatibilties.

Section 8: Exposure Controls/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 characteristics.

Section 10: Stability and Reactivity

Lists chemical stability and possibility of hazardous reaction.

Section 11: Toxicological Information

Includes routes of exposure; related symptoms; acute and chronic effects; numerical measures of toxicity.

Section 12: Ecological Information

Heading is required, information as applicable.

Section 13: Disposal Considerations

Heading is required, information as applicable.

Section 14: Transport Information

Heading is required, information as applicable.

Section 15: Regulatory Information

Heading is required, information as applicable.

Section 16: Other Information

Includes the date of preparation or last revision.

Expand and review the content above before moving on.

HazCom Standard

Globally Harmonized System (GHS) of Classification and Labeling of Chemicals

There are five new elements you need to understand within OSHA's new HazCom Standard.

Signal Words

Danger = Highest Hazard Chemicals
Warning = Lower (Medium) Hazard Chemicals
No Signal Word = Low Hazard Chemicals

Pictograms

A graphic (pictorial) representation of the hazard

Hazard Classification

Manufacturers are now required to "classify" their products according to the "intrinsic hazards of the ingredients that make up that product." Things like; flammable liquids, corrosive to metals, explosive, etc.

Hazard Statements

"Standardized," "assigned" phrases that describe the hazard. Things like; 'extremely flammable aerosol and vapor," or "toxic and corrosive liquids."

Precautionary Statements

Additional information that provides measures to be taken to minimize or prevent adverse effects of the hazard. There are four types of Precautionary Statements: Prevention, Storage, Disposal and Response to exposure or spillage of a Hazardous Material.

Expand and review the content above before moving on.

There are three GHS Hazard Classification elements.

HEALTH HAZARDS | PHYSICAL HAZARDS | ENVIRONMENTAL HAZARDS

- Acute Toxicity
- Carcinogenicity
- Skin Corrosion/Irritation
- Germ Cell Mutagenicity
- Aspiration Toxicity
- Reproductive Toxicity
- Serious Eye Damage/Eye Irritation
- Respiratory or Skin Sensitization
- Target Organ Systemic Toxicity - Single Exposure
- Target Organ Systemic Toxicity - Repeated Exposure

HEALTH HAZARDS | PHYSICAL HAZARDS | ENVIRONMENTAL HAZARDS

- Corrosive to Metals
- Explosives
- Flammable Gases
- Flammable Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Reactive Substances
- Substances which, in contact with water, emit Flammable Gases
- Pyrophoric Liquids
- Pyrophoric Solids
- Self-Heating Substances
- Oxidizing Liquids

- Oxidizing Solids
- Organic Peroxides

HEALTH HAZARDS | PHYSICAL HAZARDS | ENVIRONMENTAL HAZARDS

- Acute Aquatic Toxicity
- Bioaccumulation Potential
- Chronic Aquatic Toxicity
- Hazardous to the Aquatic Environment
- Rapid Degradability

Select and review each tab above before moving on.

Label Elements

Classification is the starting point for the GHS. Once a chemical has been classified, the hazard(s) must be communicated to target audiences.

As in existing systems, labels and Safety Data Sheets (SDS) are the main tools for chemical hazard communication.

Let's review the required Label Elements (official OSHA definitions). As of June 1, 2015 all labels are required to have seven sections.

1. **Product Identifier (ingredient disclosure)**: name or number used for a hazardous product on a label or in the SDS.
2. **Supplier Identification**: the name, address and telephone number should be provided on the label.
3. **Precautionary Statements**: Precautionary information supplements the hazard information by briefly providing measures to be taken to minimize or prevent adverse effects from physical, health or environmental hazards. First aid is included in the precautionary information.

   There are four types of Precautionary Statements covering:

   - Prevention
   - Response in cases of accidental spillage or exposure
   - Storage
   - Disposal

4. **Hazard Pictograms**: a composition 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.

   - Background Information
   - Health Hazard
   - Environment (non-mandatory)
   - Exclamation Mark
   - Exploding Bomb
   - Skull and Crossbones
   - Corrosion
   - Flame
   - Flame over Circle
   - Gas Cylinder

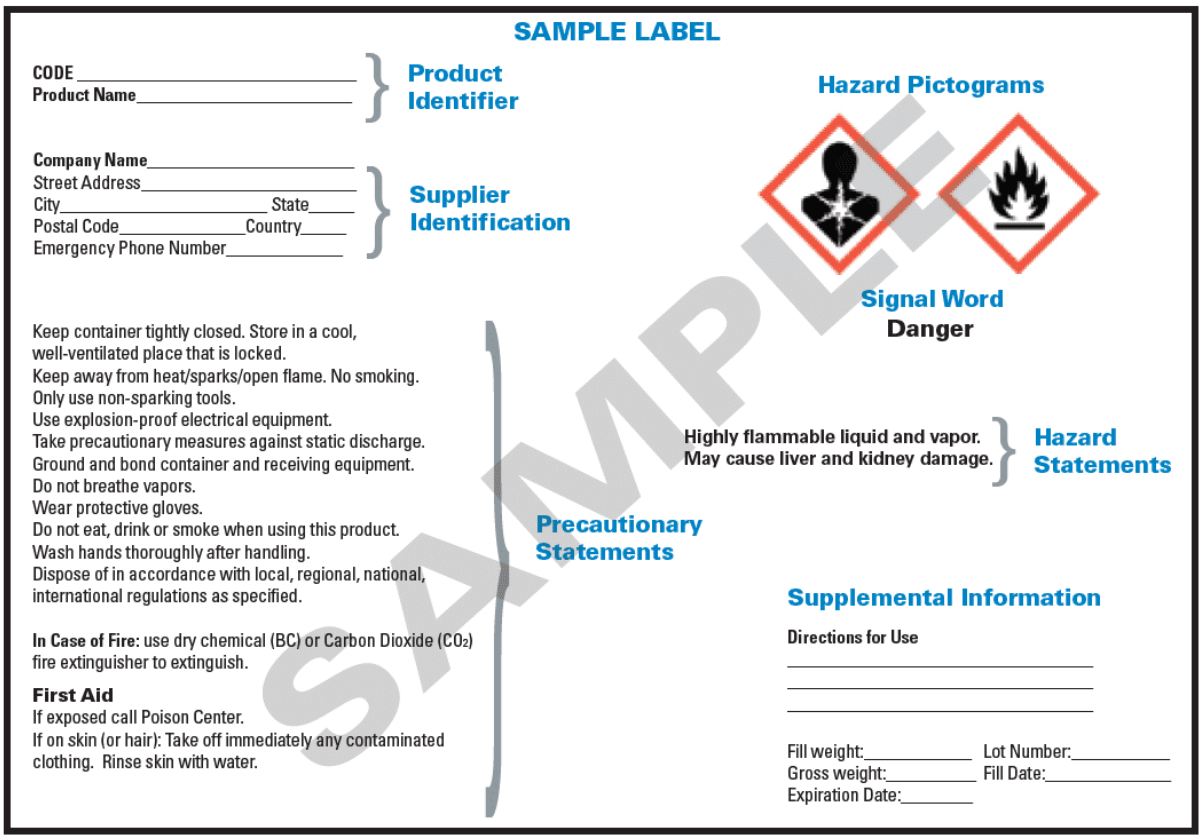
5. **Signal Words**: the signal word indicates the relative degree of severity of a hazard. The signal words used in the GHS are:

- **Danger** for the more severe hazards
- **Warning** for the less severe hazards

Signal words are standardized and assigned to the hazard categories within endpoints. Some lower level hazard categories do not use signal words. Only one signal word corresponding to the class of the most severe hazard should be used on a label.

6 **Hazard Statements**: are standard and assigned phrases that describe the hazard(s) as determined by hazard classification. An appropriate statement for each GHS hazard should be included on the label for products possessing more than one hazard.

7 **Supplemental Information**: information such as; directions for use, weight, fill date, and expiration date.



Workplace or Secondary Container Labels

OSHA allows Workplace or Secondary Container labels to be the same as the shipping label or they can contain only Product Identifier and "Words, pictures, symbols or combination thereof" that provides general information about the hazard(s) of the chemicals.

1910.1200(f)(6):Workplace labeling. Except as provided in paragraphs (f)(7) and (f)(8) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either.

1910.1200(f)(6)(i)The information specified under paragraphs (f)(1)(i) through (v) of this section for labels on shipped containers; or,

1910.1200(f)(6)(ii)Product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

CONTINUE

Post Test

Now it's time to show what you've learned after reviewing the content provided in this course. This brief post test only has four questions. You must answer each question correctly in order to successfully complete this course.

Question

01/04

Select the five new elements in the new standard.

- [ ] Signal Words
- [ ] Hazard Classifications
- [ ] Pictograms
- [ ] Hazard Statements
- [ ] Precautionary Statements
- [ ] Safety Data Sheets (SDS)

Question

02/04

Select the correct description for Danger & Warning (Signal Words).

- ◯ Highest chemical hazard and medium hazard chemicals
- ◯ Regular residential strength chemicals

Question

03/04

What is a Pictogram? *(Select all that apply)*

- [ ] A graphic representation of the chemical hazard
- [ ] A symbol on a white background framed within a red border
- [ ] There can be more than one pictogram associated with a chemical

Question

04/04

How many sections does the Safety Data Sheet (SDS) have?

- 6
- 12
- 16
- 20

Conclusion

Congratulations, you have completed the HazCom - The Right to Understand course.

Select the Exit Course link in the upper right corner to return to HealthStream.