Training Solutions, Delivered!

UNDERSTANDING OSHA'S HAZARD COMMUNICATION STANDARD AND THE GHS

Concise Version

Leader's Guide, Fact Sheet & Quiz

Item Number: 5416

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.

b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.

c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.

d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes *before* the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.

b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.

c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.

d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

5416 Understanding OSHA's Hazard Communication Standard and the GHS (Concise)
FACT SHEET

LENGTH: 16 MINUTES **PRODUCTION YEAR: 2024**

PROGRAM SYNOPSIS:
Hazardous chemicals are essential to a wide variety of industries, impacting everything from manufacturing and agriculture to consumer goods and energy. Because of the dangers presented by hazardous chemicals, OSHA developed the Hazard Communication Standard, 29 CFR 1910.1200, also known as the HCS. The HCS works hand in hand with the GHS, the Globally Harmonized System of Classification and Labeling of Chemicals.

In 2012, the HCS was significantly updated to bring the regulation more in line with the international standards of the GHS. Recently, there have been additional changes. OSHA published a Final Rule on May 20, 2024, to revise the HCS, aligning it primarily with the 7th Revised Edition of the GHS. This program is designed to help employees understand the three key elements of the GHS: hazard classification, container labeling, and Safety Data Sheets.

PROGRAM OBJECTIVES:
After watching the program, the viewer will be able to explain the following:
- What the written hazard communication plan and the Globally Harmonized System are;
- What is involved in hazard classification;
- What information can be found on GHS chemical container labels;
- The importance of pictograms, signal words, and hazard and precautionary statements;
- Why Safety Data Sheets are important to chemical safety.

PROGRAM OUTLINE:

BACKGROUND
- Hazardous chemicals are essential to a wide variety of industries, impacting everything from manufacturing and agriculture to consumer goods and energy. The Occupational Safety and Health Administration, "OSHA," estimates that about 32 million workers in more than 3.5 million workplaces are regularly exposed to hazardous chemicals.
- While these substances are essential, they can also be very dangerous due to their physical or chemical properties.
- Because of the dangers presented by hazardous chemicals, OSHA developed the Hazard Communication Standard, 29 CFR 1910.1200, also known as the HCS. The HCS works hand in hand with the GHS, the Globally Harmonized System of Classification and Labeling of Chemicals.
- In 2012, the HCS was significantly updated to bring the regulation more in line with the international standards of the GHS. Recently, there have been additional changes. OSHA published a Final Rule on May 20, 2024, to revise the HCS, aligning it primarily with the 7th Revised Edition of the GHS. The Final Rule is effective July 19, 2024.
- Whether you're a seasoned professional or just starting out, understanding how to handle these chemical substances safely is essential for maintaining a secure work environment.
- In this program, we will provide an overview of the key components of your organization's Hazard Communication Program and the GHS so you will be better prepared to work safely with and around chemicals in your workplace.

THE WRITTEN PLAN
- OSHA's HCS regulation requires companies to develop a Hazard Communication Program to ensure that employees understand the hazards associated with chemicals in their workplace and take appropriate precautions.
- The program must include a written plan. This written plan discusses items such as container labeling, the collection, storage, and availability of Safety Data Sheets, and a listing of all hazardous chemicals on site as well as their location.
- The written plan will also detail specific guidelines for the training of employees. For example, employees will receive specific training based on the hazardous chemicals to which they may be exposed and learn how to recognize warning signs of leaks or spills.
- The physical and health risks of the chemicals used in the work area and how to use safe work practices and personal protective equipment to avoid exposure are also covered in the training. Additionally, details will be provided on how to

read important information on chemical labels and Safety Data Sheets (SDS), as well as where to find these documents and the Written Plan on site.

- The written plan is an important document which all employees have a right to review upon request

THE GLOBALLY HARMONIZED SYSTEM

- OSHA's Hazard Communication Standard was first enacted in 1983. However, recent changes have brought the regulation more in line with the international standards found in the Globally Harmonized System, or GHS for short. These changes are all about improving how we classify and communicate hazards associated with chemicals, making safety information clearer and more consistent globally.
- Created by the international community and adopted by the United Nations, the Globally Harmonized System provides a single set of harmonized criteria for classifying chemicals and mixtures according to their health, physical, and environmental hazards.
- The GHS enhances hazard communication by defining key elements like signal words, pictograms, and precautionary statements, which are displayed on container labels and Safety Data Sheets.
- A reference guide to the GHS, which includes a detailed explanation of this information, has been published by the United Nations. It is titled, "The Globally Harmonized System of Classification and Labeling of Chemicals". However, it is commonly called "The Purple Book".
- While chemical workers don't need to fully grasp the entire Globally Harmonized System, they must understand the specific elements used to communicate the hazards of the chemicals in their workplace.
- We will now discuss the three major components of the Globally Harmonized System: hazard classification, container labeling, and Safety Data Sheets.

HAZARD CLASSIFICATION

- The first component of the Globally Harmonized System we will discuss is hazard classification.
- Classification is the process of assigning a chemical or mixture to a hazard or danger category based on its health and physical hazards. Physical hazards are the properties of a gas, liquid, or solid that could adversely affect you or the workplace in a physical way, such as a fire or explosion.
- Health hazards are determined by the properties of a substance or mixture that can cause illness or injury to the skin, eyes, lungs, or other organs and body parts.
- The revisions to OSHA's HCS will require manufacturers and importers to reclassify aerosols, desensitized explosives, and flammable gases in accordance with the new classification criteria and make corresponding revisions to SDSs and labels.
- Because there is such a large variety of hazardous chemicals, there is also a large variety of physical and health hazards presented by these chemicals. To better communicate the specific information needed by chemical workers, the GHS has created multiple classes of hazards. There are 17 classes of physical hazards and 10 classes of health hazards.

PHYSICAL AND HEALTH HAZARDS

- The 17 classes of physical hazards include explosives, flammable gases, aerosols and chemicals under pressure, oxidizing gases, gases under pressure, flammable liquids, flammable solids, and self-reactive chemicals.
- Other health hazard classes include carcinogenicity, reproductive toxicology, specific target organ toxicity from a single exposure, specific target organ toxicity from repeated exposures, and aspiration hazard.
- Other physical hazard classes include pyrophoric liquids, pyrophoric solids, self-heating chemicals, chemicals emitting flammable gases when contacting water, oxidizing liquids, oxidizing solids, organic peroxides, and chemicals corrosive to metal.
- The 17th physical hazard class, "desensitized explosives", has been added to describe solid or liquid explosive chemicals that have an agent added to them in order to stabilize the chemical.
- Even though "desensitized explosives" is a new hazard classification, the explosion hazards were and are well known and should have been included in prior hazard training. For example, should the water or other wetting solution dry out, an explosion could occur.
- The 10 classes of health hazards include acute toxicity, skin corrosion and irritation, serious eye damage or eye irritation, respiratory or skin sensitization, and germ cell mutagenicity. Other health hazard classes include carcinogenicity, reproductive toxicology, specific target organ toxicity from a single exposure, specific target organ toxicity from repeated or prolonged exposures, and aspiration hazards.

- It's important for you to understand that the existence of the various GHS hazard classes makes it easier for you to receive the specific training and important information you need to work safely with the chemicals located in your workplace.

CONTAINER LABELS

- The second component of the Globally Harmonized System is container labels.
- Container labels will provide information on the relevant hazard classifications of the chemical. Labels and Safety Data Sheets (SDSs) are often the first indication to a worker that they are handling a hazardous chemical, so it is imperative that labels and SDSs be as accurate and complete as possible.
- After classifying the hazardous chemical, the manufacturer, importer, or distributor will consult Appendix C of 29 CFR 1910.1200 to determine the appropriate information to include on the label. This appendix has been updated to include the new and revised hazard classes and categories.
- Labels for a hazardous chemical must contain the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party, the product identifier, a signal word, hazard statements, precautionary statements, and applicable pictograms.
- The HCS has been updated to include changes to labels for small containers in 1910.1200(f)(12).

PICTOGRAMS

- Container labels include additional information in the form of pictograms, signal words, and hazard and precautionary statements.
- Pictograms are standardized graphics, sometimes called harmonized hazard symbols, which are assigned to a specific hazard class or category. Pictograms on a GHS label may convey health, physical, or environmental hazard information.
- However, keep in mind that there is not a unique pictogram for each individual hazard within each class. In other words, one pictogram may be used to represent several hazards within a class.
- There are nine pictograms that can be displayed on GHS labels to represent the hazards of a chemical.
- Pictograms are also used when chemicals are being transported. However, the pictograms used during transport are different from those found on labels.
- Transportation pictograms still feature the harmonized hazard symbols. However, the background, border, and colors used on the transport pictogram come from the United Nations Recommendations on the Transport of Dangerous Goods.
- Your specific chemical training as well as your company's written plan will include an explanation of the pictograms associated with the chemicals in your work environment. This knowledge helps workers quickly identify a chemical's hazards and is the first step to taking proper precautions to work safely.

SIGNAL WORDS

- There are two signal words that can appear on GHS container labels.
- The words "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard. The signal word "Danger" represents a more severe hazard than the signal word "Warning".
- Only one signal word, corresponding to the class of the most severe hazard, should be used on a chemical label.

HAZARD & PRECAUTIONARY STATEMENTS

- Other standardized communication elements found on GHS container labels are Hazard Statements and Precautionary Statements.
- Hazard Statements are standard phrases assigned to a hazard class and category that concisely describe the nature of the hazard. For products which pose more than one risk, an appropriate hazard statement for each GHS hazard will be included on the chemical label.
- Chemical labels will also contain Precautionary Statements. Precautionary Statements are standardized explanations of the measures to be taken to minimize or prevent adverse effects.
- Appendix C to 1910.1200 includes information regarding updating select hazard and precautionary statements for clearer and more precise hazard information. It also outlines guidance on desensitized explosives.

SAFETY DATA SHEETS

- Let's now turn our attention to the third primary source of information on chemical hazards and how to protect yourself from exposures: Safety Data Sheets.
- All Safety Data Sheets will have 16 sections, in specific order, so workers will always know which section will provide which data no matter what chemical you are referencing.
- OSHA estimates that almost every SDS will need to be revised due to the provisions in the latest update. It's important that SDSs contain the most up-to-date required information for the safety of everyone who will interact with the chemical.
- Your facility maintains a Safety Data Sheet for each chemical in the workplace as part of its Hazard Communication Program. You should review the SDS before working with any chemical or any time you have concerns about safety issues. Always ask your supervisor if you have any questions about a chemical label or Safety Data Sheet.
- And of course, always wear the proper protective equipment specified by the container label or Safety Data Sheet. This often includes wearing gloves, protective clothing, and goggles with a face shield. Respiratory protection may also be required to avoid breathing in hazardous fumes. If you are unsure about the required PPE for any chemical, stop and ask your supervisor.

CONCLUSION

- In this program, we have discussed OSHA's Hazard Communication Standard and its requirement for employers to create a written "Hazard Communication Program."
- We also discussed OSHA's requirements related to hazard classification, container labels, safety data sheets, and employee training.
- Perhaps most importantly, we have made it clear that all workers have a "Right-To-Know" about the chemical hazards in their workplace and that the Hazard Communication Program is designed to do just that.
- Working with hazardous chemicals involves understanding their risks, following stringent safety protocols, using appropriate PPE, and providing proper training. Adhering to regulations and best practices helps protect health and safety in environments where these chemicals are handled.

ANSWERS TO THE REVIEW QUIZ

1. a
2. b
3. a
4. a
5. b
6. a
7. a
8. a
9. a

UNDERSTANDING OSHA'S HAZARD COMMUNICATION STANDARD AND THE GHS (CONCISE)
REVIEW QUIZ

Name_____Date_____

The following questions are provided to determine how well you understand the information presented in this program.

1. Because of the dangers presented by hazardous chemicals, OSHA developed the Hazard Communication Standard, 29 CFR 1910.1200, also known as the HCS.

a. True
b. False

2. The written Hazard Communication Plan is an important document which some employees have access to for review at certain times of the year.

a. True
b. False

3. The Globally Harmonized System provides a single set of harmonized criteria for classifying chemicals and mixtures according to their health, physical, and environmental hazards.

a. True
b. False

4. Health hazards are determined by the properties of a substance or mixture that can cause illness or injury to the skin, eyes, lungs, or other organs and body parts.

a. True
b. False

5. “Desensitized explosives” is a new hazard classification with previously unknown explosion hazards that were not included in prior hazard training.

a. True
b. False

6. Some of the things required on hazardous chemical container labels are the product identifier, a signal word, hazard statements, and applicable pictograms.

a. True
b. False

7. There are nine pictograms that can be displayed on GHS labels to represent the hazards of a chemical.

a. True
b. False

8. The signal word “Danger” represents a more severe hazard than the signal word “Warning”.

a. True
b. False

9. Safety Data Sheets should be reviewed before working with any chemical or any time you have concerns about safety issues.

a. True
b. False