

The Joint Commission: Hazard Communication

Hazard Communication

Lesson Information

Purpose

To provide healthcare workers with information to increase their knowledge and to help them meet the requirements of The Joint Commission, Occupational Safety & Health Administration, and other regulatory bodies, with the goal of providing safe, competent, and quality patient care.

Abstract

The Occupational Safety & Health Administration (OSHA) reports that millions of workers come in contact with chemical products on the job. Sometimes this contact with chemicals, or exposure, causes only mild signs and symptoms like skin rashes. Other times, exposure may cause serious, permanent injury or even death. To help prevent these injuries, the Occupational Safety & Health Administration requires healthcare organizations to develop a Hazard Communication Program. The program must include:¹

- A list of hazardous chemicals present in your workplace.
- Appropriate labeling of containers of chemicals.
- Distribution of material safety data sheets.
- Employee training about hazards of chemicals and proper protective measures.

Additionally, The Joint Commission requires a written plan for hazardous material and waste. The Joint Commission requirements contains many of the elements described in the Occupational Safety & Health Administration's standards.² The purpose of The Joint Commission's Hazardous Material and Waste Plan is for the organization to identify ways to minimize risk of unsafe use and improper disposal of hazardous materials.

The Occupational Safety and Health Administration (OSHA) modified the Hazard Communication Standard to align with the Global Harmonized System of Classification and Labeling of Chemicals (GHS). The changes are part of an international effort led by the United Nations to create a Global Harmonized System (GHS) for international identification of chemicals and communication of hazards.³

Key changes include:

- New classification of chemicals
- New hazard symbols
- New labels and labeling standards
- Use of Safety Data Sheets with a strict order of presentation of information about chemicals. These will replace Material Safety Data Sheets.

This lesson describes the purpose of the Hazard Communication Program and presents the changes that have been implemented to OSHA's Hazard Communication Standard with the adoption of the Global Harmonized System (GHS).

Objectives

Upon completion of this lesson, you will be able to:

1. Recall the purpose of the Hazard Communication Program.
2. Identify the changes to the Hazard Communication Standard with the adoption of the GHS.
3. Define hazardous materials.

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Introduction

The Occupational Safety & Health Administration (OSHA) reports that millions of workers come in contact with chemical products on the job. Sometimes this contact with chemicals, or exposure, causes only mild signs and symptoms like skin rashes. Other times, exposure may cause serious, permanent injury or even death. To help prevent these injuries, the Occupational Safety & Health Administration requires healthcare organizations to develop a Hazard Communication Program. The program must include:¹

- A list of hazardous chemicals present in your workplace.
- Appropriate labeling of containers of chemicals.
- Distribution of material safety data sheets.
- Employee training about hazards of chemicals and proper protective measures.

Additionally, The Joint Commission requires a written plan for hazardous material and waste. The Joint Commission requirements contains many of the elements described in the Occupational Safety & Health Administration's standards.² The purpose of The Joint Commission's Hazardous Material and Waste Plan is for the organization to identify ways to minimize risk of unsafe use and improper disposal of hazardous materials.

The Occupational Safety and Health Administration (OSHA) modified the Hazard Communication Standard to align with the Global Harmonized System of Classification and Labeling of Chemicals (GHS). The changes are part of an international effort led by the United Nations to create a Global Harmonized System (GHS) for international identification of chemicals and communication of hazards.

Key changes include:

- New classification of chemicals
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- New labels and labeling standards, and
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This lesson describes the purpose of the Hazard Communication Program and presents the changes that have been implemented to OSHA's Hazard Communication Standard with the adoption of the Global Harmonized System (GHS).

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3. Define hazardous materials.

The Purpose of the Hazard Communication Program

Most chemicals that healthcare organizations use can be harmful if they are not used properly. The Hazard Communication Standard ensures that your employer trains and educates you and other employees about the proper use of chemicals. The standard is based on the Occupational Safety & Health Administration's belief that all employees have the right to work in a safe environment.

The Hazard Communication Standard applies to companies that manufacture hazardous chemicals and companies that purchase and use them.

The standard states that companies that make chemicals should:

- Determine the harmful effects of each chemical.
- Label the chemical with information that describes the physical and health problems it may cause.
- Provide Safety Data Sheets (SDS) about the chemical to those who purchase the product.¹ Material safety data sheets have been replaced by new, revised Safety Data Sheets based on the revisions to the Hazard Communication Standard (HCS) and the Global Harmonized System (GHS).³

Hazard Communication Program in Your Organization

The Occupational Safety & Health Administration requires all healthcare organizations to tell employees about health risks associated with chemicals used on the job. The Hazard Communication Program developed by your organization contains information about these risks. The program should also explain how employees can identify hazardous chemicals and protect themselves from harm while they are using the chemicals.¹

Required Employee Training

Your healthcare organization should go beyond simply developing a Hazard Communication Program. In fact, the organization is required by the Occupational Safety & Health Administration to also provide education and training to you about its program. Training is required during the initial orientation to your work area and when any new physical or health hazards are introduced into your work area.¹

What You Need to Know

During your training, make sure that you find out where your organization's Hazard Communication Program is outlined. The Hazard Communication Program should include¹:

- A list of hazardous materials that are used, stored, or produced by the healthcare organization
- An explanation of labels used on chemical hazards and what they mean

- Policy enforcing the use of safety data sheets within the organization
- An explanation about how employees will be trained
- Measures taken to protect employees from harm

Additional Training for Using Hazardous Chemicals

During training, your employer should explain how the organization monitors for the presence or accidental release of hazardous chemicals in your work area. You will be shown how to protect yourself against the harmful effects of the chemicals that you use. For instance, you will be shown how to use personal protective equipment. Examples of this include masks, gloves, goggles, splash-resistant disposable gowns, and other items that protect your skin, clothing, lungs, and eyes. You will also learn how your organization uses work practice controls, or processes, to limit or eliminate your exposure to hazardous chemicals.

Click [Hazard Communication Standard](#) to find out more about the Occupational Safety & Health Administration's rules.



Did You Know?

Hospitals may offer the opportunity to take advanced training (HAZWOPER- Hazardous Waste Operations and Emergency Response Training) to become part of an internal organizational chemical emergency response team.⁴

Quick Check: Hazardous Communication Program

Select the correct answer then click **Check Answer**.

Question 1

Your organization is not required to educate you about the risk of harm that you may experience when handling hazardous chemicals.

- True
- False

Check Answer Reset Choices Next Question

Question 1 of 1
Tries Remaining: 1

ANSWER:

Select the correct answer then click **Check Answer**.

Question 1

Your organization is not required to educate you about the risk of harm that you may experience when handling hazardous chemicals.

- True
- ✓ False

 Check Answer  Reset Choices Next Question 

Question 1 of 1

Tries Remaining: 0

That's correct. The Occupational Safety & Health Administration requires your organization to educate you about the harm that can occur when you handle hazardous chemicals.

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Definition of Hazardous Chemicals

According to the Occupational Safety & Health Administration, hazardous chemicals are chemicals that present a physical hazard or a health hazard to employees.¹ One of the revisions to the Hazard Communication Standard involves classifying chemicals based on specific criteria for health and physical hazards.⁵

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Click the arrows to progress through the slideshow.

Physical Hazards

A physical hazard refers to chemicals that may:

- Explode
- Catch fire
- React violently in some way





Health Hazards



A health hazard may cause acute or chronic health problems for anyone exposed to the hazard.

- Acute problems are short-term signs and symptoms that appear immediately and disappear when you are not actively exposed to the chemical. Redness, itching on the skin, and coughing and sneezing are some examples of this.
- Chronic, or long-term problems, may appear after repeated exposure to a chemical. Some examples are allergies, cancer, or kidney or liver damage.

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Examples of Hazardous Chemicals

The table lists types of chemicals that may cause health and physical problems.

Roll your mouse pointer over each column in the table to view examples of these chemicals that are used in healthcare organizations.

Chemicals That May Cause Health Hazards	Chemicals That May Cause Physical Hazards
<ul style="list-style-type: none"> ▪ Poisonous agents ▪ Materials that can cause cancer ▪ Corrosive agents ▪ Sensitizers 	<ul style="list-style-type: none"> ▪ Combustible liquids ▪ Compressed gases ▪ Explosives ▪ Flammable substances

Roll your mouse pointer over each column in the table to view examples of these chemicals that are used in healthcare organizations.

Chemicals That May Cause Health Hazards	Chemicals That May Cause Physical Hazards
<p>Examples of Chemicals that May Cause Health Hazards</p> <ul style="list-style-type: none"> ▪ Corrosive agents: These agents contain chemicals that can destroy metal and other chemicals and can burn skin. Examples include acids such as nitric, hydrochloric, and sulfuric acid, and bases such as ammonia and sodium hydroxide. ▪ Sensitizers: These substances cause allergic reactions in many people after they are exposed to them over and over. Formaldehyde is an example of a chemical that is classified as a sensitizer. 	<p>Examples of Chemicals that May Cause Physical Hazards</p> <ul style="list-style-type: none"> ▪ Flammable substances: These substances are made of chemicals that catch fire easily. They can be a gas, liquid, or solid material. Examples include acetone, hydrogen, and isopropyl alcohol bottles and wipes.

Quick Check: Health Hazards

Select the correct answer then click **Check Answer**.

Question 1

Health problems caused by exposure to hazardous chemicals may be acute or chronic illnesses.

- True
- False

 Check Answer  Reset Choices Next Question 

Question 1 of 1
Tries Remaining: 1

ANSWER:

Select the correct answer then click **Check Answer**.

Question 1

Health problems caused by exposure to hazardous chemicals may be acute or chronic illnesses.

- True
- False

 Check Answer  Reset Choices Next Question 

Question 1 of 1
Tries Remaining: 0

That's correct. Chemicals that are health hazards can possibly cause acute or chronic health problems to employees when they are exposed to them.

Safety Data Sheets (SDS)

Your organization uses many chemicals that may put you at risk for physical and health problems. The precautions for using each chemical may be different. Treatments for accidental exposure may also be

different for each chemical. Because of such differences, the Occupational Safety & Health Administration requires that chemical manufacturers provide Safety Data Sheets to organizations that purchase the chemicals.³

Safety Data Sheets align with the Global Harmonized System (GHS) and replaced Material Safety Data Sheets (MSDS). The required information appears in a specified format in a specified sequence.

- Employers must make Safety Data Sheets (SDS) readily accessible to employees.
- SDS contain important safety information about the hazardous chemicals.
- SDS follow a different format than the Material Safety Data Sheets that they replaced.
- SDS format requires 16 specific sections; 12 are mandatory and four are non-mandatory.

SDS Format
Section 1. Identification
Section 2. Hazard(s) identification
Section 3. Composition/information on ingredients
Section 4. First-Aid measures
Section 5. Fire-fighting measures
Section 6. Accidental release measures
Section 7. Handling and storage
Section 8. Exposure controls/personal protection
Section 9. Physical and chemical properties
Section 10. Stability and reactivity
Section 11. Toxicological information
Section 12. Ecological information
Section 13. Disposal considerations
Section 14. Transport information
Section 15. Regulatory information
Section 16. Other information, including date of preparation or last revision
Sections 12-15 may be included in the SDS, but are not required by OSHA.

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Safety Data Sheets (SDS)

Safety Data Sheets (SDS) provide quick reference information for workers who handle hazardous chemicals. The company that prepares the SDS is responsible for making sure that all information on the sheet is correct.

When using SDS and reading labels:

- Know where to find the SDS in your work setting.
- Be sure the label and the SDS have the same information; for example, the product identifier.
- A chemical can have more than one hazard, so read the label on a chemical before using it to be sure you take steps to protect yourself and others from exposure.
- Refer to the label and/or SDS when storing a hazardous chemical to ensure it is stored properly.
- Look at the hazard label first to quickly find information about first aid in the event of an exposure.
- Review your facility's hazard communication policies and procedures in order to prevent injury and maintain the safety of yourself and others in the work environment.

For more information on Safety Data Sheets (SDS), click [here](#).

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Quick Check: Information about Emergency Procedures

Select the correct answer then click Check Answer

Question 1

The purpose of the Safety Data Sheet is to provide important information about hazardous chemicals in order to protect the safety of the worker using, handling, storing, and transporting the chemical in the work environment.

- True
- False

True. The purpose of the Safety Data Sheet is to provide important information about hazardous chemicals in order to protect the safety of the worker using, handling, storing, and transporting the chemical in the work environment.

Question 2

To find information about emergency and first aid procedures to help care for someone who has been exposed to a hazardous chemical, you should look on which document?

- Safety Data Sheet (SDS)
- Hazardous chemical inventory list
- The organization's policies and procedures manuals
- The chemical manufacturer's web site

 Check Answer  Reset Choices Next Question 

Question 2 of 2

Tries Remaining: 1

That's correct. Safety Data Sheets (SDS) are the best place to find detailed information about emergency and first aid procedures. These sheets must be available to all employees.

Labels and Warning Signs

To help employees identify chemicals that present physical and health hazards, the Occupational Safety & Health Administration⁵ and The Joint Commission² requires labeling on containers of hazardous chemicals. These containers must be labeled or marked with information that includes¹:

- The identity of the hazardous chemicals
- Appropriate warnings or words, pictures, and symbols that indicate information about the hazards of the chemicals

Labels under the revised Hazard Communication Standard will have harmonized elements that are not subject to variation. The standardized label elements included in the GHS are:⁷

- **Hazard pictograms:** Convey health, physical and environmental hazard information, assigned to a GHS hazard class and category.
- **Signal words:** "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard, assigned to a GHS hazard class and category.
- **Hazard statements:** Standard phrases assigned to a hazard class and category that describe the nature of the hazard.
- **Precautionary statements:** a phrase that describes recommended measures in the event of accidental exposure.
- **Product identifier:** includes product code and name.
- **Supplier identification:** includes company name and address.

[Click here](#) to see a sample label.

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Permissible Exposure to Hazardous Chemicals

The Occupational Safety & Health Administration requires manufacturers to list the dosage or exposure level allowed for each hazardous chemical on the Safety Data Sheet. These levels are usually called permissible exposure levels. The permissible level is the amount of hazardous chemical that an average-sized employee can safely be exposed to in an 8-hour work day.¹

Under the Global Harmonized System (GHS), permissible exposure limits are Section 8 of the Safety Data Sheets. This includes permissible exposure limits (PELs), threshold limit values (TLVs), appropriate engineering controls, and personal protective equipment (PPE).⁶

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Accidental Exposure to Hazardous Chemicals

Accidental exposure to hazardous chemicals can happen to anyone. Examples of ways accidental exposure may occur include:

- Chemicals spilling on your skin or splashing into your eyes or mouth.
- Accidentally swallowing or breathing in a chemical.

Signs and symptoms that occur after a chemical exposure vary depending on the chemical you are exposed to and its dose or strength.

The Safety Data Sheet and the warning labels on the chemical tell you how to handle accidental exposure to the agent. Your organization's policies and procedures manual should explain how to properly document an incident of accidental exposure to chemicals.

Personal Protective Equipment

Wear the personal protective equipment that is listed in your organization's Hazard Communication Program. The Safety Data Sheet also gives information about the type of personal protective equipment you need for each chemical you use in your work area.

Wearing personal protective equipment helps protect you against too much exposure and accidental exposure to hazardous chemicals.

Common personal protective equipment used for hazardous chemicals includes¹:

- Latex or nitrile gloves to protect your hands
- Safety glasses or goggles to protect your eyes
- A face shield to protect your face
- Shoe covers to protect your feet
- Disposable gowns to cover and protect your body

Hazardous Chemical Spills

Accidents happen in the workplace. An employee may accidentally spill a chemical onto the floor or you may discover that a chemical has leaked from its container. In these instances, the Safety Data Sheet gives you information about the best way to clean up the spill or leak. Your organization's Hazard Communication Program should also explain how to clean up spills or leaks.¹

Check your work area for a spill kit and make sure that you know how to use it before you need it. In most cases, however, you cannot safely clean up large spills with a simple spill kit. Check the material safety data sheet for instructions about cleaning up large chemical spills.

Summary

The Occupational Safety & Health Administration requires all healthcare organizations to develop a Hazard Communication Program and to educate its employees about the program.¹ The purpose of a Hazard Communication Program is to protect employees who may come in contact with hazardous chemicals at work. Effective communication about hazards ensures that all employees know how to handle chemicals and how to protect themselves from injury.

The Joint Commission addresses the need for organizations to properly manage hazardous materials in its Environment of Care standards. Surveyors from The Joint Commission or the Occupational Safety & Health Administration may ask to see documentation about how employees are trained to use hazardous chemicals safely. They may also question employees about how to clean up hazardous chemical spills and where to find information about certain chemicals.

The revisions to the Hazard Communication Standard that align with the Global Harmonized System for Classification and Labeling of Chemicals include the following:

- New classification of chemicals
- New hazard symbols
- New labels and labeling standards
- Use of Safety Data Sheets with a strict order of presentation of information about chemicals. These will replace material safety data sheets.

OSHA required training on new label elements (e.g., pictograms and signal words) and SDS format to be completed by December of 2013. Full compliance will begin in 2015.

Contact your educator or manager if you have questions about your organization's Hazard Communication Program.

Click **Take Test** to begin the test.

References

- 1.) The Occupational Safety and Health Administration (OSHA). Hazard Communication (1910.1200). Regulations (Standards 29 CFR). OSHA Web site. https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099. Accessed July 5, 2016.
- 2.) The Joint Commission (TJC). Comprehensive Accreditation Manual for Hospitals. Oakbrook Terrace, IL: Joint Commission Resources; 2016.
- 3.) Occupational Safety & Health Administration (OSHA). Hazard communication. 2012. OSHA Web site. <http://www.osha.gov/dsg/hazcom/index.html>. Accessed July 5, 2016.
- 4.) The Occupational Safety & Health Administration (OSHA). Frequently asked questions: HAZWOPER. OSHA Web site. <http://www.osha.gov/html/faq-hazwoper.html#faq1>. Accessed June 26, 2016.
- 5.) Occupational Safety & Health Administration (OSHA). A guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). OSHA Web site. <https://www.osha.gov/dsg/hazcom/ghsguideoct05.pdf> Accessed June 26, 2016.

General Instructions for Taking Tests

You have chosen to begin the test on:

The Joint Commission: Hazard Communication

There are 10 questions in this test. Be sure you have enough time to complete all questions before you continue. If you exit the test before clicking 'Complete the Test,' your answers to the questions will not be saved. If you leave some questions blank and click, 'Complete the Test,' any unanswered questions will be scored as incorrect.

Tests may include case studies, true/false, and multiple choice questions, including single or multiple answer. Your test score is the percentage of questions answered correctly out of the total.

If you are ready to begin, click **Take Test** in the menu bar above.

You have the option to take this test later. If you would rather take this test later, click **Personal Page** in the menu bar above to return to your list of assigned lessons.

After you achieve a passing score for this test, please click **Evaluation** to complete and submit an evaluation of the activity.

Posttest – Hazard Communication

1. Information about how to clean up hazardous chemical spills and leaks can be found on Safety Data Sheets.
 - A. True
 - B. False
2. You can protect yourself from accidental exposure to hazardous chemicals by wearing the required personal protective equipment throughout the course of the work day.
 - A. True
 - B. False
3. What is the purpose of the Safety Data Sheet?
 - A. To describe how a chemical is made in the factory
 - B. To indicate the location of your organization's Hazard Communication Program
 - C. To state the location of the spill kit for your work area
 - D. To describe how you can safely use hazardous chemicals in your work area
4. What is the definition of hazardous chemicals?
 - A. Chemicals that are a physical or health hazard to employees who are exposed to them
 - B. Chemicals that are used to treat an illness
 - C. All chemicals that are used in a healthcare organization
 - D. Ingredients that have been mixed together by a drug company to be used in patient care
5. According to the Occupational Safety & Health Administration, when should you receive training about the hazardous chemicals used in your work area?
 - A. As soon as you are hired and then every year after that
 - B. During orientation to your work area and whenever new hazardous chemicals are introduced to your work area
 - C. Whenever the organization hires enough new employees to have a training class of ten people
 - D. Whenever your manager schedules you for training
6. Where is the best place to find detailed information about a hazardous chemical that is used in your work area?
 - A. On the container label of the hazardous chemical
 - B. On the Safety Data Sheet
 - C. In the hospital's policies and procedures manual
 - D. By asking your manager how to use the hazardous chemical

7. Which statement best describes the purpose of your organization's Hazard Communication Program?
- A. To improve how healthcare workers communicate with each other about patients
 - B. To protect employees from exposure to hazardous chemicals
 - C. To establish a standard code within your organization for emergencies
 - D. To show healthcare workers how to avoid contamination with bloodborne pathogens
8. Your organization is required to maintain in the workplace, copies of the required Safety Data Sheets for each hazardous chemical and ensure that they are readily accessible during each work shift when you are in your work area.
- A. True
 - B. False
9. What information should your organization's Hazard Communication Program include?
- A. How to identify hazardous chemicals in your work area
 - B. How to label specimen containers
 - C. How to use good body mechanics when lifting heavy containers
 - D. How to log onto the computer to start your training
10. Which statement about the Hazard Communication Standard is true?
- A. The standard confirms employees' rights to work in a safe environment.
 - B. The standard was developed to help employers save money on purchasing chemicals from manufacturers.
 - C. The standard decreases the need to educate employees about the chemicals they use.
 - D. The standard reduces the need for personal protective equipment when handling chemicals.