ABOUT THE HAZARD COMMUNICATION PROGRAM

LENGTH: 13 MINUTES

PROGRAM SYNOPSIS:
Our workplace is full of hazards, hazards that can hurt us or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. One such hazard is the one presented by hazardous chemicals. Protecting workers from exposure to hazardous chemicals can prevent injuries and illnesses. That is the point of our facility's hazard communication program and that is the point of this program.

Topics include the three types of chemical hazards, what hazards each pictogram represents, information conveyed on chemical labels, hazard and precautionary statements and important information that can be found on Safety Data Sheets.

PROGRAM OBJECTIVES:
After watching the program, the participant will be able to explain the following:
- How the Hazard Communication Program and the GHS work to protect workers from chemical hazards;
- What information is conveyed on physical, health and environmental pictograms;
- What information is conveyed on chemical labels;
- What warnings are described on hazard and precautionary statements;
- Which sections of the Safety Data sheet provide important information to chemical workers.

INSTRUCTIONAL CONTENT:

THE HAZARD COMMUNICATION PROGRAM & THE GHS
- Our organization has developed a "Hazard Communication Program" as required by the Occupational Safety and Health Administration, OSHA, in their standard 1910.1200 titled, "The Hazard Communication Program". For our hazard communication program to be effective, all employees must understand and use the information it provides to work safely with hazardous chemicals.
- The Hazard Communication Program is defined by a written plan. The written hazard communication plan contains a listing and location of all hazardous chemicals on site. The plan also includes a description of our facility's chemical container labeling program, which includes a procedure for labeling secondary containers. The written plan also documents the employee training required to ensure all employees receive the chemical specific training they need to safely perform their job duties.
- For example, employees who work directly with hazardous chemicals will be trained how to recognize the occurrence of a leak or spill, to understand the physical and health hazards of the chemicals with which they work, in the selection and use of required protective equipment and how to read chemical labels and safety data sheets.
- Employees will also be instructed how to access the written hazard communication plan as well as all safety data sheets for hazardous chemicals located at the facility. OSHA's regulation mandates that employees have access to this information because all employees have a "right to know" about the hazards of any chemicals with which they work.
- This is why OSHA's Hazard Communication Standard is sometimes referred to as the "Right to Know" standard. OSHA's standard incorporates the globally harmonized system for the classification and labeling of chemicals, commonly called the GHS. Developed by the United Nations, the GHS divides chemicals into hazards, classes and categories, with hazards being the most general grouping.

THREE TYPES OF CHEMICAL HAZARDS
- The GHS defines three types of chemical hazards: physical hazards, health hazards and environmental hazards.
- Chemicals that present a physical hazard are those that are flammable, explosive or reactive and can damage property or harm people.
- Chemicals that present a health hazard are those that could cause illness or injury to the skin, eyes, lungs or other organs and body parts.
- Chemicals that present an environmental hazard are those that cause aquatic toxicity and damage to living organisms in water or cause damage to the earth's ozone layer.
- The chemicals represented by each of these three general hazard types have been further divided into classes of hazards. There are 10 classes of health hazards and 16 classes of physical hazards.

PHYSICAL HAZARD PICTOGRAMS
- The exploding bomb pictogram represents these hazard classes which includes explosives and organic peroxides.
- The flame pictogram represents these hazard classes which includes flammable gases, flammable liquids and flammable solids.
- The flame over circle or oxidizer pictogram represents these hazard classes which includes oxidizing materials.
- The gas cylinder pictogram represents these hazard classes which includes compressed, liquefied or dissolved gas.
- The corrosion pictogram represents these hazard classes, which includes materials corrosive to metal.

HEALTH HAZARD & ENVIRONMENTAL PICTOGRAMS

- There are four pictograms that represent health hazards, one of which is also the corrosion pictogram. The corrosion pictogram is the only pictogram that represents both a physical hazard and a health hazard. The corrosion pictogram also represents the hazard classes of skin corrosion and serious eye damage.
- The skull and crossbones pictogram represents these health hazard classes, which includes acute toxicity to the skin, lungs, or digestive system.
- The health hazard pictogram represents these health hazard classes, which includes germ cell mutagenicity, carcinogenicity and reproductive toxicity. These hazards can adversely affect the DNA of cells, cause cancer or have adverse effects on reproduction.
- The exclamation point pictogram, sometimes called the irritant pictogram, represents these health hazard classes, which includes skin irritation, eye irritation and respiratory tract irritation.
- There are also pictograms to represent environmental hazards. This pictogram is used when a substance poses acute or chronic hazards to the aquatic environment. And the Irritant Pictogram can be used to represent a damaging hazard to the ozone layer.
- Remember the point of these pictograms is to represent the potential hazards of a substance. Their presence is an indication that you may need to seek out additional information in order to safely work with the chemical.

INFORMATION CONVEYED ON CHEMICAL LABELS

- When workers need additional information, the first place to find it is on the chemical label.
- In addition to containing the applicable pictograms, the container label will include a product identifier. The product identifier is the name or number used to identify a hazardous substance. Also included on the label will be the supplier information. The name, address and telephone number should be provided.
- The hazard classes created by the GHS are grouped into an even larger number of very specific sub-sections or categories. Each specific hazard category is assigned a number or a letter as an indication of the severity of its hazards. A hazard category assigned the number 1, or the letter A, represents the most severe hazard categories.
- For example, a Category 1 Flammable Solid presents a more severe hazard than a Category 2 Flammable Solid.
- The GHS uses these hazard categories and their relative severity to define what information appears on the chemical label. For example, the chemical label may contain a signal word. A signal word is used to represent the seriousness of a chemical's most severe hazard. Only two signal words are used: “Danger” and “Warning.”
- A chemical with a label displaying the signal word “Danger” has a more severe hazard than a chemical with a label displaying the signal word “Warning.”

HAZARD & PRECAUTIONARY STATEMENTS

- Chemical labels may also contain hazard statements. Hazard statements have been developed to concisely describe the nature of a chemical’s hazards and have been defined based on each hazard category and the severity of its hazard.
- Be aware that many chemicals contain multiple hazards. When this is the case a hazard statement for each hazard will appear on the label.
- In addition to hazard statements, chemical labels will also contain Precautionary Statements. Precautionary statements describe measures that can be taken to prevent or minimize any harmful effects of the chemical.
- There are five types of precautionary statements: general, such as “Read label before use”; prevention, such as “Wear protective gloves”; response, such as “If on skin wash with plenty of water”; storage, such as “Store in well ventilated place”; and disposal, such as “Dispose in accordance with local regulations.”
- Precautionary statements are also defined by the GHS based on a chemical's hazard class and category.
- As you have seen, the chemical label provides a great deal of important information a worker can use to stay safe. By paying attention to signal words and reading the hazard and precautionary statements, a well-trained worker will have the information needed to work safely with a chemical.

SAFETY DATA SHEETS

- Many times a worker will need more detailed information than a chemical label can provide. This information can be found in a chemical’s Safety Data Sheet.
- As part of the facility’s hazard communication plan a Safety Data Sheet is maintained for every hazardous chemical on site. These Safety Data Sheets are always available for employee review.
- The Safety Data sheet contains more information than a chemical label. Safety Data Sheets are divided into these sixteen sections. Safety Data Sheets are required to be uniform, meaning that each Safety Data Sheet will contain these 16 sections in order. We’ll highlight a few sections of particular importance to chemical workers.
- Section 2: Hazards Identification. This section contains the health, environmental and physical hazards of the chemical as well as pictograms, hazard statements and precautionary statements.
- Section 4: First Aid Measures. This section describes the proper action to take during an exposure situation.
- Section 6: Accidental Release Measures. This section contains the proper methods to safely clean up a leak or spill.
- Section 8: Precautions to Control Exposure/Personal Protection. This section contains any exposure limits for the chemical as well as the protective equipment required to prevent exposure. This important section is where workers can look to see what PPE the chemical manufacturer recommends.
- Section 11: Toxicological Information. This section explains the chemical’s routes of entry into the human body as well as the signs and symptoms of exposure to the chemical.
- Whether on the job or off, understanding and controlling the hazards presented by chemicals is critical to our safety and health.

TO THE POINT ABOUT HAZARD COMMUNICATION
REVIEW QUIZ

Name_____Date_____

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

1. An organization's Hazard Communication Program is not required to have a written plan.

a. true
b. false

2. Which organization developed the Globally Harmonized System?

a. the World Health Organization
b. the Chemical Safety Board
c. the United Nations

3. Which pictogram is the only one that is used to indicate either a physical or health hazard?

a. skull and cross bones
b. exclamation point
c. corrosion

4. The exclamation point pictogram is sometimes called the _____ pictogram.

a. inflammation
b. irritant
c. infection

5. Which signal word on a label represents the more severe hazard?

a. Danger
b. Warning

6. "Read label before use" is an example of which type of precautionary statement?

a. Prevention
b. Response
c. Storage
d. General

7. Your facility maintains a Safety Data Sheet for every hazardous chemical in the workplace.

a. true
b. false

8. The 16 sections of GHS Safety Data Sheets may be listed in any order that the agency issuing the document chooses.

a. true
b. false

9. Which section of a Safety Data Sheet explains a chemical's route of entry into the body?

a. the Hazards Identification section
b. the Accidental Release Measures Section
c. the Toxicological Information Section

ANSWERS TO THE REVIEW QUESTIONS

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