



Training Solutions, Delivered!

**WHAT'S WRONG WITH  
THIS PICTURE?**  
*Hazard Communication  
& GHS*

**Leader's Guide, Fact Sheet  
& Quiz**

***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.

# 4796 WHAT'S WRONG WITH THIS PICTURE?

## *Hazard Communication & GHS*

### FACT SHEET

**LENGTH: 21 MINUTES**

#### **PROGRAM SYNOPSIS:**

This video holds the viewer's attention while providing the essential training and information needed to work safely with chemicals. The video presents a thorough and entertaining presentation of the Hazard Communication Standard and GHS (Globally Harmonized System of Classification and Labeling of Chemicals). Interesting examples and demonstrations help viewers understand the importance of information available to them on labels, pictograms, Safety Data Sheets and their company's written Hazard Communication Plan. Correct and incorrect chemical safety procedures are reenacted in a wide variety of work settings.

#### **PROGRAM OBJECTIVES:**

After watching the program, the participant should be able to explain the following:

- Which classes of chemicals present physical hazards and/or health hazards;
- How chemicals can enter our bodies and how we can prevent them from doing so;
- What information can be found on a chemical container label;
- Which specific hazards the nine pictograms represent;
- What information is contained in the 16 sections of a GHS safety data sheet (SDS).

#### **PROGRAM OUTLINE:**

##### **Physical Hazards and Health Hazards**

The Standard divides the physical and health hazard classes of chemicals. The different hazard classes are broadly described below. A complete list of hazard classes, which are further divided into categories, are explained in the Standard's Appendices.

**Physical hazard** classes of chemicals can result in effects like burns, fires, or explosions. Chemicals that present physical hazards include:

- combustibles
- flammable gases, liquids, and solids
- explosives
- gases under pressure
- organic peroxides
- oxidizers
- pyrophorics
- reactive substances
- unstable substances

**Health hazard** classes of chemicals can result in effects ranging from mild skin disorders to cancer or birth defects. Some chemicals can damage internal organs, such as lungs, kidneys, or liver. Some can damage body systems, such as the nervous system or reproductive system. The health hazard criteria include:

- carcinogens
- corrosives
- toxic substances
- irritants
- sensitizers
- specific organ damaging substances
- mutagen
- reproductive toxicity

##### **Physical Agents**

Some states also regulate physical agents, such as heat, cold, noise, and radiation.

##### **Acute and Chronic Effects**

Some chemicals affect us rapidly. These are called ACUTE effects. CHRONIC effects, on the other hand, take place over a longer period of time. They often don't show up until some time after an exposure or after repeated exposures.

##### **Routes of Entry**










The way chemicals get into our body is called **Routes of Entry**. These include inhalation (breathing), ingestion (swallowing), and absorption through the skin or eyes.

There are safety measures we can take to prevent chemicals from entering our bodies. Proper ventilation or respirators can reduce inhalation. Keeping food and beverages out of a work area and making sure we wash our hands before eating can prevent ingestion. Wearing protective equipment, such as goggles, gloves, aprons, and boots can prevent absorption.

### Label Information

Labels are an immediate source of information for the person working directly with a chemical. We should always read labels **BEFORE** starting to work with a chemical. Here is the information we should find on a hazardous chemical container label according to the global standard:

- **Product identifier** provides a unique means by which the user can identify the chemical with a cross-reference to a list of hazardous chemicals required in the written hazard communication program.
- **Supplier identification** should have the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.
- **Signal words** identify the level of hazard and alert by indicating a “danger” or “warning.”
- **Hazard statements** describe the nature of the hazard(s) of a chemical.
- **Precautionary statements** recommend ways to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling.
- **Pictograms** as a graphical symbol to indicate specific information about the hazards.

<p><b>Health Hazard</b></p>  <p>Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitize Target Organ Toxicity Aspiration Toxicity</p>	<p><b>Flame</b></p>  <p>Flammables Pyrophorics Self-Heating Emits Flammable Gas Self-Reactives Organic Peroxides</p>	<p><b>Exclamation Mark</b></p>  <p>Irritant (skin and eye) Skin Sensitizer Acute Toxicity Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer</p>
<p><b>Gas Cylinder</b></p>  <p>Gases Under Pressure</p>	<p><b>Corrosion</b></p>  <p>Skin Corrosion/Burns Eye Damage Corrosive to Metals</p>	<p><b>Exploding Bomb</b></p>  <p>Explosives Self-Reactives Organic Peroxides</p>
<p><b>Flame Over Circle</b></p>  <p>Oxidizers</p>	<p><b>Environment (Non-Mandatory)</b></p>  <p>Aquatic Toxicity</p>	<p><b>Skull and Crossbones</b></p>  <p>Acute Toxicity (fatal or toxic)</p>

## **Safety Data Sheets**

Explain that Safety Data Sheets contain a wealth of information about a chemical. Anyone who supplies a hazardous chemical to your workplace is required to supply you with an SDS for that chemical. Employers must ensure that SDSs are readily accessible to employees.

The SDS includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.

The information contained on the SDS must be in English although it may be in other languages as well. In addition, OSHA requires that SDS preparers to provide specific minimum information. The details about this are in an Appendix D of the Standard. The SDS preparers may also include additional information in various sections.

A chemical manufacturer, distributor, or importer is required to provide SDS's for hazardous chemicals to communicate information on the hazards. The information is required in a consistent, 16-section format. If no relevant information is found for any given subheading within a section, the SDS should say that no applicable information is available.

The 16 sections in a SDS are briefly described below.

### **Safety Data Sheet - Sections 1 through 8**

These sections contain general information about the chemical, identification, hazards, composition, safe handling practices, and emergency control measures (e.g., fire fighting). This information should be helpful to those that need to get the information quickly.

### **Safety Data Sheet - Sections 9 through 11 and Section 16**

These sections contain other technical and scientific information, such as physical and chemical properties, stability and reactivity information, toxicological information, exposure control information, and other information including the date of preparation or last revision.

### **Safety Data Sheet - Sections 12 through 15**

The SDS must also contain these sections to be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals, but OSHA will not enforce the content of these sections because they concern matters handled by other agencies.

### **Off the Job Safety**

It's important to take this Hazard Communication training home with us. The solvents, paints, cleaners, and other chemicals we use around the house and yard require the same respect and caution as the chemicals in our workplace.

**WHAT'S WRONG WITH THIS PICTURE?**  
*Hazard Communication & GHS*

**ANSWERS TO THE REVIEW QUIZ**

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

## WHAT'S WRONG WITH THIS PICTURE?

### Hazard Communication & GHS

#### REVIEW QUIZ

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

Name \_\_\_\_\_ Date \_\_\_\_\_

- The Hazard Communication Standard (HazCom) helps workers understand how to find information on the hazards of chemicals they may encounter in their workplace.
  - True
  - False
- GHS, the Globally Harmonized System of Chemical Classification and Labeling, standardizes the way information about chemicals are presented on Labels and Safety Data Sheets.
  - True
  - False
- The source of information you probably encounter most often is \_\_\_\_\_.
  - Chemical manufacturers' websites
  - Labels
  - Supplier catalogs
- Effects from chemicals are always noticeable immediately.
  - True
  - False
- Our skin prevents chemicals from entering our body.
  - True
  - False
- In the video, chemicals were entering Larry's body when he was:
  - Using a respirator incorrectly (Inhalation)
  - Using chemicals without gloves (Absorption)
  - Handling food without washing his hands (Ingestion)
  - All of the above
- Manufacturers and suppliers are required to provide a \_\_\_\_\_ for each chemical they provide to a facility.
  - Free sample
  - Safety Data Sheet (SDS)
  - Generic alternative
- If you transfer a chemical to a secondary container and you are not the only person that may possibly use that chemical and container, you must label the secondary container.
  - True
  - False
- Pictograms are graphic symbols that \_\_\_\_\_.
  - Alert you to the specific types of hazards of a chemical
  - Are included on labels and SDS
  - Both of the above
- Two types of chemical hazards are:
  - Health hazards and physical hazards
  - Physical hazards and property damage
  - Health hazards and cancer