

Trainer's Guide

# Chemical Hazards and Safety

Hazard Communication



Susan Harwood  
Training Grant  
2024

# Chemical Hazards and Safety

## Hazards Communication

The purpose of the chemical hazards and safety (hazards communication) training is to ensure chemical safety in the workplace and at home. Knowing how to identify the risks associated with the chemicals and understanding how to minimize exposure is paramount to the safety of all.

*“Chemical hazards and toxic substances pose a wide range of health hazards (such as irritation, sensitization, and carcinogenicity) and physical hazards (such as flammability, corrosion, and explosibility).”*

—OSHA

Disclaimer: This material was produced under grant number SH-000138-SH4 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

## Preparation

### **Topic**

Chemical hazards/hazard communication – training addresses the identification of hazards, chemical exposure prevention, labeling, and Safety Data Sheets.

### **Target audiences**

The intended audience for part one of this training is employees and workers in small businesses, limited English proficiency workers, illiterate or low literacy workers, young workers, temporary workers, disadvantaged workers, underserved workers, low-income workers, minority and other hard-to-reach workers, and workers in high-hazard industries and industries with high fatality rates.

The intended audience for part two of this training is the employers and supervisors of the above workers.

### **Materials**

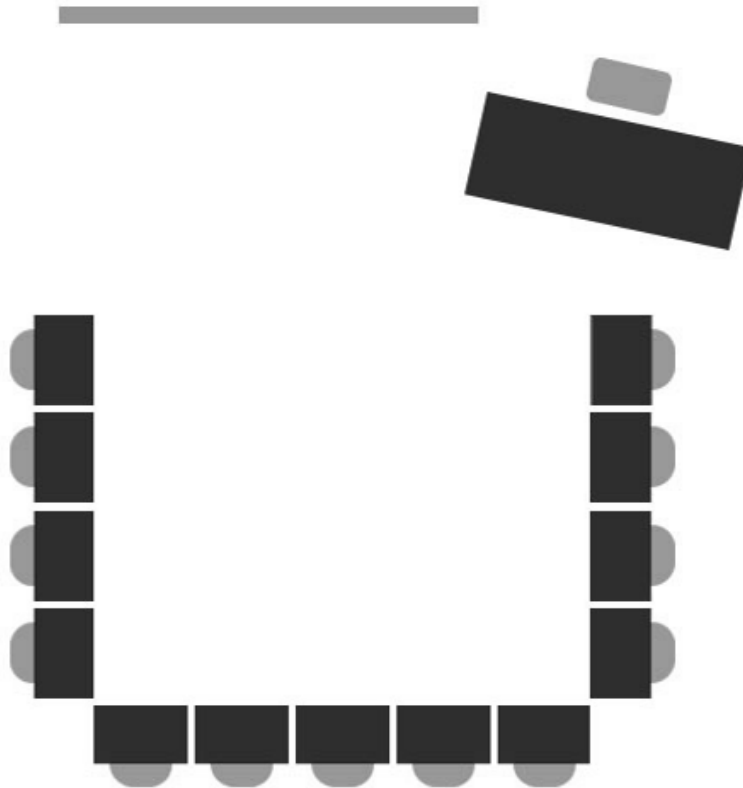
The following is a list of items that will help a trainer be prepared and provide a successful presentation.

- Projector
- Laptop
- Electronic copy of presentation
- Laser pointer
- Microphone
- Speakers
- OSHA and Whistleblower pamphlets/handouts
- Name tags
- Pens
- Pre-printed attendance sheets
- Pre and post test
- Pre and post answer key
- Training evaluations
- Chemical Hazard/Hazardous Communication training script

**Presentation set-up**

Allow yourself a minimum of 30 minutes to set up as the location may be unfamiliar or may require rearrangement.

If possible, arrange tables and chairs to promote active learning. Wherever possible, the following set-up is recommended to enhance learning effectiveness:



Set up and test the projector, laptop, speakers, and any other equipment being used to ensure it is working and ready to present.

The pre-test and the Whistleblower Flyer, along with a pen should be placed at each seat prior to the arrival of trainees.

# Script



**Chemical Hazards and Safety**  
A training course for workers and employers funded by a Susan Harwood Training Grant

Area: Hazard Communications

**Slide 1:** Good morning/afternoon/evening, my name is \_\_\_\_\_. I'm with \_\_\_\_\_. I'm here today/tonight to provide some information regarding identifying the hazards with hazardous substance or chemicals, both at home and work.



**Acknowledgement**

The material was produced under work number 2015-77-2-0158 from the Occupational Safety and Health Administration. OSHA does not warrant the accuracy or completeness of the information, and the Department of Labor is not responsible for any errors or omissions. For more information, visit [www.osha-slc.gov](http://www.osha-slc.gov).

**Slide 2:** This training is funded via a Susan Harwood training grant from the Occupational Safety and Health Administration (OSHA). This grant allows us to deliver safety and health training to workers and employers.



**Welcome!**

This course is designed to help you understand chemical hazards, how they affect us at work, and how they affect our daily lives.

**Slide 3:** Welcome the attendees.



**Today's agenda**

- Welcome/course objectives/quiz
- OSHA worker rights and protections
- Chemical hazards
  - How they get into our body
  - How they affect our body
- Understanding the information
- Working safely with chemicals
- Labeling/demonstration
- Quiz/course evaluation

**Slide 4:** The agenda for today is as follows.



**Learning objectives**

- Recognition of chemical hazards at work and home
- Understand chemical hazard routes of exposure
- Principles and requirements of chemical labeling

**Slides 5–6:** Our objectives for this training include: Recognizing the hazards associated with the chemicals we work with and use at home; how those chemicals get into our body; what goes into the labeling of the chemicals and the requirements for those labels; usage of safety data sheets; preventing injuries and illnesses from exposure to chemicals, and—obviously—the creation of safer workplaces.



**Learning objectives**

- Understand the usage of safety data sheets
- Prevention of injuries and illnesses related to chemical hazards
- Creation of safer workplaces



**Compliance and safety—a cooperation**

- Important components
- Complimentary
- Best at identifying and evaluating risk
- Best at determining elimination of risks

**Slide 7:** Refer to notes section of presentation




Let's see what we already know

**QUIZ**


**Slide 8:** To help us better understand what is known and to later assess the success of this presentation, we'd like to find out what you already know about the hazards associated with chemicals and chemical safety. At the end of this presentation, we will do this again, so don't fret. There are only a few questions on this little quiz. Thank you for your assistance.

**Occupational Safety and Health Act (OSH Act)**  
The mission

- To save lives
- To prevent job-related injuries and illnesses
- To protect America's workers




**Section 11(c) 29 U.S.C. §660(c)**



- OSHA's Whistleblower Protection Program protects employees from retaliation against you by taking enforceable personal action because you engaged in a protected activity relating to workplace safety and health.
- Complaints must be filed with OSHA within 30 days after the alleged retaliation.

**OSHA?**



- OSH Act
  - General Duty Clause
    - Employer requirements/responsibilities
    - Workplace issues

Section 1001.9 (18) Occupational Safety and Health

**Employer responsibilities**

Each employer --

shall furnish to each of his employees engaged in a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to his employees.



Section 1001.9 (18) Occupational Safety and Health

**Employer responsibilities**

Each employer --

shall comply with occupational safety and health standards promulgated under this Act.



Section 1001.9 (18) Occupational Safety and Health

**Employee responsibilities**

Each employee shall comply with occupational safety and health standards and all rules, regulations, and codes of practice applicable to his own actions and conduct.



Section 1001.9 (18) Occupational Safety and Health

**The general duty clause has been violated when:**

- The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed.
- The hazard was recognized.
- The hazard was known or was likely to cause death or serious physical harm, and
- There was a feasible (and rational) method to correct the hazard.



Section 1001.9 (18) Occupational Safety and Health

**Slides 9–10:** OSHA's Whistleblower program enforces the provisions of more than 20 federal laws. It protects employees from retaliation for, among other things, raising or reporting concerns about hazards or violations of various workplace safety and health laws. This OSHA factsheet presents information regarding retaliation and filing a complaint, as well as the protections afforded employees who file a complaint.

You are encouraged to always report any safety concern to your immediate supervisor first. If you feel the concern has not been addressed, you have the right to file an OSHA complaint.

**Slide 11:** Within the OSH Act is a provision commonly referred to as the “general duty” clause. The primary goal is reducing workplace hazards and implementing safety and health programs for employers and employees.

**Slides 12–14:** You've probably heard and know that OSHA has some very specific requirements covering workplace hazards. Things like confined space entries, personal protective equipment, and the use of ladders are all specific regulations. There is no possibility that OSHA could have a regulation for every instance and hazard. So, OSHA uses what is commonly referred to as the general duty clause.

The general duty clause states that employers have responsibility for providing a workplace that is free from recognized hazards that are likely to cause death or serious harm, and they must comply with safety regulations. The general duty clause also states that employees shall comply with safety standards and rules.

What does OSHA require from you (employees)? It is your responsibility to comply with all OSHA safety standards and follow all lawful employer safety and health rules and regulations. Always use and wear your personal protective equipment (PPE) when required, and report hazardous conditions and job-related injuries to your employer.

**Slide 15:** As was said, it is not possible for OSHA to have a specific standard for everything. So, when an OSHA investigator or inspector discovers an unsafe work practice or hazard, they may cite a violation of the general duty clause. However, there are some very specific parameters that must be met for that to occur as shown on this slide.

**Standards, regulations, rules, other references**

- OSHA—Hazard Communication 1910.1200
- DOT—PI HSA Title 49 CFR Parts 100-185
- EPA—TSCA: The Chemical List #1
- NFPA—NFPA 704
- ACGI—American College of Industrial Hygiene Physicians
- CPSC—HHS—The 10 CFR Chapter II, Subchapter D



**Slide 16:** Today, we are going to focus particularly on the hazards related to chemicals you may encounter at work—and maybe sometimes at home. Several standards, regulations, rules, and other references address topics related to chemical safety.

**Standards: regulatory or consensus**

- Regulatory
  - Required
  - Mandated
- Consensus
  - Recommended
  - Voluntary



**Slide 17:** The standards, regulations and rules used to provide do not always have the force of law but instead are voluntarily used to provide information. We see these around us every day. They provide a vitally important component to our safety.

**Top 10 OSHA citations**

- 1. 1910.133 Machine guarding
- 2. 1910.132 Personal fall protection
- 3. 1910.134 Fall protection: training
- 4. 1910.135 Respiratory protection



**Slides 18–20:** For many years, OSHA has publicized its top 10 most-cited standards. As you can see here, some of the most obvious standards cited are issues with putting guards on pieces of equipment, training on the use of fall protection, making sure that all energy sources are accounted for before working on equipment, operating a forklift safely, and using ladders correctly.

**Top 10 OSHA citations**

- 1. 1910.133 Machine guarding
- 2. 1910.132 Personal fall protection
- 3. 1910.134 Fall protection: training
- 4. 1910.135 Respiratory protection



But here sits hazard communication at #2. What in world is that? Well, it's why we're here today. It's the regulation regarding hazardous substances, or chemicals in the workplace. This standard has been in the top 5 for several years in a row. As a matter of fact, in Minnesota, this is the number one most cited standard.

**Top 10 OSHA citations**

- 1. 1910.1200 Hazard communication
- 2. 1910.133 Machine guarding
- 3. 1910.132 Personal fall protection
- 4. 1910.134 Fall protection: training
- 5. 1910.135 Respiratory protection



**Slide 21–22:** We come into contact with chemicals every day, just as a part of normal life. They are in many of the foods we eat, the water we drink, and the products we are surrounded with at home and work. Many of these chemicals are harmless, and some can even be beneficial.

**Chemicals are everywhere**

350,000 chemical substances over past 40 years

Approximately 700 new per year added to TSCA



However, there are many products that can be harmful to us or our family. Each of us may be exposed to different kinds and levels of chemicals and the frequency of exposure among people can be different. What may not be harmful to one person can be a significant irritant to another.

**Interesting fact**

Of all reports to poison control centers concerning children, 10 percent involved household cleaners

For adults, 6 percent involved household cleaners



**What chemicals do you encounter?**

- At work
- At home



**Slide 23:** What are some of the chemicals that you encounter at home? Are they the same as at work? What about at work, what chemicals are you working with?? (Instructor: encourage group participation—remember to use these as examples later.)

**Global Harmonized System (GHS):  
classification and labelling of chemicals**



- Developed by United Nations
- Common hazards
- Harmonized classification criteria (universally recognized around the world)
- Standardized content and format of label and safety data sheet

**Slide 24:** Several years ago, OSHA and the hazard communication standard were aligned with the globally harmonized system of classification and labeling of chemicals. This allows for a uniform manner of classifying and communicating about the identified hazards of chemicals.

**Chemical hazard identification**



- Labeling
  - Pictograms
  - Signal words
- Safety data sheet (SDS)
- Hazard statements
  - Health hazards
  - Physical hazards
- Training

**Slide 25:** There are several parts and pieces to this system. Including labeling with pictograms and signal words, safety data sheets, hazard statements, and associated training.

**Pictograms**



Hazard Communication Standard aligns with Global Harmonization System; requires pictograms on labels to caution users of chemical hazards they may be exposed to.

**Slide 26:** These are examples of pictograms.

**Flame**



- Flammables
- Pyrophorics
- Self-heating
- Emits flammable gas
- Self-reactives
- Organic peroxides

**Slide 27:** The “Flame” pictogram appears on the labels for products and chemicals that are flammable or combustible. See notes in slide presentation for more information


**Skull and Crossbones**



- Acute toxicity (fatal or toxic)

**Slide 28:** “Skull and Crossbones” is familiar to us on labels that we know as poisonous. Poisonous means that a substance is highly toxic, so if you ingest it, you could get sick or possibly even die. This pictogram identifies those products that have a hazard that is acute and potentially fatal. See notes in slide presentation for more information.


**Corrosive**



- Skin corrosion burns
- Eye damage
- Corrosive to metals

**Slide 29:** This pictogram shows that the product is “Corrosive.” The corrosive effect can damage skin and membranes. In addition, highly corrosive materials can cause metal containers to corrode and rupture, so care must be taken to store metal containers away from these products. See the notes in slide presentation for more information.

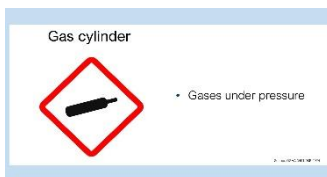
**Exploding bomb**



- Explosives
- Self-reactives
- Organic peroxides

**Slide 30:** The “Exploding Bomb” pictogram identifies those products which are capable of exploding. See notes in slide presentation for more information.





**Slide 31:** The “Gas Cylinder” pictogram identifies compressed gases. Many containers with this pictogram on the label can explode when heated due to the expansion of the gas as the temperature rises. See the notes in slide presentation for more information.



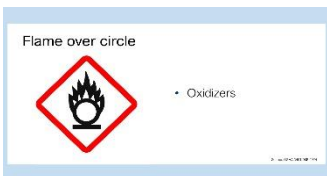
**Slide 32:** The pictogram “Environment” is an optionally used one. It may be used when the product has an acute or chronic aquatic toxicity hazard. OSHA does not regulate the use of this symbol, but it may be used to provide supplementary information.



**Slide 33:** Labels that include the “Exclamation Mark” indicate that the product contains a hazardous substance, that while potentially harmful, represents a lower end of the scale for specific hazards. See the notes in slide presentation for more information.



**Slide 34:** This pictogram identifies a chemical and product with a “Health Hazard.” Typically this is a cancer-causing agent or substance with respiratory, reproductive or organ toxicity that causes damage over time. See notes in slide presentation for more information.



**Slide 35:** This pictogram looks similar to the flame pictogram. This however is labeled as “Flame over Circle,” it is specific to solids, liquids, and gases that are classified as “oxidizers.” Oxidizers cause any combustible material to burn much more rapidly and/or intensely than normal. Hydrogen peroxide is an example.



**Slide 36:** It is very common to see labels placed on containers and on vehicles that transport chemicals. These types of labels help ensure the safety of the public and those who prepare, offer, and transport hazardous materials. Similar information is necessary for emergency response should an incident occur.



**Slide 37:** Another mechanism that is used to communicate hazards associated with the products we use are “signal words.” The labels on the products that we use at home utilize signal words to identify the nature of the hazard. Here the word Caution means there is a risk of injury if the product is not handled correctly. Give/show an example of this—see instructions below.

**Examples – Slides 37-39:** Signal words on consumer use products can present some confusion. Explain the difference between terminology and how it relates to particular products.

**Supplies needed:** 3 or 4 different commonly-used household products such as: liquid dish soap, window cleaner, rust/calcium remover and bleach.



**Signal words**

- Indication of relative level of severity of hazard
- Consumer use product labels
- Accompanied by precautionary statement


**Slide 38:** The signal word “Warning” is the next level of hazard. This means that injury WILL occur if the product is not handled correctly. It’s more serious than “caution,” where the hazard was that there was the risk of an injury. See notes in slide presentation for more information. Give/show an example of this—see instructions above.



**Signal words**

- Indication of relative level of severity of hazard
- Consumer use product labels
- Accompanied by precautionary statement

**Slide 39:** In the vein of progressive hazard signal words, “Danger” is the most severe. The key to this definition is in the severity of the injury or possible death if the product is used/handled incorrectly. See notes in slide presentation for more information. Give/show an example of this—see instructions above.



**NFPA 704 labeling**

- Basic information for emergency personnel
- Generally used when responding to fire or spill
- Used in emergency response planning

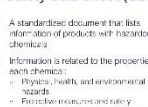
**Slide 40:** The NFPA fire diamond is very common visual label used to communicate the hazard levels of a hazardous substance. We this posted in many locations over the course of a day. For instance, you will see it at the gas station where you purchase propane for your grill. Generally speaking, this label provides a simple, easily understood, and readily recognized marking. It provides very important information during emergency response planning.



**HMIS® labeling**

- Voluntary numerical hazard rating system
- Compliance aid for the hazard communication standard (HCS)
- Intended use by employers and workers

**Slide 41:** If we move a chemical—a product—from its original container to a secondary container, that secondary container is required to be labeled. This HMIS label is a tool that can be used for that purpose. Similar to the NFPA label, a numerical rating system is used. See notes in slide presentation for more information.



**Safety data sheet (SDS)**

- A standardized document that lists information of products with hazardous chemicals
- Information is related to the properties of each chemical:
  - Physical, health, and environmental hazards
  - Precautionary and safety operations for handling, storing, and transporting

**Slide 42:** A safety data sheet is used to communicate information regarding the dangers of hazardous substances/chemicals. It includes such information as the physical hazards, health hazards, protective measures, and safety precautions for storing, handling and transporting the product.



**Fundamental information**

- What is the product and what is it used for? (Section 1)
- What are the hazards? (Section 2)
- How do I work safely with this product? (Section 3)
- What to do in an emergency? (Section 4, 5 and 6)
- Does this product have a specific appearance? (Section 9)

**Slide 43:** See notes in slide presentation for more information.

**Physical hazard**

- Generally, these do not cause adverse effects to anyone using them
- Mixtures can cause damage to the human body and/or materials




**Slide 44:** Physical hazards of a chemical include its flammability and reactivity. Flammability is the ability of the substance to ignite and sustain burning. Reactivity is the potential of the substance to explode or react violently with air, water, or other substances.

**Health hazard**


- Generally, these hazards can cause harm to the health of anyone using them
  - Acute
  - Chronic
  - Irritant




**Slide 45:** The health effects of hazardous substances are often less clear than physical hazards. The effects of a chemical exposure will vary depending upon the actual amount of the chemical the person is exposed to and how hazardous the chemical is. See notes in slide presentation for more information.

**Routes of exposure**

- Inhalation** - Breathing in vapors, mists, dusts, or fumes
- Ingestion** - Swallowing or eating
- Injection** - Punctured or cut through skin or broken
- Absorption** - The chemical enters the body through skin contact



**Slide 46:** No matter how toxic a substance is, there may be little risk unless it enters the body. An assessment of how the product is used and understanding the toxicity is imperative for worker safety. See notes in slide presentation for more information.

**Protection from exposure**

- ✓ Hand washing
- ✓ Laundering of clothes
- ✓ Cleanup of spills
- ✓ Don't mix
- ✓ Proper storage



**Slide 47:** Protection of exposure doesn't simply mean to prevent the chemical from exposing the user, but it also means that we need to prevent cross-contamination. Personal hygiene is vital to this. As you can see, just going about my normal activities, I can cross contaminate many items. See notes in slide presentation for more information

**Demonstration – Slide 47**

During the discussion of hygiene principles used as protection from exposure, using shave cream and latex gloves to demonstrate how contaminants can be transferred from one surface to another and subsequently taken home where others may be exposed.

Supplies needed: Latex gloves and can of shaving cream (not the gel type)

**Protection from exposure**

- ✓ Hand protection
- ✓ Eye/face protection
- ✓ Respiratory protection
- ✓ Body protection



**Slide 48:** Use PPE to protect yourself from exposure. Keep in mind, PPE is not a suit of armor and the hazards from the chemical remain. See notes in slide presentation for more information

**Steps to take**

- Keep a list of all chemicals
- Label all containers
- Make available SDS
- Train employees on chemicals and personal protective equipment and use



**Slide 49:** For OSHA requirements, all employees must receive training annually on the hazardous substances that are in the workplace. The workplace must maintain a list of all hazardous chemicals. An SDS must be kept for all chemicals in your workplace, and employees must have access to them at all times. Labels must be kept on containers.



**Slide 50:** Thank you for listening, are there any questions?



**Slide 51:** It would be greatly appreciated if you would complete the post-test and evaluation before you depart. You may remain anonymous.



**Slide 52:** Again, I'm \_\_\_\_\_ and I appreciate your attention. Thank you for coming. And thank you to \_\_\_\_\_ for hosting this training.

### Answer key for pre-test/post-test—employee attendees

1. True
2. False
3. False
4. True
5. True

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*Part 2: Training  
for employers and  
supervisors*

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## Preparation for Part 2

### ***Set up***

- Leave the room set up as it was for part one.
- Remove all materials from part one except the pens, which should remain on the table for use.
- Provide the employer(s)/supervisor(s) with the pre-test sheet.

### ***Introduction***

As before, explain:

To help us better understand where we are starting and to later assess the success of this presentation, we'd like to find out what you already know about the responsibilities employers and supervisors have associated with chemicals and chemical safety.

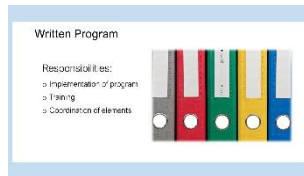
At the end of this presentation, we will do this again, so that we can gauge the usefulness of the session. There are only a few questions on this little quiz. Thank you for your assistance.



**Slide 53:** This is the second part of the training on chemical hazards and safety. It is a continuation of the Susan Harwood Training Grant, and it is for employers and supervisors.



**Slide 54:** The hazard communication standard has several requirements to ensure compliance.



**Slide 55:** You need to prepare a written plan that indicates how hazard communication will be addressed. To ensure that you have a program that complies with the regulation, someone must have the assignment of coordinating all of the elements of the program and who will either train employees or see that they are trained by a person who is competent to do that.

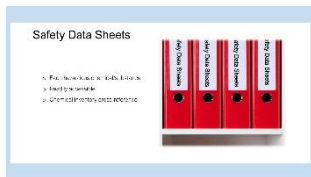


**Slide 56:** Each workplace must develop an inventory of all chemicals or hazardous substances at the site. The chemical inventory is fluid. It is a potentially always changing document within the hazard communication program. This inventory needs to list the common name of the products at your work site. The inventory may also be used to track labeling and SDS records.



**Slide 57:** With respect to the OSHA general duty clause, employers must maintain a workplace free from hazards and create a safety culture that ensures all employee are informed about the hazards associated with their jobs. The labeling requirements of the hazard communication standard are vital to that end.

Employees have a responsibility to label containers if the original become illegible or the product is moved to a secondary container. Your hazard communication program needs to detail the labeling system that will be utilized. The information to be placed on the additional label may be obtained from the original label or the safety data sheet.



**Slide 58:** You must have safety data sheets on all hazardous chemicals in the workplace. There are some exceptions to this rule, such as consumer products that are packaged for distribution to—and used by—the general public. In that case, you don't need an SDS if:

1. the consumer product is used in the workplace in the same form, concentration and manner as it is sold to consumers.
2. The exposure to employees is not significantly greater than it would be to a consumer during use.

There is also no requirement for an SDS for products that are to be sold, such as a retail store that sells paints and cleaners. In that case:

1. Yes, an SDS is needed if the items are used by employees
2. No, an SDS is not needed if the items are only for sale to others

Your hazard communication program must detail how employees may access the SDSs for products in use at your job site. All employees must have access to them at all times.

You may keep the SDSs electronically, but you need to ensure that retaining the documents in that form does not limit employee access. There also needs to be a review process to ensure that the SDSs on file are the most current versions available.

**Note:** If you purchase the same generic chemical from multiple suppliers (e.g., isopropyl (rubbing) alcohol, hydrogen peroxide, ammonia, bleach, etc.) you must have an SDS from each supplier. SDSs must match the product labeling.



**Slide 59:** All employees must be trained on the hazard communication standard. That training needs to take place when the employee has been given their initial assignment. After that, employees should have an annual training. The information to be covered during the training includes all of the components of the hazard communication program. Emphasis should include the identification of the hazards and protective measures that must be employed to reduce exposure. If a new chemical is introduced at the workplace, training must be completed regarding the hazards of that product.



**Slide 60:** Periodically, the hazard communication program should be reviewed to ensure that it maintains compliance with OSHA standard and any new chemicals and hazards are included in the program. If there has been a change in responsible person assignments, that too must be updated in the hazard communication program.





**Slide 61:** Don't worry, OSHA has developed a model plan that you may go on their website and download. You will then be able to create your hazard communication standard program document.



**Slide 62:** Everything you need. Behind this QR code are several resources documents along with the presentation.



**Slide 63:** Thank you. Are there any questions?

**Instructor:** once the questions have been answered, administer the post-test.

## Answer key for pre-test/post-test for employers/supervisors

1. D
2. A
3. C
4. D
5. A

## FAQ – Questions that frequently come up during training

1. *Do all my employees need to be trained or is it only those that work full-time?*

All employees must receive training regarding the risks associated with their exposures to hazardous substances. That training must be completed upon hire and prior to working with the chemicals.

2. *Do I have to provide the personal protective equipment (PPE)?*

Yes, employers are required to provide PPE at no cost to employees. The PPE must fit the employee properly. Employers must also train employees on its use and its limitations.

3. *What happens if an employee doesn't label a (secondary) container?*

Each individual employer must decide how best to handle non-compliance with the requirements. Employees should be reminded about their responsibilities under the OSHA general duty clause. Refresher training about the labeling requirements should be conducted.

4. *We collect waste products. Do I need to have a safety data sheet on each of those items that are picked up?*

No, waste collection is exempted from the requirements of inventory and safety data sheets. Precautionary measures must be taken, however, to protect employees from exposure to the hazards of those products, including providing training and personal protective equipment.

5. *One of my employees was on vacation when I gave the training, do I need to give it to him/her when they return, or can it wait until the next training cycle?*

Yes, all employees must be provided with the required training at the required times. You cannot wait.

6. *Will OSHA come and inspect me if I don't have one of these hazard communication standard programs?*

OSHA will not come in and inspect because there isn't a plan unless they have been given a reason to inspect, such as a complaint, an accident, or a programmed inspection. During such an inspection, the existence of a hazard communication program may be sought and if it does not exist, your non-compliance will be included in OSHA's findings.

7. *The PPE I have been given does not fit right and it is more unsafe that not wearing it.*

This needs to be discussed with your supervisor. It is required that your employer obtain alternative PPE that will provide the necessary protection and properly fits you. You are required to wear the PPE.