

Lesson Plan
General Industry Training Program (10-hour)

Topic: Hazard Communication

Overview of the OSHA Standard

The basic goal of a Hazard Communication Program is to ensure employers and employees know about work hazards and how to protect themselves. This should help to reduce the incidence of chemical source illness and injuries.

Chemicals pose a wide range of health hazards (such as irritation, sensitization, and carcinogenicity) and physical hazards (such as flammability, corrosion, and reactivity). This standard is designed to ensure that information about these hazards and associated protective measures is disseminated to workers and employers. This is accomplished by requiring chemical manufacturers and importers to evaluate the hazards of the chemicals they produce or import; and providing information about them through labels on shipped containers and more detailed information sheets called *material data safety sheets* or MSDS's. All employers with hazardous chemicals in their workplaces must prepare and implement a written hazard communication program. They must also ensure that all containers are labeled, employees are provided access to MSDS's, and an effective training program is conducted for all potentially exposed employees.

The standard provides workers the right-to-know the hazards and identities of the chemicals they are exposed to in the workplace. When workers have this information, they can effectively participate in their employers' protective programs and take steps to protect themselves. In addition, the standard gives employers the information they need to design and implement an effective protective program for employees potentially exposed to hazardous chemicals.

Step 1: Planning the Lesson

• **Instructional Materials.**

1. PowerPoint presentation
2. Instructor notes.
3. Other materials.

• **Instructional Objectives.**

1. Complete the required topics for the OSHA 10-hour course.
2. Complete the following optional topics:
 - a.
 - b.
 - c.
3. Present *Hazard Communication* to [number] participants.
4. Incorporate active participation in each lesson.
5. Provide a quiz or short evaluation at the end of the course.
6. Ensure feedback from participants at various points in the training.

• **Guest Speakers/Presenters and Topics/Responsibilities.**

Step 2: Presenting the Lesson

- **Lesson Introduction**

Introductory remarks or transition from previous lesson.

- **Learning Objectives/Outcomes.**

Upon completion of the lesson, participants will be able to:

1. Describe the four main employer responsibilities under the HazCom standard.

Possible responses.

- Identify and list hazardous chemicals in their workplaces.
- Obtain Material Safety Data Sheets (MSDS's) and labels for each hazardous chemical.
- Implement a written HazCom program.
- Communicate hazard information to employees.

2. Discuss in detail at least 3 components of an appropriate HazCom program, including requirements to provide specific information.

Possible responses.

The program must:

- Be described in writing.
- Include training for employees on:
 - container labeling
 - MSDS's
 - how to obtain and use available hazard information
 - hazards of chemicals in their work areas
 - protective measures such as engineering controls, work practices to mitigate hazards and personal protective equipment
 - how to detect the presence or release of a hazardous chemical
- Provide a list hazardous chemicals found or used in the workplace.
- Make information regarding hazards and protective measures available on site.
- Provide training and HazCom information in English and any other languages needed to successfully communicate to employees.

- **Learning Objectives/Outcomes (Continued)**

3. Discuss the differences between HazCom labeling requirements for a commercially procured chemical in its original packaging or container, and other workplace chemical containers such as stationary containers, portable containers and piping systems.

Possible responses.

- Label of a commercially procured chemical in its original packaging or container gives:
 - identity of the chemical
 - appropriate hazard warnings
 - name and address of the chemical manufacturer, importer or other responsible party
 - Labeling of other workplace containers.
 - Stationary containers
 - hazard warning that includes a message, picture or symbol conveying the hazards of the chemical
 - Portable containers
 - no labeling required *if* chemicals transferred to a portable container are intended for the immediate use of the employee who makes the transfer
 - Pipes or piping systems, engines, fuel tanks or other operating systems in a vehicle
 - not considered to be containers
4. Identify at least five pieces of information found on each material safety data sheet.

Possible responses.

- Description of the physical hazards of the chemical such as fire and explosion.
- Description of the health hazards of the chemical such as signs of exposure.
- Description of routes of exposure, such as through contact with the skin, inhalation, and the like.
- Precautions for safe handling and use.
- Emergency and first-aid procedures.
- Chemical control measures in the event of spillage or leakage of vapors or content.
- Must be in English and include information regarding the specific chemical identity and common names.

References

OSHA Standard

- 29 CFR 1910 Subpart Z (1910.1200)
 - http://www.osha-slc.gov/OshStd_data/1910_1200.html

OSHA Publications

- <http://www.osha-slc.gov/OshDoc/Additional.html>
- 3084 Chemical Hazard Communication
- 3111 Hazard Communication Guidelines for Compliance

OSHA References/Resources

- Appendix E to 1910.1200 – *Guidelines for Employer Compliance*
- OSHA Form 174 – *Material Safety Data Sheet (MSDS)*
 - <http://www.osha-slc.gov/Publications/MSDS/msdsform.html>
- OSHA Small Business Outreach Training Program, Hazard Communication
 - <http://www.osha-slc.gov/SLTC/smallbusiness/sec16.html>
- OSHA Technical Links – Hazard Communication
 - <http://www.osha-slc.gov/SLTC/hazardcommunications/index.html>
- Self-Inspection Checklists
 - <http://www.osha-slc.gov/SLTC/smallbusiness/chklist.html#HAZCOM>