

## Hazard Communication Program

---

Hazard communication is a term used to describe the steps that a chemical manufacturer, importer or distributor takes to identify, evaluate and communicate chemical hazards to the users of the chemicals they produce or supply. Employers also use Hazard Communication to pass this information on to their own employees. A Hazard Communication Program increases the availability of hazard information, helps employers devise appropriate protective measures, and gives employees the information they need to protect themselves when using chemicals.

### **Program organization**

The development and implementation of a Hazard Communication Program should be assigned to a suitably trained individual within the organization. This individual should serve to coordinate the joint efforts of the Purchasing, Personnel, Safety and Production Departments to ensure the program is effective and meets OSHA requirements.

There are a number of elements that are required by OSHA when implementing a Hazard Communication Program. These include:

- A written program
- An inventory of hazardous chemicals
- Procedures to ensure containers are properly labeled
- Procedures to obtain SDSs (Safety Data Sheets)
- Procedures to ensure SDSs are available to employees
- Programs to protect employees
- Employee training
- Procedures to maintain the program and evaluate its effectiveness

### **Written program**

The written program provides documentation of how Hazard Communication will be implemented and administered. It must include provisions for container labeling, collection and availability of SDS's, and an employee training program. It must also contain a list of hazardous chemicals, the means the employer will use to inform employees of the hazards of non-routine tasks (e.g., cleaning vessels), and hazards associated with chemicals in pipes and process vessels. If the workplace has multiple employers on-site (e.g., a construction site), provisions need to be in place so that these employees are also informed of any chemical hazards they may encounter and ways they can protect themselves.

### **Inventory of hazardous chemicals**

An inventory of all chemicals used in the workplace should be developed. This list should be applicable to specific work areas or departments and note the chemical name and the supplier's name and address. The OSHA Hazard Communications Standard (29 CFR 1910.1200) defines what are health and physical hazards and is based on the United Nations Globally Harmonized System (GHS) of Classification and Labeling of Chemicals. Health Hazards include:

- Acute toxicity
- Skin corrosion or irritation
- Serious eye damage or eye irritation
- Respiratory or skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity
- Aspiration hazard
- Simple asphyxiant

Physical hazards include:

- Explosive
- Flammable
- Self-reactive
- Pyrophoric
- Self-heating
- Organic peroxide
- Corrosive to metal
- Gas under pressure
- Emits flammable gas when in contact with water
- Combustible dust

GHS includes environmental classifications but since OSHA does not have authority over environmental issues, OSHA does not enforce these aspects even though environmental hazards may be noted on SDS's and labels.

### **Labeling**

All containers of hazardous material in the workplace must be labeled, tagged or marked. Labels provide an immediate warning of the hazards of the chemicals but are not intended as the sole source of information. The SDS should be consulted for complete hazard information. Manufacturers and distributors must supply labels on all shipping containers. Labels must include:

- Product identifier
- Pictogram
- Signal word
- Hazard statement(s)
- Precautionary statement(s)
- Name, address and telephone number of chemical manufacturer or importer

Pictograms are standard symbols intended to convey specific information about the hazards. There are eight standard OSHA required pictograms with an additional non-required environmental pictogram. OSHA's standard requires the use of two signal word options. "Danger" is used for more severe hazards while "Warning" is used for less severe ones. Hazard statements and precautionary

statements are standardized phrases assigned to each hazard class and category. Examples include “Causes serious eye damage.” or “Wear protective gloves/protective clothing.”

When employees transfer chemicals from the manufacturer’s or supplier’s container to other containers, these containers must be labeled as well. The GHS labeling system or an in house labeling system can be used as long as information about the health and physical hazards and precautionary measures are included.

Signs, placards, process sheets, batch tickets or other written materials may be used in lieu of labels on in-plant process containers and piping systems. Portable containers into which hazardous chemicals are transferred from labeled containers and which are intended for immediate use by the employee who does the transfer, do not need to be labeled.

### **Safety Data Sheets (SDS)**

SDS’s provide more comprehensive information about the hazards associated with a chemical and the means for controlling these hazards. SDS’s must be obtained for all hazardous chemicals used in the facility. The Purchasing Department should establish an ongoing procedure for ordering SDS’s for all new purchases. The Safety Department should be assigned the responsibility of checking the accuracy and completeness of SDS’s and keeping copies on file so they are available to employees. SDS’s can be kept in electronic form as long as they are accessible to employees during their work shifts.

### **Employee information and training**

Employers must establish a formal training and information program for employees exposed to hazardous chemicals. This training should be provided upon hire, at the beginning of each assignment involving hazardous chemicals and whenever a new health or physical hazard is introduced into their work environment. OSHA specifies that training should be effective. This means that the training program must provide employees with the knowledge they need and carry that knowledge to their daily jobs. Training should include:

- The requirements of the OSHA Hazard Communication Standard
- Operations in the workplace where hazardous chemicals are used
- Location of the company’s written Hazard Communication Program, including SDS’s, hazard evaluation procedures, and hazardous chemical lists
- How to detect the presence or release of a hazardous chemical
- The health and physical hazards of all the chemicals in the employees’ work area
- Protective measures the employer has instituted and that employees must follow to protect themselves including emergency procedures, safe work practices and use of personal protective equipment
- How to read and interpret information on labels and SDS’s including the company’s in-house labeling system
- How to get and use available hazard information

OSHA also requires that training be understood by employees. This means that the training may have to be provided in other languages besides English.

**Program assessment**

A formal review and evaluation of the program should be done periodically. Results of this analysis should be discussed with top management. If weaknesses are found, the program should be reinforced or modified.

---

The information contained in this publication is general in nature and is intended for educational purposes only. While efforts have been made to ensure the accuracy of this information, the publication does not list every action, reaction, interaction, scenario or precaution; and all information is presented without guarantees or warranties by the author, consultants and the publisher, who disclaim all liability or responsibility in connection with its use, including but not limited to loss, damage, injury, or violation of any federal, state or local laws with which the information may conflict. The user is encouraged to refer to the specific requirements of such laws.