

Hazard Communication
Subpart Z
29 CFR 1910.1200
Adopted from OSHA Office of Training and Education
HAZARD COMMUNICATION/hazcom/1-95

About 32 million workers are potentially exposed to one or more chemical hazards. There are an estimated 575,000 existing chemicals products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employees.

Chemical exposures may cause or contribute to many serious health effects such as heart ailments, kidney and lung damage, sterility, cancer, burns, and rashes. Some chemicals may also be safety hazards and have the potential to cause fires and explosions and other serious accidents.

Because of the seriousness of these safety and health problems, and because many employers and employees know little or nothing about them, the Occupational Safety and Health Administration (OSHA) has issued a rule called "Hazard Communication." The basic goal of the standard is to be sure employers and employees know about work hazards and how to protect themselves; this should help reduce the incidence of the chemical source illness and injuries.

The Hazard Communication Standard establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in the U.S. workplaces are evaluated, and that this hazard information is transmitted to affected and exposed employees.

Chemical manufacturers and importers must convey the hazard information they learn from their evaluations to downstream employers by means of labels on containers and material safety data sheets (MSDS's). In addition all covered employers must have a hazard communication program to get this information to their employees through labels on containers, MSDS's and training.

This program ensures that all employers receive the information they need to inform and train their employees properly and to design and put in place employee protection programs. It also provided necessary hazard information to employees, so they can participate in, and support, the protective measures in place at their workplaces.

OSHA has developed a variety of materials and publications to help employers and employees develop and implement effective hazard communication programs.

Before explaining the details of various parts of the Hazard Communication standard, a brief overview of the design of the standard may be helpful. The Hazard Communication standard is different from other OSHA health rules as it covers all hazardous chemicals. The rule also incorporates a "downstream flow of information," which means that

producers of chemicals have the primary responsibility for generating and disseminating information, while users of chemicals must obtain the information and transmit it to their own employees.

In general, it works like this:

Chemical Manufacturers/ Importers	<ul style="list-style-type: none"> • Determine the hazards of each product.
Chemical Manufacturers/ Importers/Distributors	<ul style="list-style-type: none"> • Communicate the hazard information and associated measures downstream to customers through labels and MSDS's.
Employers	<ul style="list-style-type: none"> • Identify and list hazardous chemicals on their workplaces. • Obtain MSDS's and labels for each hazardous chemical. • Develop and implement a written hazard communication program, including labels, MSDS's, and employee training, based on the list of chemicals, MSDS's and label information. • Communicate hazard information to their employees through labels, MSDS's and formal training programs.

HAZARD EVALUATION

The quality of the hazard communication program depends on the adequacy and accuracy of the hazard assessment. Chemical manufacturers and importers are required to review available scientific evidence concerning the hazards of the chemicals they produce or import, and to report the information they find to their employees and to employers who distribute or use their products. Downstream employers can rely on the evaluations performed by the chemical manufactures or importers to establish the hazards of the chemicals they use.

The chemical manufacturers, importers, and any employers who choose to evaluate hazards are responsible for the quality of the hazard determinations they perform. Each chemical must be evaluated for its potential to cause adverse health effect and its potential to pose physical hazards such as flammability. (definitions of hazards covered are included in the standard.) Chemicals that are listed in one of the following sources are to be considered hazardous in all cases:

- 29 CR 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration, (OSHA) and
- Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH).

In addition, chemicals that have been evaluated and found to be a suspect or confirmed carcinogen in the following sources must be reported as such:

- National Toxicology Program (NTP), Annual Report on Carcinogens,
- International Agency for Research on Cancer (IARC), Monographs, and
- Regulated by OSHA as a carcinogen.

WRITTEN HAZARD COMMUNICATION PROGRAM

Employers must develop, implement, and maintain at the workplace a written, comprehensive hazard communication program that includes provisions for container labeling, collection and availability of material safety data sheets, and an employee training program. It also must contain a list of the hazardous chemicals in each work area, the means the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of a reactor vessels), and the hazards associated with chemicals in unlabeled pipes. If the workplace has multiple employers on-site (for example, a construction site), the rule requires these employers to ensure that information regarding hazards and protective measures be made available to the other employers on-site, where appropriate.

The written program does not have to be lengthy or complicated, and some employers may be able to rely on existing hazard communication programs to comply with the above requirements. The written program must be available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health, and the Director of the National Institute for Occupational Safety and Health (NIOSH).

LABELS AND OTHER FORMS OF WARNING

Chemical manufacturers, importers, and distributors must be sure that containers of hazardous chemicals leaving the workplace are labeled, tagged, or marked with the identity of the chemicals, appropriate hazard warnings, and the name and address of the manufacturer of other responsible party.

In the workplace, each container must be labeled, tagged or marked with the identity of hazardous chemicals contained therein, and must show hazard warnings appropriate for employee protection. The hazard warning can be any type of message, words, pictures, or symbols that convey the hazards of the chemical(s) in the container. Labels must be legible, in English (plus other languages, if desired), and prominently displayed.

Exemptions to the requirement for in-plant individual container labels are as follows:

- Employers can post signs or placards that convey the hazard information if there are a number of stationary containers within a work area that have similar contents and hazards.

- Employers can substitute various types of standard operating procedures, process sheets, batch tickets, blend tickets, and similar written materials for container labels on stationary process equipment if they contain the same information and are readily available to employees in the work area.
- Employers are not required to label portable containers into which hazardous chemicals are transferred from labeled containers and that are intended only for the immediate use of the employee who makes the transfer.
- Employers are not required to label pipes or piping systems.

MATERIAL SAFETY DATA SHEETS

Chemical manufacturers and importers must develop and MSDS for each hazardous chemical they produce or import, and must provide the MSDS automatically at the time of the initial shipment of a hazardous chemical to a downstream distributor or user. Distributors must also ensure that downstream employers are similarly provided an MSDS.

Each MSDS must be in English and include information regarding the specific chemical identity of the hazardous chemical(s) involved and the common names. In addition, information must be provided on the physical and chemical characteristics of the hazardous chemical; known acute and chronic health effects and related health information; exposure limits; whether the chemical is considered to be a carcinogen by NTP, IARC, or OSHA; precautionary measures; emergency and first-aid procedures; and the identification of the organization responsible for preparing the sheet.

Copies of the MSDS for hazardous chemicals in a given work site are to be readily accessible to employees in that area. As a source of detailed information on hazardous information on hazards, they must be located close to workers, and readily available to them during each workshift.

LIST OF HAZARDOUS CHEMICALS

Employers must prepare a list of all hazardous chemicals in the workplace. When the list is complete, it should be checked against the collected MSDS's that the employers has been sent. If there are hazardous chemicals used for which no MSDS has been received, the employer must write to the supplier, manufacturer, or importer to obtain the missing MSDS. If the employers do not receive the MSDS within a reasonable period of time, they should contact the nearest OSHA office.

EMPLOYEE INFORMATION AND TRAINING

Employers must establish a training and information program for employees exposed to hazardous chemicals in their work area at the time of initial assignment and whenever a new hazard is introduced into their work area.

Information

At a minimum, the discussion topics must include the following:

- The existence of the hazard communication standard and the requirements of the standard.
- The components of the hazard communication program in the employees' workplaces.
- Operations in the work areas where hazardous chemicals are present.
- Where the employer will keep the written hazard evaluation procedures, communications program, lists of hazardous chemicals, and the required MSDS forms.

Training

The employee training plan must consist of the following elements:

- How the hazard communication program is implemented in that workplace, how to read and interpret information on labels and the MSDS, and how employees can obtain and use the available hazard information.
- The hazards of the chemicals in the work area. (The hazards may be discussed by individual chemical or by hazard categories such as flammability.)
- Measures employees can take to protect themselves from the hazards.
- Specific procedures put into effect the employer to provide protection such as engineering controls, work practices, and the use of personal protective equipment (PPE).
- Methods and observations-such as visual appearance or smell-workers can use to detect the presence of a hazardous chemical to which they may be exposed.