

HAZARD COMMUNICATION
FINAL RULE
November 25, 1983
F.R. 53280-53348

Effective Dates:

- (1) November 25, 1985 -- Chemical manufacturers and importers are required to label containers they ship and provide required MSDSs.
- (2) November 25, 1985 -- Distributors must transmit required information to employers in SIC Codes 20-39.
- (3) May 25, 1986 -- Employers must be in compliance and have completed initial training of all current employees.

Purpose:

- (1) To insure that the hazards of all chemicals produced or imported by chemical manufacturers or importers are evaluated, and that information concerning their hazards is transmitted to affected employers and employees within the manufacturing sector
- (2) To address comprehensively the issue of evaluating and communicating chemical hazards to employees and to preempt any state law pertaining to this subject

Scope and Application:

- (1) This regulation applies to chemical manufacturers and importers and employers in SIC Codes 20 through 39. Distributors must transmit required information to employers in SIC Codes 20 through 39.
- (2) This section applies to any chemical which is known to be present in the workplace to which employees may be exposed under normal conditions of use or in a foreseeable emergency.
- (3) Laboratories have limited application:
 - (a) Labels must not be removed or defaced on incoming containers
 - (b) MSDSs which are received must be maintained and accessible to employees
 - (c) Employees must be apprised of hazards in their workplaces

Hazard Determination:

- (1) Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to determine if they are hazardous. Employers are not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the manufacturer.
- (2) Sources are listed which establish the chemicals listed in them as hazardous or a carcinogen or potential carcinogen.
- (3) Procedures must be written describing how hazards of chemicals were evaluated. These procedures may be included in the written hazard communication program. The procedures are to be made available upon request to employees and representatives.

Hazard Communication Program:

- (1) This program must be written and describe how the requirements pertaining to the following will be met:
 - (a) Labels and other forms of warning
 - (b) MSDSs
 - (c) Employee information and training
- (2) It must also include:
 - (a) A list of hazardous chemicals compiled by workplace or by areas
 - (b) The methods used to inform employees of the hazards of non-routine tasks, and hazards associated with chemicals in unlabeled pipes in their work area
 - (c) The methods used to inform contractor employers of the hazardous chemicals their employees may be exposed to
- (3) The program must be made available upon request to employees, representatives and OSHA.

Labels and Other Forms of Warning:

- (1) Chemical manufacturers, importers, or distributors must ensure that each container of hazardous chemicals leaving the workplace is labeled with:
 - (a) Identity of hazardous chemicals
 - (b) Appropriate hazard warnings
 - (c) Name and address of the chemical manufacturer, importer, or other responsible party

- (2) Employers shall ensure each container of hazardous chemicals in the workplace is labeled with:
 - (a) Identity of hazardous chemicals
 - (b) Appropriate hazard warnings
- (3) Employers may use signs, placards, process sheets, batch tickets, operating procedures or other written material instead of putting labels on individual stationary process containers. This must be accessible to employees in their work area throughout each work shift. Portable containers need not be labeled if content is used during the same workshift by the employee who did the transfer.

Material Safety Data Sheets:

- (1) Chemical manufacturers and importers shall obtain or develop MSDSs for each hazardous chemical they produce or import. Employers shall have a MSDS for each hazardous chemical which they use.
- (2) Specific information is required on the MSDS. New information must be added within three months.
- (3) MSDSs must be provided with the initial shipment and the first shipment after an update. MSDSs may accompany the container or be sent to the purchaser prior to or at the time of shipment.
- (4) All employers are required to maintain MSDSs for each hazardous chemical in the workplace and make them readily accessible to employees when in work areas.
- (5) MSDSs may address processes rather than individual hazardous chemicals.

Employee Information and Training:

- (1) Information and training must be provided at the time of initial assignment and whenever a new hazard is introduced in the work area.
 - (a) Information:
 - (1) Requirements of this section
 - (2) Operations where hazardous chemicals are present
 - (3) Location and availability of the written hazard communication program, including required lists and MSDSs.

(b) Training:

- (1) Methods and observations used to detect presence or release of a hazardous chemical
- (2) Physical and health hazards of chemicals in work area
- (3) Measures employees can take to protect themselves from hazards
- (4) Details of the hazard communication program, and how employees can obtain and use the appropriate hazard information

Trade Secrets:

- (1) Manufacturers, importers or employers may withhold the identity and other specific identification of a hazardous chemical from the MSDS provided specific requirements are met.
- (2) Emergency and non-emergency situations are addressed pertaining to release of trade secret information.

Hazard Determination - Mixtures

(48 Federal Register 53342)

The chemical manufacturer, importer or employer shall determine the hazards of mixtures of chemical as follows:

(i) If a mixture has been tested as a whole to determine its hazards, the results of such testing shall be used to determine whether the mixture is hazardous;

(ii) If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under paragraph (d)(4) of this section;

(iii) If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and

(iv) If the employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees in those concentrations, the mixture shall be assumed to present the same hazard.

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Material Safety Data Sheets
Required Contents
[1910.1200(g) - 48 Federal Register 53343-44]

1. MSDS must be in English.
2. Must contain following information:
 - o The identity used on the label (except as provided in provisions for trade secrets);
 - o Single-substance include its chemical and common name(s);
 - o Mixture, if tested as a whole, include the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or
 - o Mixture (not tested on a whole) -- include chemical and common name of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens under standard shall be listed if the concentrations are 0.1% or greater; and, the chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;
 - o Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);
 - o The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;
 - o The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;
 - o The primary route(s) of entry;
 - o The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;
 - o Whether listed as a carcinogen in NTP Annual Report on Carcinogens (latest edition) or identified as a potential carcinogen by IARC or OSHA.

**U.S. Department of Labor
Regional Offices for the Occupational
Safety and Health Administration**

Region I
(CT, MA, ME, NH, RI, VT)
16-18 North Street
1 Dock Square Building
4th Floor
Boston, MA 02109
Telephone: (617) 223-6710

Region II
(NJ, NY, Puerto Rico, Virgin
Islands)
1 Astor Plaza, Room 3445
1515 Broadway
New York, NY 10036
Telephone: (212) 944-3426

Region III
(DC, DE, MD, PA, VA, WV)
Gateway Building, Suite 2100
3535 Market Street
Philadelphia, PA 19104
Telephone: (215) 596-1201

Region IV
(AL, FL, GA, KY, MS, NC, SC, TN)
1375 Peachtree Street, N.E.
Suite 587
Atlanta, GA 30367
Telephone: (404) 881-3573

Region V
(IL, IN, MI, MN, OH, WI)
230 South Dearborn Street
32nd Floor, Room 3244
Chicago, IL 60604
Telephone: (312) 353-2220

Region VI
(AR, LA, NM, OK, TX)
555 Griffin Square Bldg., Room 602
Dallas, TX 75202
Telephone: (214) 767-4731

Region VII
(IA, KS, MO, NE)
911 Walnut Street, Room 406
Kansas City, MO 64106
Telephone: (816) 374-5861

Region VIII
(CO, MT, ND, SD, UT, WY)
Federal Building, Room 1554
1961 Stout Street
Denver, CO 80294
Telephone: (303) 837-3061

Region IX
(AZ, CA, HI, NV, American Samoa,
Guam, Pacific Trust Territories)
Box 36017
450 Golden Gate Avenue
San Francisco, CA 94102
Telephone: (415) 556-7260

Region X
(AK, ID, OR, WA)
Federal Office Building
Room 6003
909 First Avenue
Seattle, WA 98174
Telephone: (206) 442-5930

Chemical Hazard Communication



U.S. Department of Labor
Raymond J. Donovan, Secretary

Occupational Safety and Health Administration
Thorne G. Auchter, Assistant Secretary

1983

OSHA 3084

About This Pamphlet

The information contained in this flyer is not considered as a substitute for any provisions of the Occupational Safety and Health Act of 1970 or for any standards issued by the Occupational Safety and Health Administration.

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Chemicals in the Workplace

Approximately 25 million workers—about one in four in the nation's work force—are exposed to one or more chemical hazards. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers.

Chemical exposure 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 the lack of information available to many employees and employers, the Occupational Safety and Health Administration (OSHA) has issued a new final standard entitled "Hazard Communication" (29 CFR 1910.1200). The goal of the standard is to reduce the incidence of chemical source illnesses and injuries in the manufacturing industries.

The purpose of the hazard communication standard is to establish uniform requirements to make sure that the hazards of all chemicals produced, imported, or used within the United States' manufacturing sector [Standard Industrial Classification (SIC) Codes 20 through 39] are evaluated, and that this hazard information is transmitted to affected employers and employees.

Chemical manufacturers and importers must convey hazard information to downstream employers by means of labels on containers and material safety data sheets (MSDS). In addition, all covered employers are required to have a hazard communication program to provide the information to their employees by means of container labeling and other forms of warning, MSDS, and training.

This will ensure 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 will also provide necessary hazard information to employees, so they can participate in, and support, the protective measures instituted in their workplaces.

Hazard Evaluation

The quality of the hazard communication program is largely dependent on the adequacy and accuracy of the hazard assessment.

Chemical manufacturers and importers are required to review the 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 manufacturing employers who purchase their products. Downstream employers can rely on the evaluation performed by the chemical manufacturer or importer to establish their hazard communication programs.

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

- 29 CFR 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 which have been evaluated and found to be a suspect or confirmed carcinogen in the following sources are to be reported as such:

- National Toxicology Program (NTP), Annual Report on Carcinogens,
- International Agency for Research on Cancer (IARC), Monographs, and
- 29 CFR 1910, Subpart Z, Toxic and Hazardous Substances, Occupational and Health Administration (OSHA).

Written Hazard Communication Program

Employers must establish a written, comprehensive hazard communication program which includes provisions for container labeling, material safety data sheets, and an employee training program. It must also 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 reactor vessels), hazards associated with chemicals in unlabeled pipes, and the way the employer will inform contractors in manufacturing facilities of the hazards to which their employees may be exposed.

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 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, appropriate hazard warnings, and the name and address of the manufacturer or 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 which convey the hazards of the chemical(s) in the container. Labels must be legible, in English (plus other languages, if desired), and prominently displayed.

Several exemptions to in-plant individual container labels are given:

- Employers can post signs or placards which convey the hazard information if there are a number of stationary containers within a work area which have similar contents and hazards.
- Various types of standard operating procedures, process sheets, batch tickets, blend tickets, and similar written materials can be substituted 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 which 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 (MSDS)

Chemical manufacturers and importers must develop material safety data sheets for each hazardous chemical they produce or import. Employers are responsible for obtaining or developing a MSDS for each hazardous chemical used in their workplaces.

The following summarizes the MSDS section in the standard 29 CFR 1910.1200. Each MSDS must be in English and include information regarding the specific chemical identity of the hazardous chemical(s) involved and the common names.

Beyond the identity information, the employer must provide information 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 material safety data sheet 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 hazards, they must be located close to workers, and readily available to them during each workshift.

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. When this standard takes effect, all employees covered by the standard must have received training equivalent to the required initial assignment training.

Information

The discussion topics must include, at least:

- The existence of this hazard communication standard and the requirements of the standard.
- The components of the hazard communication program in the employees' workplaces.
- Operations in their work area where hazardous chemicals are present.
- Where the employer will be keeping the written hazard evaluation procedures, communications program, lists of hazardous chemicals, and the required material safety data sheets.

Training

The employee training plan must consist of:

- How the hazard communication program is implemented in that workplace, how to read and interpret information on labels and MSDS, and how employees can obtain and use the available hazard information.
- The hazards of the chemicals in the work area.