

# Averting Hazards

By Dr. Scotty Dunlap



Though there are a number of hazards in the workplace that we need to address in our safety management system, OSHA's Hazard Communication regulation (29 CFR 1910.1200) specifically addresses hazards that are associated with the use of chemicals in the workplace. The purpose of this article is to explore some of the key issues covered by the regulation.

In what work environments does the regulation apply?

The Hazard Communication standard is quite lengthy and contains information targeted at three groups:

- Chemical manufacturers and importers
- Chemical distributors
- Employers

These three groups establish a complete chain of those who are involved at any given point in the manufacture, distribution, and use of a hazardous chemical. For the purposes of this discussion, we will focus solely on the third group, which is the application of the regulation to employers who use hazardous chemicals in the workplace. OSHA recognizes employers as being covered within the scope of the hazard communication regulation in 1910.1200(b)(1) where it states, "Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers."

The application of the regulation varies greatly depending on which of these groups is being addressed. The first two groups, chemical manufacturers and importers and chemical distributors, are primarily charged with the task of originating and providing information regarding the hazards of chemicals to employers through the use of Material Safety Data Sheets (MSDS). An MSDS is an information summary of a chemical that provides such detail as personal protective equipment (PPE) that should be worn when the chemical is used, first aid that should be provided if exposure has occurred, or what form of extinguishment to use if it is ignited. All of this information is critical for the third group, employers, so that an effective program can be developed to communicate the hazards of the chemical to employees and establish safe work procedures when the chemical is used.

**What chemicals are covered by the regulation?**

Chemicals covered by this regulation are those which

are considered to be hazardous. 1910.1200(d) outlines the requirements for establishing a chemical as being hazardous. The employer is not required to be involved in the process of delineating a chemical as being hazardous unless they chose to do so. The requirement for establishing a chemical as being hazardous is placed on the chemical manufacturer or importer (1910.1200(d)(1)).

The two general hazards presented by chemicals covered by this regulation are physical hazards and health hazards (1910.1200(c)). Physical hazards are those things which the chemical may physically do, such as ignite and burn or explode. Health hazards are those which can cause negative health effects on the user of the chemical, such as the chemical being a carcinogen.

One exemption to the regulation is those chemicals which are considered to be consumer products in that, "Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;" (1910.1200(b)(6)(ix)). This is sometimes referred to as the "household use" exemption. OSHA's allowance of consumer products is verified in their compliance directive which states, "It is the Agency's policy not to issue citations for consumer products unless the Compliance Safety & Health Officer (CSHO/an OSHA inspector) can document that the product was used in the workplace in a manner not intended by the manufacturer or the frequency and duration of use results in exposures that are significantly greater than those experienced by a normal consumer."

**How do you manage the large volume of MSDS's?**

According to 1910.1200(g)(8) employers are responsible to maintain copies of Material Safety Data Sheets, "The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic

*Household use items can be anything from a can of WD-40 to a bottle of cleaner that was purchased as a single item and brought into the workplace. The concept being that one can of WD-40 that a maintenance person has in their toolbox, used once in a great while (similar to work performed "around the house") is fine, but purchasing cases of it for the entire maintenance department to use daily would fall within the scope of the regulation. **Interpretive opinion***



access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)”

This can be an arduous task when considering the volume, location, and use of hazardous chemicals at even a moderate size facility. Various work environments, to include the office, maintenance, and operations, may create an environment where large numbers of hazardous chemicals are used. This issue helps to add credibility as to why the Hazard Communication standard has consistently ranked among the top of OSHA’s most cited violations. Complete compliance can be very difficult to achieve when you must first be aware of all of the hazardous chemicals that are present in the workplace and then obtain a current MSDS for each one and provide subsequent employee information and training. Keeping track of new chemicals that are introduced into the work environment can be an additional challenge. There are two systems issues that can help you.

First, establish a process by which hazardous chemicals can be approved to be used in the workplace. An individual, such as a site Safety Manager or Maintenance Manager, can act as a gatekeeper to screen the presence and use of hazardous chemicals in the workplace. Such a person should be able to add value to the system by helping to identify products that do not present a hazard to employees and to eliminate the duplication of similar hazardous chemicals in the workplace. By identifying safe alternatives, such chemicals may not be considered hazardous, thus being excluded from being under the requirements of the Hazard Communication standard. Overlap may be identified through an evaluation where it is found that numerous chemicals are in use that accomplishes the same result, allowing you to streamline hazardous chemical use down to one preferred product.

*OSHA issued a letter of interpretation that touches on this topic/concern:*

*[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=27184](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=27184)*

*This can be one of the most challenging parts of the standard. The key paragraph states, “As you may know, the MSDS must accompany the initial shipment of a hazardous chemical to the downstream user. MSDSs must be updated whenever the required information on the data sheet changes and the updated data sheet must then be sent with the next shipment of the chemical to the downstream user. MSDSs are therefore tied to the initial shipment of the chemical, and the information on the data sheet would be considered current for that particular shipment of the chemical, and remains valid until such time that the information gets updated.”*

*One way that the employer can ensure a current copy is to ensure that receiving and procurement personnel are aware of this requirement so that any MSDS’s that arrive with product shipments are forwarded to the person responsible for managing safety.*

*A second option, which requires work, is auditing. 1910.1200(g)(5) in part states, “If the chemical manufacturer, importer or employer preparing the material safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within three months.” Given the three-month reporting requirement, an employer could establish a quarterly audit by checking existing MSDS’s against the most current date available from the manufacturer (which in many cases can be found on the Internet).*

Second, create a method by which MSDS’s will be maintained. If a limited number of MSDS’s are needed in a given workplace, a low-tech option might be to simply maintain a hard copy binder to which employees have access. OSHA has been in step with technology by allowing “Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.” Though accessibility requirements to MSDS’s must be met, you are permitted to use electronic or hard copy options to achieve this goal. The electronic option has led to the growth of such online options as Dolphin (<http://dolphinmsds.com/>) for managing Material Safety Data Sheets. The system utilized must continually provide for the most updated version of an MSDS as is supported by the OSHA compliance directive, “If MSDSs are not updated when new information becomes available, the initial hazard determination performed by the chemical manufacturer or importer is deficient.”

### **What training is required?**

Employers must provide training to employees who are engaged in the use of hazardous chemicals in the workplace. As stated in 1910.1200(h)(1), “Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.”



Items to be covered in the training must include (1910.1200(h)(2)-(3):

- The requirements of OSHA's hazard communication standard
- Tasks employees engage in that involve the use of hazardous materials
- Location and how to access the written Hazard Communication Program, list of chemicals, and Materials Safety Data Sheets
- Ways to detect the presence of a hazardous chemical in the workplace
- Physical and health hazards of chemicals that are used in the workplace
- Measures used to protect employees against chemical exposure
- Details of the hazard communication program
- Chemical labeling system
- Acquisition and use of hazard information

**Q:** What if I use the same chemical, but have gotten it from different vendors?

**A:** A manufacturer-specific connection is delineated with regard to MSDS creation and acquisition in 1910.1200(g)(1), "Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Employers shall have a material safety data sheet in the workplace for each hazardous chemical which they use." Information recorded on an MSDS for the given hazardous chemical is placed there by the manufacturer, so alignment must be achieved between the product used in the workplace and the specific manufacturer.

### What are the responsibilities of the employer?

The first responsibility of the employer as delineated in 1910.1200(e) is to create and maintain a written hazard communication program. The written program must include:

- How labels and other forms of warning will be utilized (labels must include the name of the chemical and indication of the hazard that it represents)
- How MSDS's will be maintained (can be maintained for facility as a whole or among work areas)
- How employee training will be achieved
- A list of chemicals in the workplace using identifiers that correspond to the appropriate MSDS
- How employees will be informed of chemical hazards that are present in non-routine tasks
- How hazards will be managed when employees of other employers are involved, such as contractors
- How access to MSDS's will be provided to contractors
- How contractors will be informed of precautionary measures that need to be taken
- How contractors will be informed of the chemical labeling system that is in use

**O**SHA letter of Interpretation regarding "barriers to immediate employee access"

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=22340](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22340)

Please note that there are two key sentences in the interpretation letter; the first in question #2, "The employer must ensure that in each workplace there are no barriers to immediate employee access to MSDSs." And the second point, the sentence in question #3 that "employers must also ensure that employees know how to access an MSDS from such a system and that a back-up exists in case the primary system fails."

Based on the letter, the Internet can be used, but a backup system (possibly hard copy or some other local electronic system) would be needed in the event that access to the Internet was lost. It should also be noted that "lack of knowledge and ability of the employees to use the system" could likely be construed as a "barrier". If an electronic system is utilized, employees would need to be trained in its use. Interpretive opinion

A second responsibility of the employer is to obtain an MSDS for each chemical that is governed by this regulation. Though the regulation requires the manufacturer or distributor to provide an MSDS to the employer, the employer is not absolved of responsibility if this fails to occur (1910.1200(g)(6)(iii)). The employer must ensure that an MSDS is obtained for each chemical that is used. This calls into question the need to have a chemical acquisition and control procedure within the written Hazard Communication Program that delineates how chemicals are introduced into the work environment. Such a process can act as a "gatekeeper" to ensure that only approved chemicals are in use and that an MSDS has been obtained and training conducted prior to the introduction of the chemical.

A third responsibility of the employer is to provide all training and personal protective equipment (PPE) to employees who are responsible to engage in tasks that require the use of hazardous chemicals covered by the Hazard Communication Program. With few exceptions, OSHA Federal Register Final Rule 72:64341-64430 stipulates that the employer must pay for and provide PPE to employees.

### Additional Resources

- [OSHA Hazard Communication Regulation – http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10099](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099)
- [OSHA Hazard Communication Compliance Directive http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=1551](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1551)

About the author... Dr. Scotty Dunlap earned his Doctorate of Education from the University of Memphis and his MS in Loss Prevention and Safety from Eastern Kentucky University. He is a professional member of the American Society of Safety Engineers (ASSE) and is a board certified safety professional (CSP). He is currently an Assistant Professor in the ECU College of Justice & Safety and teaches at the American Laundry & Linen College.