

Hazardous Communications Act

OVERVIEW

In March 2012, the Occupational Safety and Health Administration (OSHA) revised its Hazard Communication Standard to align it with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3. The revision to the Hazard Communication Standard (HCS) built on the existing standard, by requiring chemical manufacturers and importers to follow specific criteria when evaluating the hazardous chemicals and when communicating the hazards through labels and safety data sheets (SDSs).

This document is designed to help manufacturers and importers of chemicals not only identify chemical hazards, but also to classify these hazards so that workers and downstream users can be informed about and better understand these hazards as required by OSHA's Hazard Communication Standard. This guidance may also be useful to employers who decide to conduct hazard classifications to assure the accuracy and completeness of information provided to them by suppliers.

Understanding the hazards is the critically important first stage in the process of establishing an effective hazard communication program. The process of hazard classification consists of four basic steps.

- ♣ Selection of chemicals to evaluate;
- ♣ Collection of data;
- ♣ Analysis of the collected data; and
- ♣ Records of the rationale behind the results obtained.

This document provides guidance on the processes involved and identifies considerations in the conduct of hazard classifications. Guidance on the allocation of the hazard communication label elements is provided in an OSHA Brief on Labels and Pictograms, located on the Hazard Communication webpage, at www.osha.gov/hazcom.

OSHA's Hazard Communication Standard (HCS) is designed to protect against chemical-source injuries and illnesses by ensuring that employers and workers are provided with sufficient information to anticipate, recognize, evaluate, and control chemical hazards and take appropriate protective measures. This information is provided through safety data sheets (SDSs), labels, and employee training. In order for SDSs, labels, and training to be effective, the hazard information they convey must be complete and accurate. Thus, it is critically important to obtain comprehensive and correct information about the hazards associated with particular chemicals.

What is Hazard Classification?

Hazard classification is the process of evaluating the full range of available scientific evidence to determine if a chemical is hazardous, as well as to identify the level of severity of the hazardous effect. When complete, the evaluation identifies the hazard class(es) and associated hazard category of the chemical.

The HCS defines hazard class as the nature of a physical or health hazard, e.g., flammable solid, carcinogen, and acute toxicity. Hazard category means the division of criteria within each hazard class, e.g., acute toxicity and flammable liquids each include four hazard categories numbered from category 1 through category 4. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally. That is, a chemical identified as a category 2 in the acute toxicity hazard class is not necessarily less toxic than a chemical assigned a category 1 of another hazard class. The hierarchy of the categories is only specific to the hazard class. The hazard classification process provides the basis for the hazard information that is provided in SDSs, labels, and worker training.

The hazard classification process, as provided in the Hazard Communication Standard, has several steps, including:

- ♣ Identifying the chemical;
- ♣ Identifying the relevant data regarding the hazards of a chemical;
- ♣ Reviewing the relevant data to ascertain the hazards associated with the chemical;
- ♣ Determining whether the chemical will be classified as hazardous according to the definition of hazardous chemical in the standard; and
- ♣ Determining the degree of the hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

The HCS provides specific criteria for hazard classification to ensure that chemical manufacturers, importers, and other classification experts come to similar conclusions regarding the hazards of chemicals. The resulting classification is then used to determine appropriate hazard warnings. This method not only provides employers and workers with more consistent classification of hazards, but the hazard information on SDSs and labels is in a form that is more consistent and presented in a way that facilitates the understanding of the hazards of chemicals. This hazard information can then be used when evaluating the workplace conditions to determine the hazards in the workplace, as well as to respond to exposure incidents.

The information and criteria provided in Appendix A to 29 CFR 1910.1200 are used to classify the health hazards posed by hazardous chemicals. Similarly, the information and criteria provided in Appendix B to 29 CFR 1910.1200 are used to classify the physical hazards posed by hazardous chemicals.

Hazard classification does not involve an estimation of risk. The difference between the terms hazard and risk is often poorly understood. Hazard refers to an inherent property of a substance that is capable of causing an adverse effect. Risk, on the other hand, refers to the probability that an adverse effect will occur with specific exposure conditions. Thus, a chemical will present the same hazard in all situations due to its innate chemical or physical properties and its actions on cells and tissues. However, considerable differences may exist in the risk posed by a chemical, depending on how the chemical is contained or handled, personal protective measures used, and other conditions that result in or limit exposure. This document addresses only the hazard classification process, and will not discuss risk assessment, which is not performed under the HCS.