THE IMPACT OF GHS ON DISTRIBUTORS

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
Fourth revised edition

UNITED NATIONS

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ECOLAB®
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Executive Summary

OSHA’s Hazard Communication Standard (HCS), updated in March 2012, is now aligned with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) — a global recommended standard to promote safe use and handling of chemicals and to simplify international trade by creating a harmonized classification and communication system that countries may adopt into their regulatory framework. As OSHA states, the revised HCS provides a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets (SDS). The goal is to improve the quality and consistency of hazard information in the workplace, and make it safer for workers by providing easily understandable information on appropriate handling and safe use of hazardous chemicals. This Ecolab white paper is designed to provide an overview of GHS.

As part of its more stringent guidelines, GHS requires pictograms to convey hazards when certain criteria are met. Additionally, the GHS guidelines may result in new or additional hazard statements, as well as requirements for additional personal protective equipment, even if the product itself has not changed. With the incorporation of GHS into the OSHA HCS, employers using chemicals are required to train their employees on the updated standard. All these changes took effect in the U.S. in June 2012 and have various transition timelines for compliance over the next 3.5 years (see Figure 3 for more detail). By the end of 2015, all OSHA-regulated materials must be compliant with the updated HCS. Given the number of changes resulting from GHS alignment, it is imperative that distributors are aware, and make the necessary preparations in order to maintain OSHA compliance and support their customers.

What Is GHS?

As mentioned, the United Nations developed GHS to promote safe use and handling of chemicals and simplify international trade by creating a standard classification and communication system all countries could adopt. Prior to GHS, chemicals were regulated by standards created by individual nations. The resulting regulations often were inconsistent and provided a significant burden to the regulated community without necessarily increasing protection to human health and the environment. GHS, which is
intended to provide a global standard for chemical hazard communication, was adopted by consensus in 2003 by the UN Economic and Social Council. Since 2003, GHS has progressively been adopted by various member countries around the world. It is stressed that GHS itself is not a regulation, but countries can adopt GHS into their respective regulatory framework. Additionally, there is no international implementation schedule for GHS. It is likely that different nations will require different timeframes for GHS implementation.

GHS has three primary approaches:

- Define health, physical and environmental hazards of chemicals,
- Create classification processes that use available data on chemicals for comparison with defined hazard criteria,
- Communicate hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).

Source: OSHA Website (www.osha.gov)

GHS is commonly referred to as a collection of building blocks. These building blocks provide a full range of tools for classification and communication that is available to all nations. However, when a nation or national regulatory organization (e.g., OSHA) chooses to adopt GHS, it is not required to adopt the full range of building blocks. Countries can determine which of the building blocks will be applied in their hazard communication systems (consumer, workplace, transport, pesticides, etc.). This leads to creation, or recreation of a chemical classification system, and the resulting classifications are frequently represented visually by pictograms as highlighted in Figure 1.

GHS pictograms and lower-level hazard statements are comprised of standards, such as black pictograms with red diamond borders and common terminology. Each level of the communication system is linked to the level above - signal words are valid for specific pictograms, hazard statements relate to specific signal words, etc.
GHS pictograms are only one element in a more complete communication system that span the spectrum from general product and ingredient information to explicit first aid based on inherent risks as shown in Figure 2. The information contained in the hazard communication on the product label is also integral to the SDS. As required by the previous HCS, the label and Safety Data Sheets must align.
How Does GHS Impact My Business?

Distributors will soon begin seeing hazard communication documents (e.g., safety data sheets, product labels) from suppliers that have been developed to be compliant with the new OSHA GHS rule. Changes in these documents due to GHS may be confusing, so it is important to note these changes do not affect how packaged chemical products are stored, handled or transported by distributors. The major impact of GHS on distributors is in three primary areas:

1. Requirement to train all workers on the new rule.
2. New product classifications due to GHS may raise questions from end-user customers and necessitate communication strategies.
3. Following the end of the transition period, all distributed products sold must be GHS compliant.
As part of the implementation of GHS, OSHA requires employers who have employees that may come into contact with hazardous workplace chemicals to train these employees on the new rule. OSHA governs the identification of hazards associated with usage of chemicals in the workplace. Though distributor employee interaction with chemical products may be limited during typical storage, handling, and transport; it is critical that employees be aware of the new requirements of GHS and properly understand workplace hazards communicated via chemical product labels and safety data sheets. OSHA has established a December 1, 2013 deadline for training employees on the updated HCS.

The primary purpose of this rule is to increase understanding, thus enhancing safety and ultimately reducing accidents during chemical usage. Supplier product labels, safety data sheets, and product information sheets will be required to include the most appropriate risk mitigation approaches for safe use of their chemical product(s). Examples of such approaches may include use of personal protective equipment (e.g., protective eye wear, gloves), engineering controls (e.g., local exhaust ventilation), as well as good standard industrial hygiene (e.g., washing hands after handling). The timeline for GHS implantation is highlighted in Figure 3 below.

**Figure 3: OSHA Implementation Timeline for GHS**

![Timeline Diagram]

Source: OSHA website (www.osha.gov)

A second area of impact for distributors is possible changes in the classification of chemical products in terms of their physical, health, and environmental hazards. Therefore, the signal word (i.e., “DANGER,” “WARNING”) may change as well as associated hazard statements (e.g., “Causes severe skin burns and eye damage.”). Additionally, as already noted, GHS uses pictograms to visually convey hazards. The use of pictograms is not new to many regulatory jurisdictions outside of the U.S. (such as the European Union) or even some authoritative bodies within the U.S. (such as Department of Transportation [DOT] pictograms). However, broad use of pictograms is new to OSHA. Such changes in signal word, hazard statements, and the use of pictograms likely will trigger questions for end-user customers. In most circumstances Distributors will not be in a position to directly answer the customer’s questions.
Therefore, distributors must anticipate and prepare for customer questions in order to minimize potential confusion. It is recommended that distributors develop a communication strategy around this issue. Reputable sources for information on GHS are highlighted below in the “Where Do I Go for Assistance” portion of this white paper.

Lastly, the third major impact is that once the transition period for GHS implementation ends on December 1, 2015, all products sold by distributors must be compliant with GHS. This means distributors must require chemical suppliers to provide properly labeled products and associated safety data sheets prior to that deadline to maintain compliance. Of course, distributors and suppliers should coordinate to smooth the transition and have strategies in place for products that may present difficulties. Slower-moving items will be more challenging.

It should be noted that during implementation, materials can be classified and labeled under the old HCS, the new HCS modified per GHS, or both. However, by June 1, 2015, all suppliers must be in compliance with GHS version of the OSHA Hazard Communication Standard. Distributors are given a six month grace period to clear inventory, once all suppliers must be in compliance, and have a deadline of December 1, 2015 for compliance.

**Where Do I Go for Assistance?**

Your chemical supplier is of course your primary source for information related to GHS. They should be able to supply timelines and compliance plans, as well as information on changes to their safety data sheets and product labels. Additional and more detailed information can be found at the links below:

**United States - OSHA:**

[www.osha.gov/dsg/hazcom/index](http://www.osha.gov/dsg/hazcom/index)


**Canada - CCOHS**


[www.ccohs.ca/newsletters/hsreport/issues/2012/03/ezine.html#inthenews](http://www.ccohs.ca/newsletters/hsreport/issues/2012/03/ezine.html#inthenews)

**Ecolab:**

[www.ecolab.com](http://www.ecolab.com)

**United Nations:**

[www.unece.org/trans/danger/publi/ghs/ghs_welcome_e](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e)