

TerranearPMC Safety Share

Week of April 2, 2012- Globally Harmonized System

On March 26, 2012, the United States Occupational Safety and Health Administration (OSHA) released its final rule to revise the Hazard Communication Standard (HCS) for the purpose of aligning its requirements with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Dr. David Michaels, Assistant Secretary of Labor for Occupational Safety and Health, came forward and stated that as part of its efforts to work within the GHS, employers are required to have their employees trained to the new standard by December 1, 2013. This training will focus on new label elements and a new safety data sheet format. Compliance with the rule is expected by June 1, 2015 (with a few exceptions), while the revised standard will be fully implemented by 2016.

This is a major change to our current HCS (as presented in 29 CFR 1910.1200 for general industry and 29 CFR 1926.59 for the construction industry) where the United States shall be formatting the specific hazards of chemicals to employees, thereby providing uniformity as to how such hazards are communicated from a global perspective. As a result, this will allow workers throughout the world to understand the materials they may be working with and how to properly handle and protect themselves by easing the burden of language barriers; regardless of the potential differences between where a product is manufactured and the location of final use.

In recent decades, chemicals have become an increasingly global commodity. Industries located in some of the farthest reaches of our planet now demand a wide range of chemicals – many of which are hazardous to human health and the environment. In 1992 the United Nations (U.N.) began working on a solution to eliminate the international confusion that surrounds the identification of hazardous chemicals. In 2002 the U.N. released a draft of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). All governments, with or without their own system, were encouraged to adopt GHS standards and many have been gradually incorporating the system into their own codes. And now the United States shall be joining this international community.

Within the hazard communications framework, there are three components that are designed to provide employees with proper information regarding chemical hazards: labels, Safety Data Sheets (previously referred to as Material Safety Data Sheets), and employee training. Labels provide a brief, but immediate and conspicuous, summary of hazard information at the location where the chemical is used. Safety Data Sheets (SDSs) provide detailed technical information and serve as a reference source for exposed employees, industrial hygienists, safety professionals, emergency responders, health care professionals and other interested parties. Training is designed to ensure that employees understand the chemical hazards in their workplace and are aware of protective measures.

As part of OSHA's revision to its HCS, labels shall conform to international practices regarding design, colors and pictures. Labels shall be made with red frames/borders, thus making the label more noticeable. GHS comes with its own library of pictograms for labeling hazardous chemicals. Each pictogram describes a specific hazard characteristic and up to four standard GHS pictograms may appear on a single label. Standard GHS pictograms are surrounded with a red diamond and the pictogram itself is printed in black. Transportation GHS pictograms vary in color and alert workers of chemical hazards during transportation. Some of these pictograms provide carriers with greater chemical detail and bright colors improve legibility at a distance. For each class and category of hazard, a harmonized signal word, pictogram and hazard statement needs to be specified. An example would be using the word, *Danger*, with the pictogram of a skull and crossbones followed by the statement "fatal if swallowed."

The GHS has established 16 sections within the SDS and is designed to provide a consistent sequence for presentation of information to SDS users. Items of primary interest to exposed employees and emergency responders are presented at the beginning of the document while more technical information is presented in later sections. Headings for the sections, such as First-Aid Measures, Handling and Storage, are standardized to facilitate locating information of interest. It should be noted that the GHS SDS format is consistent with the order of information as presented in ANSI Z400.1, which is a voluntary industry consensus standard for SDSs.

Another change expected on SDSs is the way in which unclassified hazards are communicated as the new system focuses on the importance of promoting predictability and the reduction of uncertainty for those chemicals or chemical components that fall outside of the typical hazard category system. As such, to minimize confusion, OSHA has re-categorized those materials that have been previously listed as "hazards not otherwise classified," into specific definitions. Such hazards are pyrophoric gases, simple asphyxiants and combustible dust. These changes shall also involve standardized labeling elements as well.

Not only will these revisions affect the current HCS, but other OSHA regulations will also need to be revised (as there will need to be a consistency throughout the OSHA regulatory framework). Such standards that will be effected and, therefore, require revisions, include Flammable and Combustible Liquids (29 CFR 1910.106) and construction (29 CFR 1926.152), thereby aligning itself with the GHS flammable liquids category.

As we move closer to the December 1, 2013 deadline for training requirements, we expect OSHA to provide more information to ensure meeting the new requirements will proceed in a relatively smooth and seamless fashion. As new information is presented, we shall be passing it on to you.

**The elevator to success is out of order. You'll have to use the stairs...
one step at a time - Joe Girard (Author and Motivational Speaker)**