



February 2012 Safety Topic of the Month

Global Harmonization System

What is the Global Harmonization System (GHS)?

The GHS is an international plan that will simplify how we classify, label and communicate chemical hazards. The primary ways that the present system of chemical risk management will change includes the following areas:

- How chemicals are classified
- How chemicals are labeled
- How material safety data sheets (MSDS) are formatted and named

The Occupational Safety and Health Administration (OSHA) is adopting the GHS and the final rule is anticipated to be published soon. Major proposed changes include:

- Hazard classification: Provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.
- Labels: Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.
- Material Safety Data Sheets (MSDS): Will now have a standardized 16-section format and will be called safety data sheets (SDS). The consistent format will make it easier for exposed employees and emergency responders to access important, need-to know information on hazardous chemicals.
- Information and training: The GHS does not address training. However, the proposed regulations will require that workers are trained within two years of the publication of the final rule to facilitate recognition and understanding of the new labels and safety data sheets.

It is anticipated that application of the GHS will:

- Enhance the protection of human health and the environment by providing an internationally comprehensible system,
- Provide a recognized framework to develop regulations for those countries without existing systems,
- Facilitate international trade in chemicals whose hazards have been identified on an international basis,
- Reduce the need for testing and evaluation against multiple classification systems.

Discussion Topics

- 1) Manufacturers will have three years after the final rule is published to convert existing MSDS to the SDS format. Existing MSDS will need to be updated with the SDS versions as they become available.
- 2) URI's conversion to a new web-based chemical inventory system is anticipated to occur during the upcoming year (see January Safety Topic of the Month for more details). The new system will incorporate electronic copies of MSDS and will make it easier to convert to the new SDS.
- 3) New chemical purchases (especially those from suppliers that do business internationally) may already have the GHS labels. The new GHS Pictograms can be reviewed on the next page.
- 4) The EHS office will be updating our Prudent Practice and HAZCOM training to incorporate more information about GHS once the final rule is published.










References

OSHA GHS Guidance - <http://www.osha.gov/dsg/hazcom/ghs.html>

OSHA GHS Website - <http://www.osha.gov/dsg/hazcom/global.html>

Safetec – “The Globally Harmonized System (GHS) of Classification and Labeling of Chemicals”

GHS Pictograms and Hazard Classes

		
<ul style="list-style-type: none"> ▪ Oxidizers 	<ul style="list-style-type: none"> ▪ Flammables ▪ Self Reactives ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Organic Peroxides 	<ul style="list-style-type: none"> ▪ Explosives ▪ Self Reactives ▪ Organic Peroxides
		
<ul style="list-style-type: none"> ▪ Acute toxicity (severe) 	<ul style="list-style-type: none"> ▪ Corrosives 	<ul style="list-style-type: none"> ▪ Gases Under Pressure
		
<ul style="list-style-type: none"> ▪ Carcinogen ▪ Respiratory Sensitizer ▪ Reproductive Toxicity ▪ Target Organ Toxicity ▪ Mutagenicity ▪ Aspiration Toxicity 	<ul style="list-style-type: none"> ▪ Environmental Toxicity 	<ul style="list-style-type: none"> ▪ Irritant ▪ Dermal Sensitizer ▪ Acute toxicity (harmful) ▪ Narcotic Effects ▪ Respiratory Tract ▪ Irritation