

Safety Bugle



Today's Topic: Revised Hazard Communication Standard - Globally Harmonized System (GHS)

Changes to the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard are bringing the United States into alignment with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). GHS is a system that defines and classifies the hazards of chemical products, and communicates health and safety information on labels and material safety data sheets (which are now called Safety Data Sheets, in the new system). The goal is that the same set of rules for classifying hazards, and the same format and content for labels and safety data sheets (SDS) will be adopted and used around the world.

The new hazard communication standard still requires chemical manufacturers and importers to evaluate the chemicals they produce or import and provide hazard information to employers and workers by putting labels on containers and preparing data sheets. However, the old standard allowed chemical manufacturers and importers to convey hazard information on labels and data sheets in whatever format they chose. The modified standard provides a single set of harmonized criteria for classifying chemicals according to their health and physical hazards and specifies hazard communication elements for labeling and safety data sheets.

Major changes to the Hazard Communication Standard
Hazard classification: Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import. Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.

Labels: With the GHS system, certain information will appear on the label. For example, the chemical identity is required. Standardized hazard statements, signal words and symbols will appear on the label according to the classification of that chemical or mixture.

Pictogram: a symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a red square frame set on a point (i.e. a red diamond). There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS.

Signal words: a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger"

and "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards. Hazard Statement: a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Precautionary Statement: a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling of a hazardous chemical.

Safety Data Sheets: The new format requires 16 specific sections, ensuring consistency in presentation of important protection information.

- Section 1, Identification
- Section 2, Hazard(s) identification
- Section 3, Composition/information on ingredients
- Section 4, First-aid measures
- Section 5, Fire-fighting measures
- Section 6, Accidental release measures
- Section 7, Handling and storage
- Section 8, Exposure controls/personal protection
- Section 9, Physical and chemical properties
- Section 10, Stability and reactivity
- Section 11, Toxicological information
- Section 12, Ecological information
- Section 13, Disposal considerations
- Section 14, Transport information
- Section 15, Regulatory information
- Section 16, Other information

Information and training: The new standard requires that workers be trained on the new label elements and safety data sheet format, in addition to the current training requirements.

Health Hazard	Flame	Exclamation Mark
<ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	<ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self-Reactives• Organic Peroxides	<ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity (Harmful)• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (Non Mandatory)
<ul style="list-style-type: none">• Gases under Pressure	<ul style="list-style-type: none">• Skin Corrosion/ burns• Eye Damage• Corrosive to Metals	<ul style="list-style-type: none">• Explosives• Self-Reactives• Organic Peroxides
<ul style="list-style-type: none">• Oxidizers	<ul style="list-style-type: none">• Aquatic Toxicity	<ul style="list-style-type: none">• Acute Toxicity (Fatal or Toxic)