

Chemical Labels and Symbols

Did you know that new chemical labels that meet the UN Globally Harmonized System (GHS) standard are now appearing on chemical containers? The reason for these changes is due to the alignment of the Hazard Communication Standard with the UN GHS. The chemical label now has a new look with six distinct parts. The example below contains highlighted areas covering the six new sections which include a harmonized signal word (*Danger* or *Warning*), pictograms and hazard statements for each hazard class and category. Precautionary statements such as first aid, firefighting, and safe use and handling instructions are also required.

You can find additional information on the new GHS system here:

<http://www.ehs.wisc.edu/chem-regulatorycompliance-hazardcommunication-hazardcommunicationoverview.htm>


Six Parts of the New Chemical Label

1

2


3

4



[Danger!]

**[ToxiFlam (Contains: XYZ)
Toxic If Swallowed, Flammable Liquid and Vapor]**



5

Do not eat, drink or use tobacco when using this product. Wash hands thoroughly after handling. Keep container tightly closed. Keep away from heat/sparks/open flame. – No smoking. Wear protective gloves and eye/face protection. Ground container and receiving equipment. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Store in cool/well-ventilated place.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician. Rinse mouth.

In case of fire, use water fog, dry chemical, CO₂, or “alcohol” foam.

See Material Safety Data Sheet for further details regarding safe use of this product

6

[MyCompany, MyStreet, MyTown, NJ 00000, Tel: 444 999 9999]

1: Chemical Name 2: Signal Word 3: Hazard Statement 4: Pictogram 5: Precautionary Statement 6: Generator

The most colorful addition to the new chemical label is the pictogram. The updated Hazard Communication Standard requires the use of eight pictograms as identified in the chart below. The chart not only provides the pictograms but also chemical examples for each pictogram and the specific hazards associated with it. Pictograms are the shape of a square set at a point and include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

What Do The Pictograms Mean?

Pictograms	Examples	Hazards
 Explosion Bomb	<ul style="list-style-type: none"> • Explosives • Self-Reactive • Organic Peroxides 	May explode if exposed to fire, heat, shock or friction.
 Flame	<ul style="list-style-type: none"> • Flammables • Pyrophoric • Self-Heating • Emits Flammable Gas • Self-Reactive • Organic Peroxides 	Flammable if exposed to ignition sources, sparks, heat. Some substances may give off flammable gases in contact with water.
 Flame Over Circle	<ul style="list-style-type: none"> • Oxidizers 	Can burn even without air or can intensify fire in combustible materials.
 Gas Cylinder	<ul style="list-style-type: none"> • Gas Under Pressure 	Contains gas under pressure. Gas container may explode if heated or gas released may be very cold.
 Corrosion	<ul style="list-style-type: none"> • Corrosives 	Corrosive material which may cause skin burns and permanent eye damage. May corrode metals.
 Skull and Crossbones	<ul style="list-style-type: none"> • Acute Toxicity (severe) 	Toxic material which may cause life threatening effects even in small amounts and with short duration.
 Health Hazard	<ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizers • Target Organ Toxicity • Aspiration Toxicity 	May cause serious and prolonged health effects on short or long term exposure.
 Exclamation Mark	<ul style="list-style-type: none"> • Irritant • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritation • Hazardous to Ozone Layer 	May cause irritation (redness, rash) or less serious toxicity. May damage the ozone layer.

Source: Chemical Hazards Communication Society, United Kingdom.

The intent of a pictogram is to convey the physical and health hazards that are assigned with a GHS hazard class and category by using pictograms. These pictograms represent internationally recognized hazard symbols as well. Some hazards share the same pictogram. For example, explosives, organic peroxides and self-reactive hazard classes are all represented by the symbol of an exploding bomb. Chemicals can be represented by more than one pictogram if multiple hazards exist.

Training on the recent GHS changes to the Hazard Communication Standard must be completed by December 1, 2013 as mandated by OSHA. The training includes information on the new chemical label as well as the 16 sections of the Safety Data Sheet (formerly Material Safety Data Sheet). Training is available through multiple options that include monthly live classes offered through OHRD as well as online classes through Learn@UW. The Campus Hazard Communication Coordinator can complete the training at your location for your convenience. Please contact Joyce Hinds at jhinds@fpm.wisc.edu or 608-890-3993 to schedule training or for additional information.

A poster identifying the new label elements is available for download here:

March 2013

For More Information Contact:

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