



Overview: Globally Harmonized System

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) is a system for standardizing the classification and labeling of hazardous chemicals used in the workplace. The GHS takes a comprehensive approach to:

- Defining health, physical and environmental hazards of chemicals.
- Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria.
- Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDSs).

United Heartland is committed to providing and directing our customers to helpful resources regarding exposures to hazardous drugs and chemicals. Contact our team of specialists for more information at 800-258-2667.

UnitedHeartland.com
1-800-258-2667

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Labels

OSHA requires labeling of hazardous chemicals under its Hazard Communication Standard (HCS). All labels are required to include the following features:

- **Pictograms** – Symbols on a white background framed within a red border.
- **Signal Words** – Words to alert the severity of the hazard such as DANGER or WARNING.
- **Hazard Statements** – A standardized statement to describe each hazard class.
- **Precautionary Statements** – A list of precautionary actions and best practices.
- **Product Identification** – This includes information such as the code and product name.
- **Supplier/Manufacturer Identification** – Company name, address and emergency phone number.

Labels: Secondary Containers

- Secondary labeling systems are still permitted
- Must be consistent with the HazCom standard
- Must not present conflicting information
- May use written materials in lieu of affixing labels to individual stationary process containers

Pictograms

HCS requires pictograms on labels consisting of a symbol on a white background framed within a red border. There are nine total symbols (eight regulated by OSHA).

Health Hazard



- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame



- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

Exclamation Mark



- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder



- Gases Under Pressure

Corrosion



- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle



- Oxidizers

Environment



- Aquatic Toxicity (Non-Mandatory)

Skull and Crossbones



- Acute Toxicity (Fatal or toxic)
- Pirates



Chemical Classifications

Previously, chemical hazards were evaluated in a relatively subjective manner. Chemicals must now go through a specific, prescriptive classification process to determine which hazards are present and which hazard and precautionary statements apply. This system also establishes both hazard classes and hazard categories – for most of the effects. The classes are divided into categories that reflect the relative severity of the effect.

Health Hazard Categories

- Acute Toxicity
- Skin Corrosion/Irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive Toxicity
- Specific Target Organ Toxicity – Single Exposure
- Specific Target Organ Toxicity – Repeated Exposure
- Aspiration
- Simple Asphyxiates

Physical Hazard Categories

- Explosives
- Flammable Aerosols
- Oxidizing Gases
- Gases under Pressure
 - Compressed Gases
 - Liquefied Gases
 - Refrigerated Liquefied Gases
 - Dissolves Gases
- Flammable Liquids
- Flammable Solids
- Self-Reactive Chemicals
- Pyrophoric Liquids
- Pyrophoric Solid
- Pyrophoric Gases
- Self-heating Chemicals
- Chemicals, which in contact with water, emit flammable gases

Environmental Hazard Categories (not regulated by OSHA)

Safety Data Sheets

OSHA's Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) formerly known as Material Safety Data Sheets (MSDSs) to communicate the dangers of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, headings and associated information under the headings below:

- **Section 1, Identification:** Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.
- **Section 2, Hazard(s) Identification:** Includes all hazards regarding the chemical; required label elements.
- **Section 3, Composition/Information on Ingredients:** Includes information on chemical ingredients; trade secret claims.
- **Section 4, First-aid Measures:** Includes important symptoms/effects, acute, delayed; required treatment.
- **Section 5, Fire-Fighting Measures:** Lists suitable extinguishing techniques, equipment; chemical hazards from fire.
- **Section 6, Accidental Release Measures:** Lists emergency procedures; protective equipment; proper methods of containment and cleanup.
- **Section 7, Handling and Storage:** Lists precautions for safe handling and storage, including incompatibilities.
- **Section 8, Exposure Controls/Personal Protection:** Lists OSHA's Permissible Exposure Limits; Threshold Limit Values; appropriate engineering controls; personal protective equipment.
- **Section 9, Physical and Chemical Properties:** Lists the chemical's characteristics.
- **Section 10, Stability and Reactivity:** Lists chemical stability and possibility of hazardous reactions.
- **Section 11, Toxicological Information:** Includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.
- **Section 12, Ecological information**
- **Section 13, Disposal considerations**
- **Section 14, Transport information**
- **Section 15, Regulatory information**
- **Section 16, Other Information:** Includes the date of preparation or last revision.

Employers are required to maintain copies of all SDSs for the chemicals used and/or stored within the work area. They should have a system to ensure all SDSs are present and to periodically check for the most current SDS (based on revision date) when received from a manufacturer, importer or distributor

Training Resources

Training is an important part of any safety program, and our staff can help by reviewing your training needs and offering consultation to improve its effectiveness. Contact your United Heartland Loss Control representative to discuss your current training needs.

