

OSHA's Updated Hazard Communication Standard

Management Brief

The Occupational Safety and Health Administration (OSHA) has updated the Hazard Communication Standard (HCS) to bring it into alignment with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). OSHA expects the new HCS to prevent injuries and illnesses, save lives and improve trade conditions for chemical manufacturers. Since its publication in 1983, The Hazard Communication Standard has given American workers the 'right to know.' The goal of the new HCS Standard and of GHS is to give American workers the 'right to understand.' The Federal Register published the final rule on March 26, 2012. Its effective date was May 26, 2012 (60 days after the date of publication).

Aligning the HCS with the GHS increases the quality and consistency of information about chemicals that is available to workers, employers and chemical users because the GHS creates a standardized approach to hazard classification, labels and safety

MEADOWBROOK
INSURANCE GROUP

STAR
INSURANCE COMPANY

Williamsburg
NATIONAL
INSURANCE COMPANY

AMERITRUST
INSURANCE
CORPORATION

SAVERS
PROPERTY
& CASUALTY
INSURANCE
COMPANY

PRO
CENTURY

PRODUCT IDENTIFIER

CODE

Product Name

SUPPLIER IDENTIFICATION

Company Name

Street Address

City

State

Postal Code

Country

Emergency Phone Number

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.

Keep away from heat/sparks/open flame. No smoking.

Only use non-sparking tools.

Use explosion-proof electrical equipment.

Take precautionary measure against static discharge.

Ground and bond container and receiving equipment.

Do not breathe vapors.

Wear Protective gloves.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Dispose of in accordance with local, regional, national, international regulations as specified.

In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO₂) fire extinguisher to extinguish.

First Aid

If exposed call Poison Center.

If on skin (on hair): Take off immediately any contaminated clothing.

Rinse skin with water.

HAZARD PICTOGRAMS



SIGNAL WORD

Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.

May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use

Fill weight:

Lot Number

Gross weight:

Fill Date:

Expiration Date:

Sample GHS Label

The purpose of this document is to assist you with your risk management practices. Keep in mind that other exposures may exist in your operation that present varying degrees of risk. Although this information may assist you in your risk management efforts, it does not address every loss producing condition that exists currently or that may develop in the future.

OSHA's adoption of the GHS enhances the HCS but does not change its framework or scope. The GHS establishes a single set of harmonized criteria for classifying chemicals according to their health and physical hazards. It also specifies hazard communication elements for labeling and safety data sheets. Under the GHS, labels will use signal words, pictograms, and hazard and precautionary statements.

Including new elements such as pictograms and precautionary statements on labels and adopting a consistent format for Safety Data Sheets (formerly Material Safety Data Sheets) should increase worker comprehension and result in appropriate handling and use of chemicals. The harmonized format of the safety data sheets will enable workers to access important information more efficiently. Each sheet will have a standardized format of sixteen sections that will always appear in the same order regardless of chemical, manufacturer, or country.

Furthermore, the adoption of GHS worldwide eliminates the need to develop multiple labels and safety data sheets for the same product when shipped to different countries, minimizing the compliance burden for chemical manufacturers and those involved in international trade.

Hazard Communication Standard

















Under the HCS and to promote chemical safety in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers. OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information:

- Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import, and prepare labels and safety data sheets to convey the hazard information to their downstream customers;
- All employers with hazardous chemicals in their workplaces must have labels and safety data sheets for their exposed workers, and train them to handle the chemicals appropriately.

There are four major changes to the HCS:

- HCS 2012 provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.

GHS Classification of Chemicals	
The GHS classifies chemicals based on physical, health and environmental standards. Criteria for those hazards are as follows.	
Explosives	Flammable Gases
Flammable Aerosols	Oxidizing Gases
Gases Under Pressure	Flammable Liquids
Flammable Solids	Oxidizing Solids
Self-Reactive Substances and Mixtures	Oxidizing Liquids
Self-Heating Substances and Mixtures	Pyrophoric Liquids
Pyrophoric Solids	Organic Peroxides
Acute Toxicity - Oral	Acute Toxicity - Dermal
Acute Toxicity - Inhalation	Skin Corrosion/Irritation
Eye Damage/Eye Irritation	Germ Cell Mutagenicity
Sensitization - Respiratory	Carcinogenicity
Sensitization - Skin	Reproductive Toxicity
STOST - Single Exposure	Aspiration Hazard
STOST - Repeated Exposure	
Hazardous to the Aquatic Environment - Acute Hazard	
Hazardous to the Aquatic Environment - Chronic Hazard	

Old		New
	→ Corrosive →	
	→ Flammable →	
	→ Irritant →	
	→ Acute Toxicity →	
	→ Oxidizer →	
	→ Explosive →	
	→ Environmental Hazard →	
	Compressed Gas	
	Respiratory Hazard	

2. It is now a requirement that chemical manufacturers and importers provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Labels must also include precautionary statements.
3. Safety Data Sheets have a specified 16-section format.
4. Employers must train workers by December 1, 2013 on the new labels elements and safety data sheets format to facilitate recognition and understanding.

Implementation Timeline

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and SDS format.	Employers
June 1, 2015 December 1, 2015	Comply with all modified provisions of this final rule, except for: Distributors may ship products labeled by manufacturers under the old system until December 1, 2015.	All employers, chemical manufacturers, importers, and distributors
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition Period	Comply with either 29 CFR 1910.1200 (this final standard), or the current standard, or both.	All employers, chemical manufacturers, importers, and distributors

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards 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, the 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 (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

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 16, Other information, includes the date of preparation or last revision.

Other agencies enforce the requirements found in the following sections of the Safety Data Sheets:

Section 12, Ecological information

Section 13, Disposal considerations

Section 14, Transport information







Section 15, Regulatory information




Employers must ensure that SDSs are readily accessible to employees.

Hazard Communication Standard Pictograms

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may have exposure. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The chemical hazard classification determines which pictogram appears on the label.

HCS Pictograms and Hazards

<p style="text-align: center;">Health Hazard</p>  <ul style="list-style-type: none"> ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity 	<p style="text-align: center;">Flame</p>  <ul style="list-style-type: none"> ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides 	<p style="text-align: center;">Exclamation Mark</p>  <ul style="list-style-type: none"> ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
<p style="text-align: center;">Gas Cylinder</p>  <ul style="list-style-type: none"> ▪ Gases Under Pressure 	<p style="text-align: center;">Corrosion</p>  <ul style="list-style-type: none"> ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals 	<p style="text-align: center;">Exploding Bomb</p>  <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides

<p style="text-align: center;">Flame Over Circle</p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> ▪ Oxidizers 	<p style="text-align: center;">Environment (Non-Mandatory)</p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> ▪ Aquatic Toxicity 	<p style="text-align: center;">Skull and Crossbones</p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> ▪ Acute Toxicity (fatal or toxic)
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Employer Responsibilities

Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace. This may be done in many ways. For example, employers may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency. Furthermore, employers may want to designate a person(s) responsible for obtaining and maintaining the SDSs. If the employer does not have an SDS, the employer or designated person(s) should contact the manufacturer to obtain one.

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 safety data sheets. However, the old standard allowed chemical manufacturers and importers to convey hazard information on labels and material safety 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.

What you need to do and when:

- **Chemical users:** Continue to update safety data sheets when new ones become available, provide training on the new label elements and update hazard communication programs if new hazards are identified.

Consider involving your responding fire department in any training you provide your employees and inform the fire department of any changes in your processes that you make as result of the revised HSCS. NFPA was not part of this change so local fire departments will not be likely to be aware of these changes that can drastically change how they respond to emergencies of a chemical nature. This could put them in a dangerous situation without knowing it.
- **Chemical Producers:** Review hazard information for all chemicals produced or imported, classify chemicals according to the new classification criteria, and update labels and safety data sheets.

Additional information: More information on the hazard communication standard, including the link to the Federal Register notice, go to OSHA's hazard communication safety and health topics page at www.osha.gov/dsg/hazcom/index.html.

Sources: www.osha.gov/dsg/hazcom/index.html.

Information on the differences between HCS`1994 and HCS2012: <http://www.osha.gov/dsg/hazcom/side-by-side.html>