

# Revised Hazard Communication Standard: Aligning with the GHS



*“Right to Know” vs. “Right to Understand”*

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# Disclaimer

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This information has been developed by an OSHA Compliance Assistance Specialist and is intended to assist employers, workers, and others as they strive to improve workplace safety and health. While we attempt to thoroughly address specific topics, it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in a presentation of this nature. Thus, this information must be understood as a tool for addressing workplace hazards, rather than an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. Likewise, to the extent that this information references practices or procedures that may enhance health or safety, but which are not required by a statute, regulation, or standard, it cannot, and does not, create additional legal obligations. Finally, over time, OSHA may modify rules and interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at [www.osha.gov](http://www.osha.gov).

# Overview

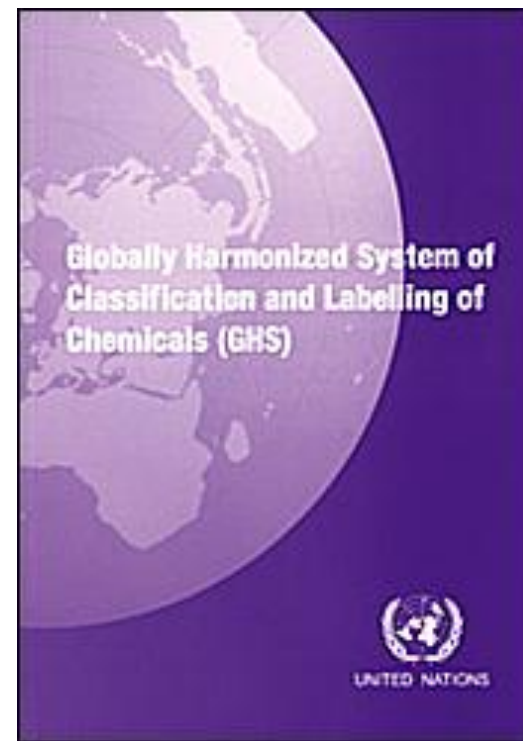
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- ▶ What is the Globally Harmonized System (GHS)?
  - Why adopt GHS
  - Principles & Assumptions
- ▶ What it Means to You
- ▶ Overview of the New Hazard Communication Standard (HCS 2012)
- ▶ Guidance Products

# What is the Globally Harmonized System (GHS)?

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- ▶ GHS is an international approach to hazard communication, providing:
  - agreed criteria for classification of chemical hazards, and
  - a standardized approach to label elements and safety data sheets.
- ▶ Negotiated in a multi-year process by hazard communication experts from many different countries, international organizations, and stakeholder groups.



# Why Did OSHA Align the HCS with GHS?

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- ▶ To increase the quality and consistency of information, through:
  - Harmonized definitions of hazards
  - Specific criteria for labels
  - Harmonized format for safety data sheets
- ▶ OSHA modified only the provisions of the HCS necessary to align with the GHS.
- ▶ Basic framework of the HCS remains the same.
- ▶ OSHA has maintained the overall current level of protection of the HCS

# Basic Principles of HCS Remain Unchanged

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# What Does it Mean to You?

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## Employers

- Training on label elements – pictograms, signal words, hazard statements and precautionary statements (by Dec. 1, 2013)
- Training on new SDS format (by Dec. 1, 2013)
- Continue to maintain the updated SDSs

## For Manufacturers

- Initial start-up costs associated with reclassification, producing new labels, safety data sheets, training.

# Organization of the Final Rule

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- (a) Purpose
- (b) Scope and Application
- (c) Definitions**
- (d) Hazard Classification**
- (e) Written Hazard Communication Program
- (f) Labels and Other Forms of Warning**
- (g) Safety Data Sheets**
- (h) Employee Information and Training**
- (i) Trade Secrets
- (j) Effective Dates**



# Notable Changes

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- ▶ “hazard classification” vs. “hazard determination” (along with related terms)
- ▶ Specifically defined label elements
  - Product identifier
  - Signal word(s)
  - Hazard statement(s)
  - Pictogram(s)
  - Precautionary statement(s)
  - Name, address and telephone number
- ▶ Safety Data Sheets (SDS)
  - Formalized the format and changed the name
- ▶ Technical requirements moved to the Appendices

# Appendices

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- ▶ Appendix A, Health Hazard Criteria (Mandatory) (NEW)
- ▶ Appendix B, Physical Hazard Criteria (Mandatory) (NEW)
- ▶ Appendix C, Allocation of Label Elements (Mandatory) (NEW)
- ▶ Appendix D, Safety Data Sheets (Mandatory) (NEW)
- ▶ Appendix E, Definition of “Trade Secret” (Mandatory)
- ▶ Appendix F, Guidance for Hazard Classifications re: Carcinogenicity (Non–Mandatory) (NEW)

## (c) Definitions

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- ▶ All definitions for the GHS are located at 1900.1200(c)
- ▶ Under this final rule, physical hazard criteria are more detailed and are provided in Appendix B rather than in paragraph (c)
- ▶ Some definitions were removed (eg, MSDS) or modified and others added as necessary

# Ex: Hazards Not Otherwise Classified

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- ▶ This definition was added to ensure that hazards currently covered by HCS continue to be covered

**“Hazard not otherwise classified (HNOC)”** means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/ concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

# Ex: Hazards Not Otherwise Classified

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- ▶ Information will be required on the safety data sheets in Section 2
- ▶ Hazard information on the label, is not mandatory, but can be provided under supplementary information
- ▶ Such hazards must also be addressed in worker training

## (d) Hazard Classification

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- ▶ Chemical manufacturers and importers classify each chemical they produce or import
  - Using Appendix A for health hazard criteria, and
  - Appendix B for physical hazard criteria
  - Chemicals may fit into more than one hazard class
- ▶ Most of these hazard classes are also sub-divided into “hazard categories” to reflect the severity of the effect
- ▶ Hazard classification provides the basis for the hazard information that is provided on labels, SDSs and in employee training

# Appendix A: Health Hazards

Hazard Class	Hazard Category			
Acute Toxicity	1	2	3	4
Skin Corrosion/Irritation	1A	1B	1C	2
Serious Eye Damage/ Eye Irritation	1	2A	2B	
Respiratory or Skin Sensitization	1			
Germ Cell Mutagenicity	1A	1B	2	
Carcinogenicity	1A	1B	2	
Reproductive Toxicity	1A	1B	2	Lactation
STOT – Single Exposure	1	2	3	
STOT – Repeated Exposure	1	2		
Aspiration	1			
<i>Simple Asphyxiants</i>	Single Category			

STOT="Specific Target  
Organ Toxicity"



# Mixtures

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- ▶ HCS 2012 has a tiered approach to mixtures, with each health hazard class having a specific approach
  - Step 1: Use available test data on the mixture as a whole to classify the mixture based on the substance criteria
  - Step 2: Use bridging principles to extrapolate from other data (e.g., dilution principle)
  - Step 3: Estimate hazards based on known information regarding the ingredients of the mixture (cut-offs may be applied)
    - Except for chronic health hazards
- ▶ Chemical manufacturers and importers may rely on the information provided in ingredient SDSs unless they have a reason to know that it is inaccurate



# Appendix B: Physical Hazards

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- ▶ The physical hazard criteria in Appendix B are based on the UN Recommendations for the Transport of Dangerous Goods, and are already used by the Department of Transportation in hazardous materials regulations
- ▶ OSHA has adopted the GHS criteria for all physical hazards

# Appendix B: Physical Hazards

Hazard Class	Hazard Category						
	Unstable Explosives	Div 1.1	Div 1.2	Div 1.3	Div 1.4	Div 1.5	Div 1.6
Explosives	Unstable Explosives	Div 1.1	Div 1.2	Div 1.3	Div 1.4	Div 1.5	Div 1.6
Flammable Gases	1	2					
Flammable Aerosols	1	2					
Oxidizing Gases	1						
Gases under Pressure Compressed Gases Liquefied Gases Refrigerated Liquefied Gases Dissolved Gases	1						
Flammable Liquids	1	2	3	4			
Flammable Solids	1	2					
Self-Reactive Chemicals	Type A	Type B	Type C	Type D	Type E	Type F	Type G
Pyrophoric Liquids	1						
Pyrophoric Solid	1						
<i>Pyrophoric Gases</i>	Single category						
Self-heating Chemicals	1	2					
Chemicals, which in contact with water, emit flammable gases	1	2	3				
Oxidizing Liquids	1	2	3				
Oxidizing Solids	1	2	3				
Organic Peroxides	Type A	Type B	Type C	Type D	Type E	Type F	Type G
Corrosive to Metals	1						
<i>Combustible Dusts</i>	Single Category						

## (f) Labels and Other Forms of Warning

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- ▶ This paragraph has been extensively re-written to incorporate the GHS approach.
- ▶ This final rule sets forth detailed, required elements for labels.
- ▶ A new Appendix C, Allocation of Label Elements, has been provided to indicate the label requirements by hazard class and category

## (f) Labels and Other Forms of Warning

### ▶ Required Elements

- Product identifier

- Signal words

- Hazard statements

- Pictograms

- Precautionary statements

- Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Signal words, hazard statements, and pictograms have been harmonized, and assigned to each hazard class and category in the GHS

Once a chemical has been classified, the label preparer can obtain the relevant harmonized information from Appendix C

# Signal Word, Hazard Statement and Precautionary Statement

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- ▶ **Signal word** – indicates relative level of severity of hazard
  - “Danger” is used for the more severe hazards
  - “Warning” is used for less severe hazards
- ▶ **Hazard statement** – describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
  - For example: “Harmful if inhaled”
- ▶ **Precautionary statement** – that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure
  - For example: “Wear face protection”

# Pictogram

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“Pictogram” means a composition that may include 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. Eight pictograms are designated under this standard for application to a hazard category.

▶ Red borders required



▶ No blank pictograms



# Pictograms

## HCS Pictograms and Hazards

<p><b>Health Hazard</b></p>  <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	<p><b>Flame</b></p>  <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Emits Flammable Gas</li> <li>• Self Reactives</li> <li>• Organic Peroxides</li> </ul>	<p><b>Exclamation Mark</b></p>  <ul style="list-style-type: none"> <li>• Irritant (skin and eye)</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic Effects</li> <li>• Respiratory Tract Irritant</li> <li>• Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
<p><b>Gas Cylinder</b></p>  <ul style="list-style-type: none"> <li>• Gases under pressure</li> </ul>	<p><b>Corrosion</b></p>  <ul style="list-style-type: none"> <li>• Skin Corrosion/ Burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	<p><b>Exploding Bomb</b></p>  <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
<p><b>Flame Over Circle</b></p>  <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<p><b>Environment (Non-Mandatory)</b></p>  <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<p><b>Skull and Crossbones</b></p>  <ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>

# Workplace Labeling

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- ▶ OSHA is maintaining the approach used in the current HCS that allows employers to use workplace-specific labeling systems as long as they provide the required information
- ▶ However, such workplace label systems may need to be updated to make sure the information is consistent with the new classifications
- ▶ NFPA/HMIS Systems
  - (ratings systems v. classification)



# Other Requirements that Remain the Same in HCS 2012

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- ▶ OSHA is maintaining the current approach to allowing alternatives to labels on each stationary process container; and the exception for portable containers under the control of the person who filled them with the chemical
- ▶ Labels on incoming containers are not to be removed or defaced unless immediately replaced by another label
- ▶ Workplace labels are to be prominently displayed and in English, although other languages are permitted as well

# Label Example

Product identifier

Signal Word

Pictograms

Hazard Statements

Precautionary Statements

New style Label (GHS)

Xyz... Chemical



**Warning**

Flammable liquid and vapor

Harmful if swallowed

May cause damage to organs (liver)

May cause damage to organs through prolonged or repeated exposure (heart)

Suspected of damaging fertility

Keep away from heat, sparks, open flames and hot surfaces – No smoking. Do not breathe vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Store locked up in a well ventilated place. Keep cool. Dispose of contents and container in accordance with local, state and federal regulations.

**First aid:**

If swallowed: Call a doctor if you feel unwell. Rinse mouth.

If on skin or hair: Remove immediately all contaminated clothing. Rinse skin with water.

If exposed or if you feel unwell: Call a doctor.

**Fire:**

In case of fire: Use water spray, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) for extinction.

GHS Company, 123 Global Drive, Cincinnati, OH

Telephone (800) 555-8888

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

# Sample Label – Compliant?

HS85



Warning

Batch number: 85L6543

Harmful if swallowed. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Dispose of contents/container in accordance with local, state and federal regulations.

**First aid:** If swallowed: Call a doctor if you feel unwell. Rinse mouth.

GHS Example Company, 123 Global Circle, Anyville, NY  
130XX      Emergency Telephone (888) 888-8888

## (g) Safety Data Sheets

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- ▶ This paragraph has been extensively re-written to incorporate a uniform format.
- ▶ Several sections will not be mandatory since they address information outside OSHA's jurisdiction (Sections 12–15)
- ▶ A new Appendix D, Safety Data Sheets, provides the details of what is to be included in each section

# Safety Data Sheet Format

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1. Identification of the substance or mixture and of the supplier
2. Hazards identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection.
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. *Ecological information (non-mandatory)*
13. *Disposal considerations (non-mandatory)*
14. *Transport information (non-mandatory)*
15. *Regulatory information (non-mandatory)*
16. Other information, including date of preparation or last revision

# (j) Effective Dates

The standard became effective on May 25, 2012

<b>Effective Completion Date</b>	<b>Requirement(s)</b>	<b>Who</b>
December 1, 2013	Train employees on new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015* December 1, 2015	Compliance with all modified provisions of this final rule, except: The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label	Chemical manufacturers, importers, distributors and employers
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 to the effective completion dates noted above	May comply with either 29 CFR 1910.1200 (the final standard), or the current standard, or both	Chemical manufacturers, importers, distributors, and employers

# Other Affected Standards

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- ▶ Many other OSHA standards contain criteria related to defining hazards, as well as other provisions that rely on those criteria
- ▶ OSHA undertook a comprehensive review of its rules to identify what needed to be changed and modified all of those standards that it determined needed to be consistent with the HCS 2012
- ▶ OSHA maintained the scope of existing standards

# Other Affected Standards: Health

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- ▶ The substance-specific standards generally pre-date the HCS, and do not have a comprehensive approach to hazard communication
- ▶ The final rule references the HCS 2012 in each of these standards to ensure they have all the protections of the rule
- ▶ In addition, OSHA updated the provisions regarding what is to be communicated to workers to ensure the health effects are consistent with the GHS criteria
- ▶ Regulated area signs will need to be updated to reflect the new language.
- ▶ Timing – June 1, 2016



# Example: Regulated Area Signs in the Asbestos Standard

Standard	Substance	Original signs	Final Changes
1910.1001 1915.1001	Asbestos Regulated areas Where the use of respirators and protected clothing is required	<p style="text-align: center;">DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA</p>	<p style="text-align: center;">DANGER ASBESTOS MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS AUTHORIZED PERSONNEL ONLY WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA</p>

Signal Word

Product identifier

Hazard Statements

Precautionary Statements

# Other Affected Standards: Safety

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- ▶ OSHA updated a number of safety standards to be consistent with the criteria in the HCS 2012
- ▶ The manner in which this was done depended on the provisions of the standard being considered, and approaches varied
- ▶ In some cases, it was decided that changes could not be made at this time given the source of the standard or other constraints
- ▶ OSHA sought to minimize the impact on the scope or substantive provisions of the standards that were updated

# Example: Flammable Liquid Classification GHS

GHS			Flammable and Combustible Liquids Standard (29 CFR 1910.106)		
Category	Flashpoint °C (° F)	Boiling Point °C (° F)	Class	Flashpoint °C (° F)	Boiling Point °C (° F)
Flammable 1	< 23 (73.4)	≤ 35 (95)	Flammable Class IA	< 22.8 (73)	< 37.8 (100)
Flammable 2	< 23 (73.4)	> 35 (95)	Flammable Class IB	< 22.8 (73)	≥ 37.8 (100)
Flammable 3	≥ 23 (73.4) and ≤ 60 (140)		Flammable Class IC Combustible Class II	≥ 22.8 (73) and < 37.8 (100) ≥ 37.8 (100) and < 60 (140)	
Flammable 4	> 60 (140) and ≤ 93 (199.4)		Combustible Class IIIA	≥ 60 (140) and < 93.3 (200)	
None			Combustible Class IIIB	≥ 93.3 (200)	

# Example: Safety Standards

## Flammable Liquids 1910.106

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### ▶ HCS 1994

1910.106(b)(2)(iv)(g) Flame arresters or venting devices required in subdivision (f) of this subdivision may be omitted for Class IB and IC liquids where conditions are such that their use may, in case of obstruction, result in tank damage.

### ▶ HCS 2012

1910.106(b)(2)(iv)(g) Flame arresters or venting devices required in paragraph (B)(2)(iv)(f) of this section may be omitted for *Category 2 flammable liquids and Category 3 flammable liquids with a flashpoint below 100 ° F (37.8 ° C)* where conditions are such that their use may, in case of obstruction, result in tank damage.



# HAZARD COMMUNICATION

**GHS**

 The  
**Globally Harmonized System**  
 of Classification and Labeling of Chemicals

The standard that gave workers the right to know, now gives them the right to understand.

[Safety & Health Topics Page: Hazard Communication](#)

[Labeling](#) [Safety Data Sheets](#) [Pictograms](#) [Effective Dates](#)



Dr. David Michaels discusses the publication of the Final Rule for Hazard Communication  
[\[Video\]](#) [\[Statement\]](#)

"Exposure to hazardous chemicals is one of the most serious threats facing American workers today," said U.S. Secretary of Labor Hilda Solis. "Revising OSHA's Hazard Communication standard will improve the quality and consistency of hazard information, making it safer for workers to do their jobs and easier for employers to stay competitive."

The Hazard Communication Standard (HCS) is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This update to the Hazard Communication Standard (HCS) will provide a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets. Once implemented, the revised standard will improve the quality and consistency of hazard information in the workplace, making it safer for workers by providing easily understandable information on appropriate handling and safe use of hazardous chemicals. This update will also help reduce trade barriers and result in productivity improvements for American businesses that regularly handle, store, and use hazardous chemicals while providing cost savings for American businesses that

## Highlights:

- [HCS/HazCom 2012 Final Rule](#)
  - **Federal Register:** The Final Rule was filed on March 20th at the Office of the Federal Register and available for viewing on their Public Electronic Inspection Desk. The Federal Register published the final rule on March 26, 2012. The effective date of the final rule is 60 days after the date of publication.
    - [Federal Register](#) [PDF, 52 MB]
- HCS Comparison: HazCom 1994 and HazCom 2012
  - [Side-by-side](#)
  - [Redline Strikeout of the Regulatory Text](#)
- [HazCom 1994](#)
- **Press Release:** US Department of Labor's OSHA publishes final rule to update the Hazard Communication Standard (HCS)
- Guidance
  - [OSHA Briefs](#) [PDF 263]
  - [Fact Sheet](#)
  - [Quick Cards](#)
- [Downloadable Pictograms](#)
- [August 2012 OSHA/SCHC Alliance Webinar](#)
- [Downloadable Hazard Communications 2012 Presentation](#) [PPTX\*]
- [Question of the Month](#)

▪ *Downloadable Hazard Communications 2012 Presentation* [PPTX\*]

## Hazard Communication Webpage:

<http://www.osha.gov/dsg/hazcom/index.html>

## Hazard Communication Safety & Health Topics Webpage:

<http://www.osha.gov/dsg/hazcom/index2.html>










# Guidance and Outreach



## Hazard Communication Standard Pictogram

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 be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

### HCS Pictograms and Hazards

Health Hazard	Flame	Exclamation Mark
 <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	 <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Emits Flammable Gas</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>	 <ul style="list-style-type: none"> <li>• Irritant (skin and eye)</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic Effects</li> <li>• Respiratory Tract Irritant</li> <li>• Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
Gas Cylinder	Corrosion	Exploding Bomb
 <ul style="list-style-type: none"> <li>• Gases Under Pressure</li> </ul>	 <ul style="list-style-type: none"> <li>• Skin Corrosion/ Burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	 <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
Flame Over Circle	Environment (Non-Mandatory)	Skull and Crossbones
 <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	 <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	 <ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>



## Hazard Communication Safety Data



## Hazard Communication Safety Data Sheets

The Hazard Communication Standard requires chemical manufacturers, distributors, and other parties to provide Safety Data Sheets (SDS) for all hazardous chemicals. The SDSs are the Material Safety Data Sheets (MSDS) that you have used in the past. As of June 1, 2015, the HCS will require new SDS format, and include the section numbering and associated information under

**Section 1, Identification** includes the manufacturer or distributor name, product number; emergency phone number; and restrictions on use.

**Section 2, Hazard(s) identification** regarding the chemical; required labels and pictograms.

**Section 3, Composition/information on ingredients** includes information on chemical formula and purity claims.

**Section 4, First-aid measures** including symptoms/effects, acute, delayed; required treatment methods.

**Section 5, Fire-fighting measures** including extinguishing techniques, equipment; chemical incompatibilities; and special fire-fighting procedures; protective equipment; containment and cleanup.

**Section 6, Accidental release measures** including containment and cleanup.

**Section 7, Handling and storage** including handling and storage, including special precautions.

**Section 8, Exposure controls/personal protection** including occupational exposure limits (OELs), 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 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.

\*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.

See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.



## Hazard Communication Standard Labels

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided on the label as needed.

For more information:  Occupational Safety and Health Administration (800) 321-OSHA (6742) [www.osha.gov](http://www.osha.gov)

### SAMPLE LABEL

CODE \_\_\_\_\_ Product identifier  
Product Name \_\_\_\_\_

Supplier Identification  
Company Name \_\_\_\_\_  
Street Address \_\_\_\_\_  
City, State \_\_\_\_\_  
Postal Code, Country \_\_\_\_\_  
Emergency Phone Number \_\_\_\_\_



Keep container tightly closed. Store in a cool, well-ventilated place that is locked.  
Keep away from heat/sparks/open flame. No smoking.  
Do not use non-sparking tools.  
Use explosion-proof electrical equipment.  
Take precautionary measures against static discharge.  
Do not use standard 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 to all Poison Centers:  
From skin: flush with water. Take off immediately any contaminated clothing. Rinse with water.

Highly flammable liquid and vapor. May cause liver and kidney damage. Hazard Statements

Precautionary Statements

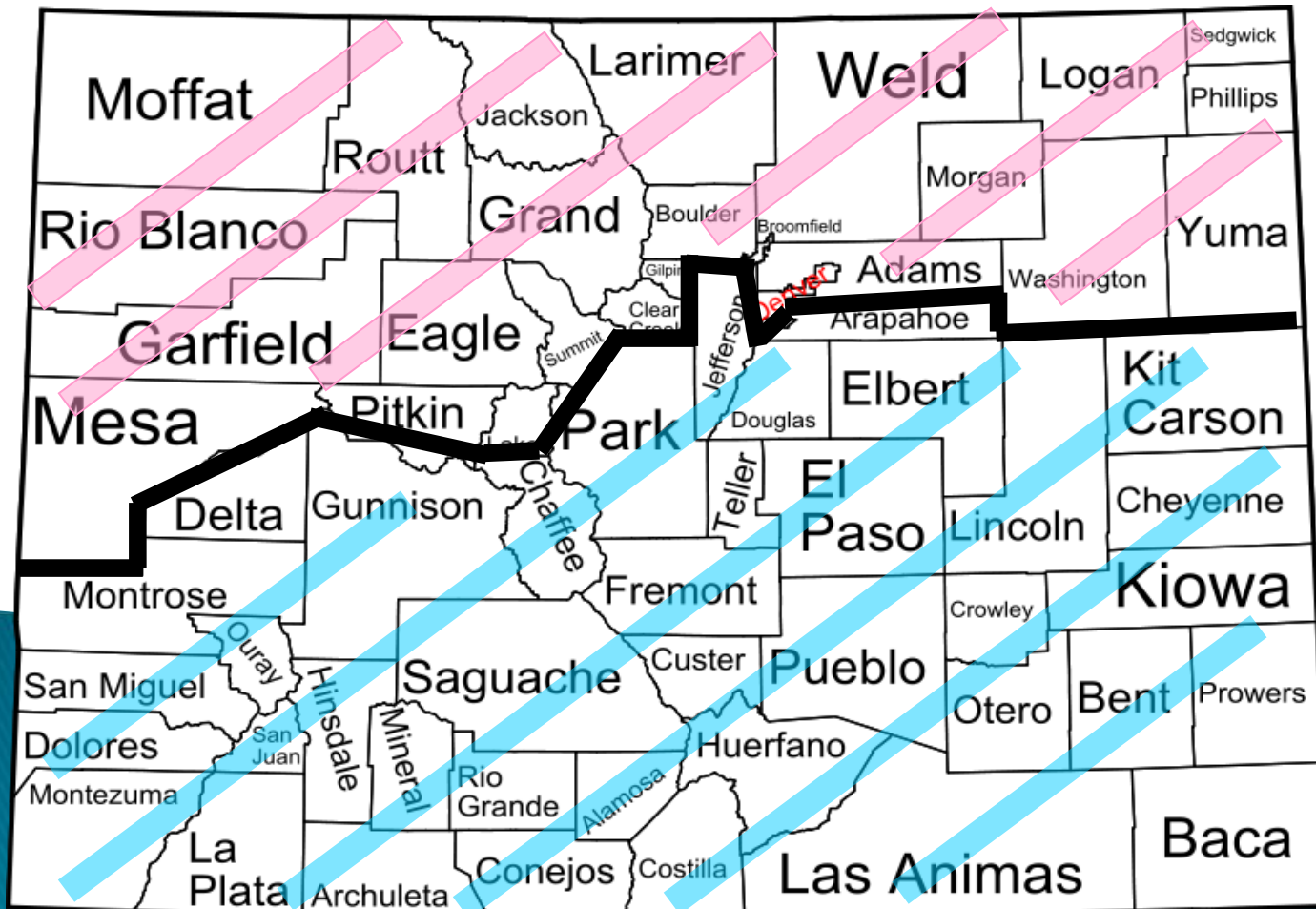
Supplemental Information

Directions for Use

Net Weight \_\_\_\_\_ Lot Number \_\_\_\_\_  
Gross Weight \_\_\_\_\_ Pallet Date \_\_\_\_\_  
Expiration Date \_\_\_\_\_



# Colorado Compliance Assistance Specialists



**Denver Office**  
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**Megan Meagher (x105)**  
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**George Flynn (x132)**

A hand holding a megaphone is shown in a high-contrast, black and white style. The megaphone is positioned on the left side of the frame, pointing towards the right. A white speech bubble originates from the megaphone's opening, containing the text "It's your turn!!!". The background is a solid red color with a subtle pattern of overlapping, semi-transparent red triangles. The overall composition is simple and direct, emphasizing the message of the speech bubble.

***It's your turn!!!***