

# Slideshow

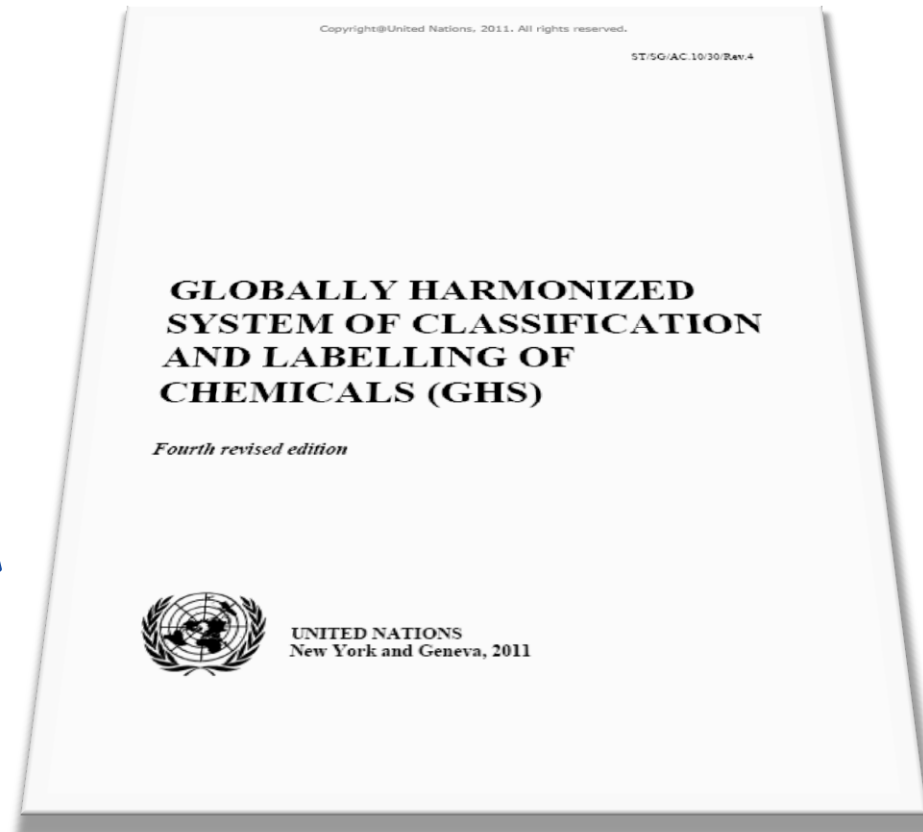
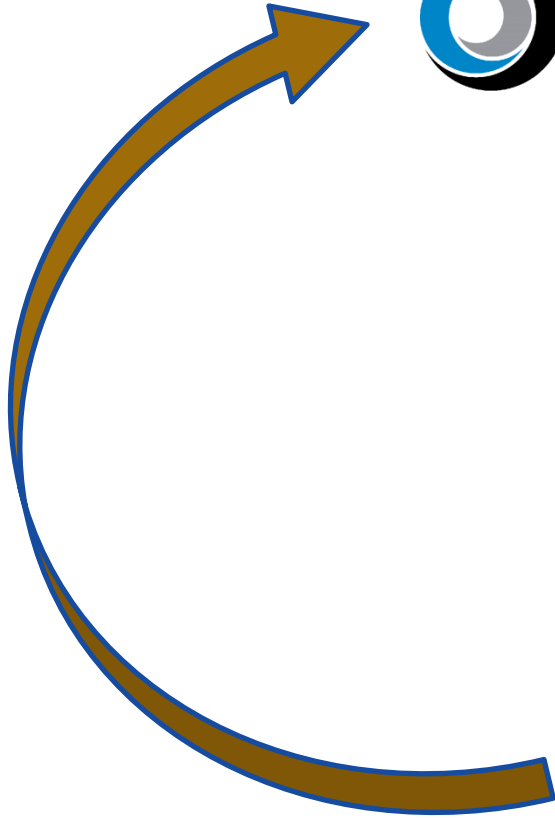
# GHS

The Globally Harmonized System of Classification and Labeling of Chemicals




# What is GHS?

- **Part of the Hazard Communication Standard**
- **Consistent System of Classification and Labeling of Chemicals**
- **Created by the United Nations**



**FEDERAL OSHA's phase-in dates under the revised Hazard Communication Standard (HCS):**

<b>Effective Completion Date</b>	<b>Requirement(s)</b>	<b>Who</b>
December 1, 2013 	Train employees on the 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

**FOR MORE INFORMATION  
PLEASE VISIT FEDERAL OSHA's WEBSITE:**

[www.osha.gov/dsg/hazcom/index.html](http://www.osha.gov/dsg/hazcom/index.html)

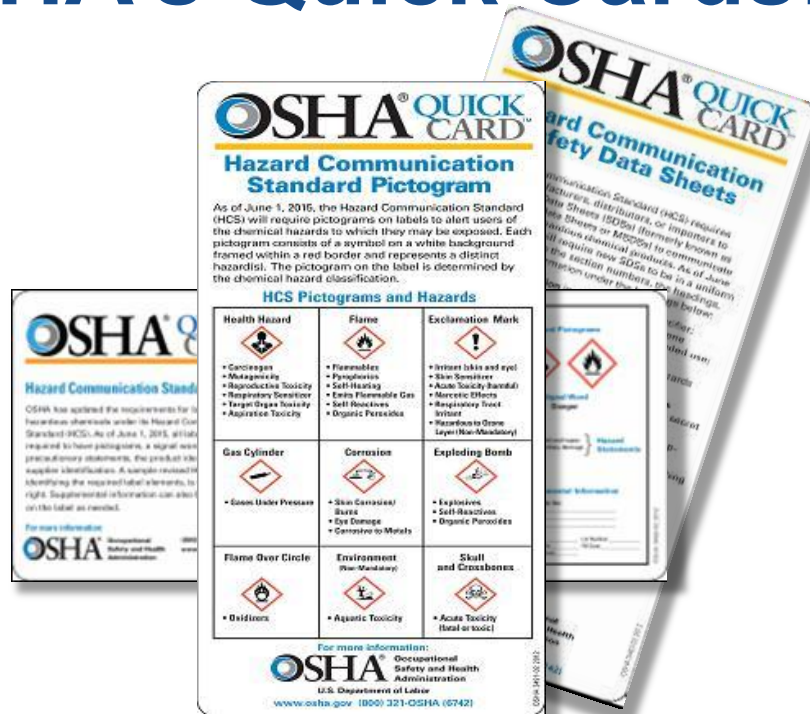


## **Changes of the Standard:**

- **Labels**
- **Pictograms**
- **Safety Data Sheets**
- **Hazard Classification vs. Identification**



# One way to get information are OSHA's Quick Cards:



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

# LABELS



**SAMPLE LABEL**

<p>CODE _____ Product Name _____</p>	<b>Product Identifier</b>	
<p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	<b>Supplier Identification</b>	

Keep container tightly closed. Store in a 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 measures 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 (CO<sub>2</sub>) fire extinguisher to extinguish.

**First Aid**  
If exposed call Poison Center.  
If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.

**Hazard Pictograms**

**Signal Word**  
**Danger**

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

**Hazard Statements**

**Precautionary Statements**

**Supplemental Information**

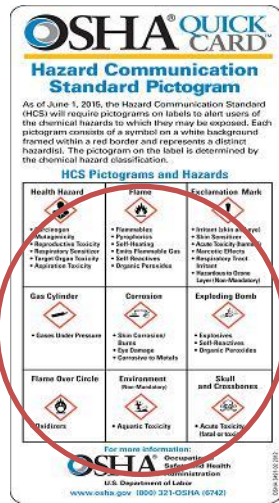
**Directions for Use**










\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fill weight: \_\_\_\_\_ Lot Number: \_\_\_\_\_  
Gross weight: \_\_\_\_\_ Fill Date: \_\_\_\_\_  
Expiration Date: \_\_\_\_\_



# PICTOGRAMS



<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>

# SAFETY DATA SHEETS

- 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



# SAFETY DATA SHEETS



## Section 1, Identification

## Section 2, Hazard(s) identification

# SAFETY DATA SHEETS



**Section 3, Composition/information on ingredients**

**Section 4, First-aid measures**

**Section 5, Fire-fighting measures**

# SAFETY DATA SHEETS



**Section 6, Accidental release measures**

**Section 7, Handling and storage**

**Section 8, Exposure controls/personal protection**

# SAFETY DATA SHEETS



Section 9, Physical and chemical properties

Section 10, Stability and reactivity

Section 11, Toxicological information

# SAFETY DATA SHEETS



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.

**OSHA will not be enforcing Sections 12 through 15**

**Hazard Identification**

**vs.**

**Hazard Classification**



# Hazard Identification - MSDS

L'Oreal USA Products, Inc. PRODUCT: 0-25 Volume Developer  
≥ 8% Hydrogen Peroxide (June 22, 2009)

**May cause skin and severe eye irritation.  
Harmful if swallowed.**

**May cause severe irritation of gastric mucous  
membranes if swallowed.**

**Prolonged contact with skin may whiten skin and  
cause burns.**

**Decomposition yields oxygen and may support  
combustion.**

# Hazard Classification - SDS

L'Oreal USA Products, Inc. PRODUCT: 0-25 Volume Developer  
≥ 8% Hydrogen Peroxide (July 17, 2012)



Serious Eye  
Damage Category  
1

Causes  
serious eye  
damage

- Wear eye protection/face protection.
- Chemical resistant goggles or a face shield is appropriate for the manufacturing environment. Wash hands and face thoroughly after handling.



Oxidizing Liquid –  
Category 3










May  
intensify  
fire, oxidizer

- Keep away from heat.
- Storage away from combustibles (e.g. paper), organics, and metals (e.g. Iron).
- Take precaution to avoid mixing with combustible and organic materials.
- Wear protective gloves and eye/face protection when in the manufacturing environment.

**Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.**

## For more information:

[http://orosha.org/subjects/hazard\\_communication.html](http://orosha.org/subjects/hazard_communication.html)

<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</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>
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# Handouts

# GHS

The Globally Harmonized  
System of Classification  
and Labeling of Chemicals



# What is GHS?

- Part of the Hazard Communication Standard
- Consistent System of Classification and Labeling of Chemicals
- Created by the United Nations


GHS is a part of the Right to Know standard also known as Hazard Communication or Haz-Comm. It is a system of classifying and labeling chemicals that was created by the UN in 1992 during the United Nations Conference on Environment and Development as part of Agenda 21. The international standard was created to ensure import and export of chemicals was consistent in all member nations and to assist developing nations in creating standards.

Federal OSHA says, “Chemicals directly or indirectly affect our lives and are essential to our food, our health, and our lifestyle. The widespread use of chemicals has resulted in the development of sector-specific regulations (transport, production, workplace, agriculture, trade, and consumer products). Having readily available information on the hazardous properties of chemicals, and recommended control measures, allows the production, transport, use and disposal of chemicals to be managed safely. Thus, human health and the environment are protected.

The sound management of chemicals should include systems through which chemical hazards are identified and communicated to all who are potentially exposed. These groups include workers, consumers, emergency responders and the public. It is important to know what chemicals are present and/or used, their hazards to human health and the environment, and the means to control them. A number of classification and labeling systems, each addressing specific use patterns and groups of chemicals, exist at the national, regional and international levels”



All state OSHA plans also adopted the standard in order to maintain the global system. Oregon adopted it on September 25, 2012 and made the rules effective on the same date.

FEDERAL OSHA's phase-in dates under the revised Hazard Communication Standard (HCS):		
Effective Completion Date	Requirement(s)	Who
December 1, 2013 	Train employees on the 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

**FOR MORE INFORMATION  
PLEASE VISIT FEDERAL OSHA's WEBSITE:**  
[www.osha.gov/dsg/hazcom/index.html](http://www.osha.gov/dsg/hazcom/index.html)

There are four important implementation dates to be aware of. December 1, 2013; June 1, 2015; December 1, 2015; and June 1, 2016.

The first implementation date of December 1, 2013 relates to the requirement for employers to have a discussion with their employees about the changes in the haz comm standard. The employer must provide training to their employees on SDS and the new labels.





### **Changes of the Standard:**

- **Labels**
- **Pictograms**
- **Safety Data Sheets**
- **Hazard Classification vs. Identification**

The changes will center on these areas of hazard communication. Labels, Pictograms, Safety Data Sheets and the way hazards are looked at on the Safety Data Sheets.



## One way to get information are OSHA's Quick Cards:




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

A simple way to do this training is with the Federal OSHA quick cards. You can obtain them by visiting [www.osha.gov](http://www.osha.gov) and selecting hazard communication from the A-Z topic listing.

# LABELS

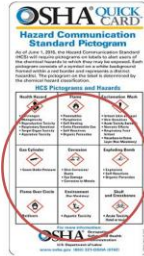


**SAMPLE LABEL**

CODE _____ Product Name _____	} <b>Product Identifier</b>	<b>Hazard Pictograms</b> 
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. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures 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.  <b>In Case of Fire:</b> use dry chemical (BC) or Carbon Dioxide (CO <sub>2</sub> ) fire extinguisher to extinguish.  <b>First Aid</b> If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.	} <b>Precautionary Statements</b>	<b>Signal Word</b> <b>Danger</b>
		Highly flammable liquid and vapor. May cause liver and kidney damage.
<b>Supplemental Information</b> <b>Directions for Use</b> _____ _____ _____  Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____		

OSHA has updated the requirements for labeling of hazardous chemical 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.

# PICTOGRAMS



<b>Health Hazard</b>  <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>	<b>Flame</b>  <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>	<b>Exclamation Mark</b>  <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>
<b>Gas Cylinder</b>  <ul style="list-style-type: none"> <li>• Gases Under Pressure</li> </ul>	<b>Corrosion</b>  <ul style="list-style-type: none"> <li>• Skin Corrosion/ Burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	<b>Exploding Bomb</b>  <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
<b>Flame Over Circle</b>  <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<b>Environment (Non-Mandatory)</b>  <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<b>Skull and Crossbones</b>  <ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>

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 white background frames within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

# SAFETY DATA SHEETS



- Section 1 Identification
- Section 2 Hazard(s) identification
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- 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

New data sheets will now contain 16 sections. The sections will follow this outline.

# 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 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; recommended use; restriction on use.

## Section 2, Hazard(s) identification

includes all hazards regarding the chemical; required label elements.

# SAFETY DATA SHEETS



**Section 3, Composition/information on ingredients**

**Section 4, First-aid measures**

**Section 5, Fire-fighting measures**

## 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.

# SAFETY DATA SHEETS



**Section 6, Accidental release measures**

**Section 7, Handling and storage**

**Section 8, Exposure controls/personal protection**

## 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).



# SAFETY DATA SHEETS



Section 9, Physical and chemical properties

Section 10, Stability and reactivity

Section 11, Toxicological information

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.

# SAFETY DATA SHEETS



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.

**OSHA will not be enforcing Sections 12 through 15**

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 Identification**

**vs.**

**Hazard Classification**

The chemical manufacturers will be providing this information

## Hazard Identification - MSDS

L'Oreal USA Products, Inc. PRODUCT: 0-25 Volume Developer  
≥ 8% Hydrogen Peroxide (June 22, 2009)

**May cause skin and severe eye irritation.  
Harmful if swallowed.**

**May cause severe irritation of gastric mucous  
membranes if swallowed.**

**Prolonged contact with skin may whiten skin and  
cause burns.**

**Decomposition yields oxygen and may support  
combustion.**

Both current Hazard Communication Standard (HCS) and the revised HCS require an evaluation of chemical hazards. Under current HCS the hazard determination provisions have definitions of hazard and the evaluator determines whether or not the data on a chemical meet those definitions. (Performance based). The current HCS does not include categories for most of the health hazards covered, so this new approach provides additional information that can be related to the appropriate response to address the hazard.

# Hazard Classification - SDS

L'Oreal USA Products, Inc. PRODUCT: 0-25 Volume Developer  
 ≥ 8% Hydrogen Peroxide (July 17, 2012)



Classification	Hazard Statement	Prevention Statements
Serious Eye Damage Category 1	Causes serious eye damage	<ul style="list-style-type: none"> <li>Wear eye protection/face protection.</li> <li>Chemical resistant goggles or a face shield is appropriate for the manufacturing environment. Wash hands and face thoroughly after handling.</li> </ul>
Oxidizing Liquid – Category 3	May intensify fire, oxidizer	<ul style="list-style-type: none"> <li>Keep away from heat.</li> <li>Storage away from combustibles (e.g. paper), organics, and metals (e.g. Iron).</li> <li>Take precaution to avoid mixing with combustible and organic materials.</li> <li>Wear protective gloves and ye/face protection when in the manufacturing environment.</li> </ul>












Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.

The revised HCS has specific criteria for each health and physical hazard, along with detailed instructions for hazard evaluation and determinations as to whether mixtures or substances are covered. (Criteria based). The revised HCS 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.

OSHA has included the general provisions for hazard classification in paragraph (d) of the revised rule, and added extensive appendixes (Appendixes A and B) that address the criteria for each health or physical effect.

For more information:

[http://orosh.org/subjects/hazard\\_communication.html](http://orosh.org/subjects/hazard_communication.html)

<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</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>

For more information:

[http://orosh.org/subjects/hazard\\_communication.html](http://orosh.org/subjects/hazard_communication.html)

# Reference Material

**Hazard Communication & the Globally Harmonized System**

OAR 437  
Division 2/Z, 3/D,  
and 4/Z



*Hazard Communication & the  
Globally Harmonized System*

**Highlights of the current rule requirements  
and what's changing in 2013-2016**

Following federal OSHA's lead, Oregon OSHA revised its Hazard Communication Standard (HCS) for general industry to align with the [Globally Harmonized System \(GHS\) of classification and labeling of chemicals](#).

The key changes in the Hazard Communication Standard affect both chemical suppliers (manufacturers, importers, distributors) and employers whose employees may be exposed to hazardous chemicals. Although the standard has been adopted, there are multiple delayed effective dates.

**Effective dates:**

Effective completion Date	Requirement	Who
Dec. 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015	Compliance with all modified provisions of this final rule.	Chemical manufacturers, importers, distributors, and employers
Dec. 1, 2015	Distributor must not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label.	
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

**Hazard classification:**

The classification of chemical hazards in the GHS is different from the performance-oriented approach allowed in the previous Hazard Communication Standard. The new HCS requires suppliers to use the GHS-specific criteria for each type of health and physical hazard. Detailed instructions for evaluation, classification, categorization of the hazards and use of label elements are provided in new Appendices A, B, C, D, and F to 1910.1200.

**Website:**  
[www.orosha.org](http://www.orosha.org)

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Salem, OR 97301-3882

Phone: 503-378-3272  
Toll-free: 800-922-2689  
Fax: 503-947-7461





### Written hazard communication program:

There were no significant changes to the requirements for a written hazard communication program. However, the format for safety data sheets (previously known as material safety data sheets) and the elements required on product labels, which provide the main information about workplace chemical hazards covered in the written program, have changed substantially.

- **Safety Data Sheets:** *Safety data sheets (SDS)* will replace *material safety data sheets (MSDS)*. Suppliers must prepare safety data sheets for their products that follow a standardized 16-section format in conveying information about a hazardous chemical's health effects and physical and chemical characteristics. More on the [SDS/MSDS comparison](#).
- **Labels:** Suppliers must develop new product labels that include signal words, pictograms, hazard statements, and precautionary statements for chemicals based on their hazard classification and category. Employers must ensure that employees understand the meaning of each of these elements on the new labels. More on [labels](#).

It remains the employer's responsibility to develop and implement a written hazard communication program, which includes a list of hazardous chemicals known to be present, container labels, safety data sheets, and employee information and training. Safety data sheets must be immediately available to employees. See Oregon OSHA's [sample written program](#).

**Information and training:** Employers must continue to provide employees with effective information and training on hazardous chemicals they use or are exposed to in the workplace at the time of their initial assignment and whenever a new hazard is introduced. New requirements include training on the meaning of the new label elements, the new safety data sheet format, and any newly-identified physical or health hazards. Employers must also update their hazard communication programs and workplace labeling as new hazard information becomes available.

### Oregon's Hazard Communication Standards:

- Hazard Communication, general industry – Division 2/Z, 1910.1200.
- Hazard Communication, construction – Division 3/D, 1926.59 (refers back to 1910.1200.)
- Hazard Communication, agriculture – Division 4/Z, 437-004-9800 will be revised in a separate rulemaking.

### Other affected rules:

Oregon OSHA also modified parts of other general industry standards, including flammable liquids; spray finishing; hazardous waste operations and emergency response; process safety management; pipe labeling; and several substance-specific health standards, to ensure consistency with the modified Hazard Communication Standard requirements. [More information is available](#).

### Useful Resources:

- [Federal OSHA's Hazard Communication page](#) (Includes links to training resources about SDSs, pictograms, and other label elements.)
- [Side-by-side changes in the federal rule](#)
- [Oregon OSHA's Hazard Communication topic page](#)

OAR 437  
Division 2/Z,  
3/D, and 4/Z

Hazard Communication & the Globally Harmonized System

# HAZARD COMMUNICATION

UPDATE # 2 - OVERVIEW



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FEDERAL OSHA is revising the Hazard Communication Standard to align it with the United Nations' **Globally Harmonized System (GHS)** of Classification and Labeling of Chemicals.

David Michaels, Assistant Secretary of Labor for Occupational Safety and Health explained the update by saying that the **OSHA's 1983 Hazard Communication Standard gave workers the right to know. This update will give them the right to understand, as well.**

OSHA's standard will classify chemicals according to their health and physical hazards, and establish **consistent labels** and **safety data sheets** for all chemicals made in the United States and imported from abroad. **See other side for examples.**

The rule update will benefit workers by reducing confusion about chemical hazards in the workplace, facilitating safety training and improving understanding of hazards, especially for low literacy workers. **See other side for dates.**

During the transition period to the effective completion dates noted in the standard, chemical manufacturers, importers, distributors and employers may comply with either 29 Code of Federal Regulations 1910.1200 (the final standard), the current standard or both. **OREGON OSHA adopted this rule September 25, 2012**

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ALL THE FEDERAL OSHA CHANGES TO THIS RULE ARE NOT IN THIS UPDATE. FOR MORE INFORMATION, PLEASE GO TO THESE LINKS:

Final rule:

[http://www.orosha.org/pdf/notices/adopted2012/ao52012\\_div23\\_text\\_chngs.pdf](http://www.orosha.org/pdf/notices/adopted2012/ao52012_div23_text_chngs.pdf)

Guidance materials such as Q and A's, OSHA fact sheet and Quick Cards:

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

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FOR MORE INFORMATION ABOUT THIS RULE IN OREGON, CALL OREGON OSHA TECHNICAL SECTION

503-378-3272 OR (800) 922-2689

## SAFETY DATA SHEET (SDS)

1. Identification
2. Hazard(s) 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
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information, including date of preparation or last revision

## PICTOGRAMS

<b>Health Hazard</b> 	<b>Flame</b> 	<b>Exclamation Mark</b> 
<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>
<b>Gas Cylinder</b> 	<b>Corrosion</b> 	<b>Exploding Bomb</b> 
<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>
<b>Flame over Circle</b> 	<b>Environment (Non Mandatory)</b> 	<b>Skull and Crossbones</b> 
<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>

## IMPLEMENTATION DATES

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the 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