

# Hazard Communications

## “Your Right to Know and Your Right to Understand”

GHS Training

Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

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# GHS Training

- Overview
  - Chemical Labeling
  - Safety Data Sheets (SDS)
  - Pictograms and Hazard Statements
  - Summary



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# Objective for GHS

Develop a harmonized hazard communication system, including:

- Chemical Labeling
  - Comprised of six specific elements
- Safety Data Sheets (SDSs)
  - Standardized
  - 16 section format



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# Responsibilities

- Chemical manufacturers and importers:
  - Required to evaluate hazards of chemicals they produce or import
  - Prepare labels and safety data sheets to convey the hazard downstream to employers
- Employers:
  - Provide labels and safety data sheets
  - Train employees on hazardous chemicals
  - Provide a hazard communication program

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# Hazard Communications Chemical Labeling Required Elements

- Information required on labels:
  - Product identifier
  - Signal words
  - Pictograms
  - Hazard statements
  - Precautionary statements
  - Name, address and phone number of the chemical manufacturer, distributor or importer



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# Hazard Communication Chemical Labeling Product Identifier

**EPICHLOROHYDRIN** **1**

UN No. 2023  
CAS No. 106-89-8


**2 DANGER**

**4** Flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause cancer.

**5** Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection.

Fill Weight: 18.52 lbs.      Lot Number: A0323111323  
Gross Weight: 20 lbs      Fill Date: 1/15/2012  
Expiration Date: 1/15/2018

**6** JACKSON CHEMICAL COMPANY - City of Industry, Los Angeles, California, USA (800)-444-456-8989



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# Hazard Communication Chemical Labeling Signal Words

Definition: Word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label.

“**Danger**” – used for more severe hazard

“**Warning**” – used for less severe hazard

EPICHLOROHYDRIN <sup>1</sup>

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# Hazard Communication Chemical Labeling Pictograms

Definition: Graphical composition that includes a symbol and other graphic elements, such as a border, background pattern or color that is intended to convey specific information.

## Characteristics:

- Shape: Square set at a point
- Colors:
  - Symbol: Black
  - Background: White
  - Border: Red

<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>

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# Hazard Communication Chemical Labeling Hazard Statement

Definition: A statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including where appropriate and the degree of hazard.

Examples of hazard statements are:

- “Highly flammable liquid and vapor”
- “Harmful if swallowed”
- “Harmful if inhaled”

**Hazard Pictograms**



**Signal Word**  
**Danger**

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

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# Hazard Communication Chemical Labeling Precautionary Statements

Definition: A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage/handling.

## Four types:

- Prevention
- Response
- Storage
- Disposal

### 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 (CO<sub>2</sub>) fire extinguisher to extinguish.

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# Hazard Communication Chemical Labeling Suppliers Identification

Definition: The name or number used for a hazardous chemical on a label or in the SDS. Provides a unique means by which the user can identify the chemical.

## Product identifier:

- Proper shipping name
- Code

## Supplier identification:

- Company name
- Address
- Emergency phone number

Product Identifier	
CODE _____	
Product Name _____	
Supplier Identification	
Company Name _____	
Street Address _____	
City _____	State _____
Postal Code _____	Country _____
Emergency Phone Number _____	


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# Hazard Communication Chemical Labeling

**SAMPLE LABEL**

<p><b>CODE</b> _____ <b>Product Name</b> _____</p>	}	<p><b>Product Identifier</b></p>	<p><b>Hazard Pictograms</b></p> 
<p><b>Company Name</b> _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	}	<p><b>Supplier Identification</b></p>	<p><b>Signal Word</b> <b>Danger</b></p>
<p>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.</p> <p><b>In Case of Fire:</b> use dry chemical (BC) or Carbon Dioxide (CO<sub>2</sub>) fire extinguisher to extinguish.</p> <p><b>First Aid</b> If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>			<p><b>Hazard Statements</b></p> <p><b>Highly flammable liquid and vapor.</b> <b>May cause liver and kidney damage.</b></p>
			<p><b>Precautionary Statements</b></p>

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# Safety Data Sheets (SDSs)

Similar to MSDSs, the SDS provides information on:

- 16 Section Format
- Chemical characteristics
- Safety and health hazards
- Precautions
- Disposal information
- Transport information



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# Safety Data Sheets: Your Rights

- Your employer must have an SDS for every hazardous chemical you use as part of your job
- Your employer shall ensure that they are readily accessible to all employees
- Electronic access and other alternatives are permitted as long as no barriers impedes the employee's access

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# Safety Data Sheets

16 Section Format



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# Hazard Communications Safety Data Sheets

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 (non-mandatory)
13. Disposal consideration (non-mandatory)
14. Transport information (non-mandatory)
15. Regulatory information (non-mandatory)
16. Other Information

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# New GHS Pictograms



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## 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

<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>
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# GHS OSHA Phases

## Effective Dates

The table below summarizes the phase-in dates required 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

- Remember that this is the only the first phase

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# Review

Items covered are:

- New Mexico Mutual Website
- Chemical Labeling
- Safety Data Sheets (SDS)
- Pictograms and Hazard Statements
- Questions?



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# Risk & Safety Management Contact

If you have any questions or would like Risk and Safety assistance with your policy, please contact us:

Albuquerque area: (505) 345-7260

Toll Free: (800) 788-8851

P.O. Box 27825

Albuquerque, NM 87125

You can also email us at [NMMSafetyAdvisor@NewMexicoMutual.com](mailto:NMMSafetyAdvisor@NewMexicoMutual.com)



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