

***HAZARD COMMUNICATION  
TRAINING***

***2013 UPDATE***

# **HAZARD COMMUNICATION BACKGROUND**

# THE HAZARD COMMUNICATION STANDARD (HCS)

In 1983 the Occupational Safety and Health Administration (OSHA) enacted the Hazard Communication Standard (HCS) (29 CFR 1910.1200)

First major new standard since the original OSHA rules were published in 1971.

The intent, to give employees the “**Right to Know**” what chemical hazards they are exposed to in the workplace.

**Required:** chemicals produced or imported be evaluated and the information concerning their hazards be transmitted to employees via employers by;

- Container labeling and other forms of warning,**
- Material safety data sheets for chemicals,**
- Training to be available and understandable to workers.**

# THE HAZARD COMMUNICATION STANDARD REVISION

In 2012, OSHA reissued the HCS to integrate components of the **Globally Harmonized System of Classification and Labelling of Chemicals (GHS)** into the **OSHA Hazard Communication Standard** and includes the following elements:

**Hazard classification:** Provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.

**Labels:** includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.

**Safety Data Sheets:** Will now have a specified 16-section format.

**Information and training:** required to train workers by December 1, 2013 on the new labels elements and safety data sheets format

The changes now give employees the “**Right to Understand**” what chemical hazards they are exposed to in the workplace.

# GHS

The GHS is an acronym for The Globally Harmonized System of Classification and Labelling of Chemicals. It is a logical and comprehensive approach to:


- Defining health, physical and environmental hazards,
- Creating hazard classification processes,
- Communicating hazard information.



GHS Document ("Purple Book")

# DEADLINES / MILESTONES


December 1, 2013

 Employers must train employees on the new label elements and safety data sheet (SDS) format.


June 1, 2015

 Chemical manufacturers, importers, distributors must complete hazard classification and implement GHS compliant labels and safety data sheets.

December 1, 2015

 The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label.

June 1, 2016

 Employers must update workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.

# HAZARD CLASSIFICATION

# WHAT IS CLASSIFICATION?

Classification is the starting point for hazard communication. It involves the identification of the hazard(s) of a chemical or mixture by assigning a category of hazard/danger using defined criteria.

- Hazards include;
  - physical,
  - health and,
  - environmental.
  
- The data used for classification may be obtained from tests, literature, and practical experience.



# **LABELING**

# LABEL ELEMENTS

**The revised standardized label elements include:**

**Symbols (hazard pictograms):** Convey health, physical and environmental hazard information, assigned to a hazard class and category.

**Signal Words:** "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard, assigned to a hazard class and category.

**Hazard Statements:** Standard phrases assigned to a hazard class and category that describe the nature of the hazard.

# NEW LABEL FORMAT

## SAMPLE LABEL

### 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 (CO<sub>2</sub>) 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: \_\_\_\_\_

# PRODUCT IDENTIFIER

**Product identifier:** How the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number.

The manufacturer, importer or distributor can decide the appropriate product identifier.

The same product identifier must be both on the label and in Section I of the SDS (Identification).

# SIGNAL WORD

The signal word is used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label.










**“Danger”** is used for the more severe hazards

**“Warning”** is used for the less severe hazards.

There will only be **one signal word on the label** no matter how many hazards a chemical may have.

# PICTOGRAM

OSHA's (revised) labels contain one or more pictograms which convey information about chemical hazards in the work place.

<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</b> (Non-Mandatory)</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>

**While the GHS uses a total of nine pictograms, OSHA will only enforce the use of eight. The environmental pictogram is not mandatory but may be used to provide additional information.**

# HAZARD STATEMENT

Hazard statements are standardized and assigned phrases that describe the hazard(s) as determined by hazard classification. An appropriate statement for each hazard should be included on the label for products possessing more than one hazard.

- Hazard statements may be combined where appropriate to reduce redundancies and improve readability.
- All of the applicable hazard statements must appear on the label.
- For example:
  - “Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin.”

# OTHER REQUIRED LABEL ELEMENTS INCLUDE

- ❑ **Precautionary Statements and Pictograms:**

Measures to minimize or prevent adverse effects.

- ❑ **Supplier identification:**

The name, address and telephone number should be provided on the label.

- ❑ **Supplemental information:**

Non-harmonized information.



# **SAFETY DATA SHEETS**

## **“SDS”**

# WHAT IS THE SAFETY DATA SHEET (SDS)?

The Safety Data Sheet (SDS) (previously known as Material Safety Data Sheet (MSDS)) has 16-section headings. *Sections 12-15 that require information outside OSHA's jurisdiction.*

- Employers and workers use the SDS as sources of information about hazards and to obtain advice on safety precautions.
- The SDS is product related

# SDS OUTLINE

The information in the **SDS** should be presented using the following **16** sections, in the order given below.

- 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.**

## SECTION 8



# EXPOSURE CONTROLS / PERSONAL PROTECTION

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:

- OSHA Permissible Exposure Limits (PELs),**
- Appropriate engineering controls** (e.g., use local exhaust ventilation).
- Recommendations for personal protective measures** such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin or respiratory protection).
- Any special requirements.**

# FINAL THOUGHTS

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***The information on the label can be used to ensure proper storage of hazardous chemicals.***

The label might be used to quickly locate information on first aid when needed by employees or emergency personnel.

If a chemical has multiple hazards, different pictograms are used to identify the various hazards.

When there are similar precautionary statements, the one providing the most protective information will be included on the label.

# QUIZ

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