

## **GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)**

### **What is Globally Harmonized System (GHS)**

- International Approach to
  - ✓ Hazard communication
  - ✓ Agreed upon criteria for classification of chemical hazards
  - ✓ Standardized approach to manufacturer **label elements**
  - ✓ Standardized approach to **safety data sheets (SDS)**

### **Why Globally Harmonized System (GHS)**

- Improve the safety and health of employees through more effective communication of chemical hazards
- Enhance both employer and worker comprehension of the hazards, which will help to ensure appropriate handling and safe use of workplace chemicals

### **Hazard Communication Standard (HCS) Labels**

- As of June 1, 2015, all Labels are required to have:
  - ✓ Hazard Pictograms
  - ✓ Signal Words like:
    - Danger
    - Warning
  - ✓ Hazard Statements
  - ✓ Precautionary Statements like:
    - In Case of Fire
    - First Aid
  - ✓ Product Identifier
  - ✓ Supplier Identification
  - ✓ Supplemental Information

### **Hazard Pictograms**

- The Hazard Communication Standard (HCS) will require Pictograms on all labels
  - ✓ To alert employees of the health, physical, and environmental 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

## GHS Pictograms & Hazard Classes

# GHS PICTOGRAMS & HAZARDS

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.



### CORROSION

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals



### EXCLAMATION MARK

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)



### EXPLODING BOMB

- Explosives
- Self-Reactives
- Organic Peroxides



### SKULLS & CROSSBONES

- Acute Toxicity (fatal or toxic)



### FLAME

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides



### GAS CYLINDER

- Gases Under Pressure



### ENVIRONMENT

- Aquatic Toxicity



### HEALTH HAZARDS

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity



### FLAME OVER CIRCLE

- Oxidizers



To Order Any Additional Required Postings Or For More Information, Please Call...



1-888-306-7377 [OSHA4LESS.com](http://OSHA4LESS.com)

## SAMPLE LABEL

CODE \_\_\_\_\_ } **Product Identifier**  
Product Name \_\_\_\_\_ }

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

### Hazard Pictograms



**Signal Word**  
**Danger**

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.

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

**Precautionary Statements**

### Supplemental Information

#### Directions for Use

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

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

## The Big Change

Material Safety Data Sheets are now called Safety Data Sheets

- All SDS will follow a standardized format
- The standardized format allows for quick reference to specific sections



## SDS Sections

### Section 1: Identification

- Product identifier
- Manufacturer or distributor name
- Address
- Phone number
- Emergency phone number
- Recommended use
- Restrictions on use

### Section 2: Hazard(s) identification

- All hazards regarding the chemical
- Required label elements

### Section 3: Composition/information on ingredients

- Information on chemical ingredients
- Trade secret claims

### Section 4: First-aid measures

- Symptoms
- Effects: acute, delayed
- Required treatment

### Section 5: Fire-fighting measures

- Suitable extinguishing techniques and equipment
- Chemical hazards from fire

### Section 6: Accidental release measures

- Emergency procedures
- Protective equipment
- Proper methods of containment and cleanup

### Section 7: Handling and storage

- Precautions for safe handling and storage
- Incompatible materials

**Section 8: Exposure controls/PPE**

- Permissible Exposure Limit (PEL)
- Threshold Limit Value (TLV)
- Appropriate engineering controls
- Personal Protective Equipment (PPE)

**Section 9: Physical and chemical properties**

- Chemical characteristics

**Section 10: Stability and reactivity**

- Chemical stability
- Possibility of hazardous reactions

**Section 11: Toxicological information**

- 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**

- Date of preparation or last revision

**Supervisor Responsibilities**

- Ensure that all MSDSs are replaced with SDSs
- Create index sheet and tab each SDS
- Site Specific Hazardous Material Training for employees