

# Hazard Communication (HazCom)

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



# Hazard Communication Standard (HazCom)

- OSHA Mandated:
  - The Occupational Safety and Health Administration (OSHA) requires employers to provide their employees with a safe and healthy workplace
- Right to know and understand:
  - The possible dangers you could be exposed to by the hazardous materials you are coming into contact with
  - How to work with hazardous chemicals safely

# **Global Harmonized System of Classification and Labeling of Chemicals (GHS)**

- OSHA Updated the Hazcom Standard to conform to the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS)
- The GHS is an international effort to standardize hazard communication.
- Provides a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets
- Labeling elements and Safety Data Sheets (SDS) requirements improve worker understanding of the hazards associated with the chemicals in their workplace

# Employer Requirements

- Maintain a SDS for each chemical used in the workplace
- Ensure each hazardous chemical in the workplace is properly labeled.
- Provide employees with training on hazardous chemicals used in their work area.
- Develop, implement and maintain a written HazCom program that covers all the items listed above as well as includes a list of all hazardous chemicals in the workplace

# Safety Data Sheets (SDS)

Uniform format including section number, heading and associated information

Standardized placement of information

Give necessary information about how to safely work with a chemical.

Must be readily accessible.

Must be written in English.



# Safety Data Sheet

## Section Format

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



# Label Requirements

The GHS does not specify an exact label format. However, it does require certain provisions...










- Product identification
- Supplier identification
- Symbols (hazard pictograms)
- Signal words
- Hazard statements
- Precautionary information

# 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 1 of the SDS



# 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>

# Hazard Statements

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

All of the applicable hazard statements must appear on the label

Hazard statements are specific to the classification categories

**Example:  
Flammable Liquid**



**Category 1:**  
Extremely flammable liquid and vapor

**Category 2:**  
Highly flammable liquid and vapor

**Category 3:**  
Flammable liquid and vapor

**Category 4:** Combustible liquid

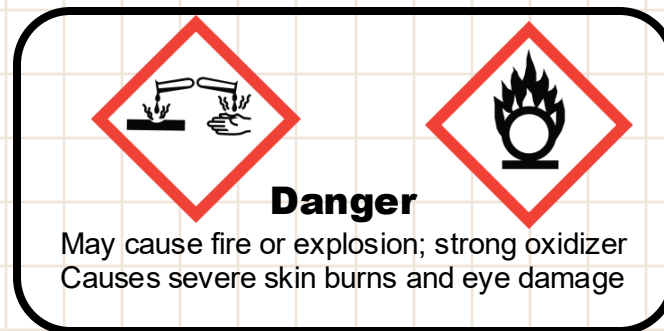
# Signal Words

- Used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label

**Warning**



**Danger**



# Precautionary Statements

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



## Examples of Precautionary Phrases:

- Keep away from heat, sparks, and open flame. No smoking.
- Wash hands thoroughly after handling.
- Wear protective gloves and eye protection.
- Store in a well-ventilated place. Keep cool.



# Label Example

Read label before use. Keep out of reach of children

<b>Flammosol</b>	<b>Product Identifier</b>
<b>FLAMMABLE LIQUID, TOXIC N.O.S.</b> <b>(aliphatic hydrocarbons, toxicole)</b> <b>UN 1992</b>	
Contains: Aliphatic hydrocarbons 95% Toxicole 5%	<b>Signal Word</b> <b>4 L</b> <b>DANGER</b>
 	<b>Pictogram</b>
	<b>Hazard Statement</b> Highly flammable liquid Toxic if swallowed Causes skin irritation
<b>Precautionary Statements</b> IF ON SKIN (or hair): Take off contaminated clothing and wash before re-use. Rinse skin using plenty of soap and water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately seek medical advice/attention. Rinse mouth. Store locked up in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with jurisdictional regulations.	
In case of fire: Use powder for extinction. Keep away from sparks and open flames. - No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye and face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.	
Refer to the Safety Data Sheet before use. Madeup Chemical Company, 999 Chemical Street, Chemical Town, My State, T <a href="http://www.madeup-chemical-company.com.au">www.madeup-chemical-company.com.au</a>	
<b>Supplier Info</b>	

# Workplace Labeling

All chemical containers must be labeled.

Do not use a chemical if a label has been destroyed or defaced.

Some chemicals are broken down into smaller containers. Any small container must have a label to protect yourself and your coworkers.



# Training

- Employees must receive information and training regarding:
  - The requirements of HazCom
  - Locations where hazardous chemicals are present
  - HazCom compliant Safety Data Sheets
  - HazCom compliant Labels
  - The Written HazCom Program
    - G:/SafetyOCHD/SOPs/Hazardous Materials and Waste Management plan
  - Information on the hazards of the specific chemicals used in your area.
    - G:/SafetyDataSheets and in binders in dept.

# Written HazCom Program

- Informs employees of their employer's plan for complying with HazCom.
  - Safety Data Sheets
  - Labels
  - Training Requirements
- The Written HazCom Program should always be available by request.

# Protecting Yourself

- Wear proper PPE (personal protective equipment) as recommended on the label and/or SDS when using chemicals
- Always wash your hands thoroughly after using a chemical
- Locate nearest eyewash station or emergency shower before handling chemicals
- Work with your supervisor to properly dispose of hazardous materials



**Thank You**