

# RIGHT TO KNOW (HAZCOM) VS. RIGHT TO UNDERSTAND (GHS)

## The new GHS mandates

- Help to eliminate confusion created by conflicting national and international requirements
- Standardize the formats for SDSs, making them more useful and understandable.
- Improve chemical labeling. Standardized pictograms and standardized wording gives employees a better understanding of chemical hazards and risks.

## Chemical Labels

Chemical labels from the manufacturer will now always contain the following specific information:

Product Identifier

Supplier Info

Hazard Pictograms

Signal Word

Hazard Statement

Precautionary Statements

## Signal Words

One of two signal words must always be provided on chemical labels, to give an immediate idea to the user the degree of hazard associated with using the chemical

**DANGER**

(greater, more immediate hazard)

**WARNING**

(lesser hazard, although still potentially harmful)

## Pictogram Guide

### Health Hazard



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

### Flame



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

### Exclamation Mark



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

### Gas Cylinder



- Gases Under Pressure

### Corrosion



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

### Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

### Flame Over Circle



- Oxidizers

### Environment (Non-Mandatory)



- Aquatic Toxicity

### Skull and Crossbones



- Acute Toxicity (fatal or toxic)

SAMPLE LABEL	
<b>PRODUCT IDENTIFIER</b> CODE _____ Product Name _____	<b>HAZARD PICTOGRAMS</b> 
<b>SUPPLIER IDENTIFICATION</b> Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____	<b>SIGNAL WORD</b> <b>Danger</b> <b>HAZARD STATEMENT</b> <b>Highly flammable liquid and vapor.</b> <b>May cause liver and kidney damage.</b>
<b>PRECAUTIONARY STATEMENTS</b> 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.	<b>SUPPLEMENTAL INFORMATION</b> <b>Directions for use</b> _____ _____ Fill weight: _____ Lot Number _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____
<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 (on hair): Take off immediately any contaminated clothing. Rinse skin with water.	

## Hazard Statement

describes the nature of the hazard(s) of a chemical, including where appropriate the degree of hazard. All of the applicable hazard statements for a particular chemical must appear on the label.

## Precautionary Statement

is a statement that describes recommended measures that should be taken to minimize or prevent adverse effects.

- There are 82 specific and unique Hazard Statements
- There are over 300 Precautionary Statements

Concentrated Hydrochloric Acid	HAZARD STATEMENTS	Cyclohexanone
 <p><b>DANGER</b></p> <p>Causes severe skin burns and eye damage. May cause respiratory irritation. May be corrosive to metals.</p> <p><b>PREVENTION</b> Do not breathe mists. Use only outdoors or in a well-ventilated area. Wash skin and eyes thoroughly after handling. Wear protective gloves and clothing, and eye and face protection. Keep only in original container.</p> <p><b>RESPONSE</b> If <b>swallowed</b>: Rinse mouth. Do NOT induce vomiting. If <b>in eyes</b>: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If <b>on skin (or hair)</b>: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If <b>inhaled</b>: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor or other medical personnel. Absorb spillage to prevent material damage.</p> <p><b>STORAGE</b> Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep container tightly closed.</p>		 <p><b>WARNING</b></p> <p>Flammable liquid and vapor. Harmful if inhaled. Causes serious eye irritation.</p> <p><b>PREVENTION</b> Keep away from heat, sparks, and open flames. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment, and non-sparking tools. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wear eye protection.</p> <p><b>RESPONSE</b> If <b>inhaled</b>: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell. If <b>in eyes</b>: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. In <b>case of fire</b>: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.</p> <p><b>STORAGE</b> Store locked up, in a cool, well-ventilated place.</p>
	PRECAUTIONARY STATEMENTS	

## Labels for Secondary Chemical Containers



Any material transferred to another container must be labeled.

NFPA and HMIS Labeling systems are going to be moved away from, transition toward new GHS labels

Bear in mind that NFPA and HMIS category system is opposite that of GHS. NFPA and HMIS 1 is the lowest, 4 is the highest, GHS 4 is the lowest and 1 is the highest.

Except for very few circumstances secondary containers must be labeled. IF IN DOUBT, LABEL IT!

*If the container is portable and will be used immediately by the person who transferred it, it doesn't have to be labeled*

## SDS Sheets:

Formerly referred to as MSDS Sheets. The SDS is a source of information about hazards and safety precautions and provide comprehensive information for use in workplace chemical management.. SDS sheets must be made available to all employees at any time. The new SDS format must follow a specified 16 section layout (so it is now easier to use than MSDS). Below is the information that will appear on an SDS (in the following order):

- |  |  |
|--|--|
| 1. Identification of the substance or mixture and of the supplier. | 9. Physical and chemical properties.   |
| 2. Hazards Identification  | 10. Stability and reactivity   |
| 3. Composition/information on ingredients substance/mixture        | 11. Toxicological  |
| 4. First aid measures  | 12. Ecological information (non mandatory)   |
| 5. Firefighting measures.  | 13. Disposal considerations (non mandatory)  |
| 6. Accidental release measures.                                    | 14. Transport information (non mandatory)  |
| 7. Handling and storage.   | 15. Regulatory information (non mandatory)   |
| 8. Exposure controls/personal protection.                          | 16. Other information including information on preparation and revision of the SDS |

