

# Safety Talk

## Chemical Labels in the Workplace

### Before you begin

Collect samples or pictures of container labels from your workplace. Become familiar with the elements of container labels. Identify the type of labelling used in-house (e.g., GHS, HMIS, NFPA or a combination).

The Occupational Safety and Health Administration (OSHA) defines a label as “an appropriate group of written, printed, or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.” This safety talk provides a short overview of chemical labelling requirements in the workplace and the elements of chemical labels. It does not replace a site-specific training program.



### Introduction

Labelling requirements are covered under the OSHA Hazard Communication Standard. Container labels, as a part of your Hazard Communications Program, are an important means for communicating the hazards and relevant information about a chemical. OSHA requires manufacturers, importers, and vendors to provide labels on chemical containers in compliance with its Hazard Communication Standard. You may choose to use the provided labels, reproduce the labels as provided, or produce new labels that provide the necessary relevant information for containers in your workplace. You must train all employees on how to identify label elements and understand the information provided about the hazards associated with the use of the chemical.

## Definitions

**Signal words** – OSHA allows for use of two words to indicate a hazard, ‘Danger’ and ‘Warning’ with Danger indicating the more severe hazard and Warning indicating the less severe hazard.

**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.

**Precautionary statements** – 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 or handling.

**Pictograms** – A composition that may include a symbol plus other graphic elements (e.g., a border, background pattern, or color) that are intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

**Immediate use** – Means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred. (Sometimes referred to as the personal use exemption.)

**Secondary container** – A container other than the original packaging for a chemical or product.

**NFPA** – National Fire Protection Association.

**HMIS** – Hazardous Materials Identification System, which was developed by the National Paint & Coatings Association, which is now known as the American Coatings Association.

## Discussion

All shipped hazardous materials are required to have a container label, which contains the following information:

- Product identifier
- Signal word (Danger or Warning).
- Pictograms.
- Hazard statements.
- Precautionary statements.
- The name, address, and phone number of the responsible party.

In the workplace, employers should keep the labels on shipped containers and produce labels for secondary containers which do not have a label. When producing labels, employers may choose to copy the manufacturer or vendor label or use an alternative such as the NFPA or HMIS labelling systems. At a minimum, labels should include the product identifier and general information about the hazards of the chemical.

It is the employer’s responsibility to ensure that all containers of hazardous materials in the workplace are labelled. Containers without labels could lead to accidental exposure to a chemical. Containers without labels are also an easy target for auditors to identify.


Employers must also train employees on recognizing and understanding the elements of the chosen labelling system at your facility. For example, under the current Hazard Communication number system, 1 indicates the most severe hazard, while 4 indicates the least severe hazard. However, under the NFPA and HMIS number systems the opposite is true, 1 indicates the least severe hazard, while 4 indicates the most severe hazard. For labels in the workplace, the Hazard Communication Standard does not require hazard category numbers on labels (but numbers are required on safety data sheets).

## Conclusion

All employees in the workplace can contribute to making sure labelling requirements are met. Container labels are an important part of a hazard communication program and protect employee health and safety by quickly identifying and communicating hazards.

### Sample container label

**SAMPLE LABEL**

<p>CODE _____ Product Name _____</p> <p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	}	<p><b>Product Identifier</b></p> <p><b>Supplier Identification</b></p>	<p style="text-align: center;"><b>Hazard Pictograms</b></p> <div style="text-align: center;"></div> <p style="text-align: center;"><b>Signal Word</b> <b>Danger</b></p> <p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p> <p style="text-align: center;"><b>Hazard Statements</b></p>
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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.

**Precautionary Statements**

**Supplemental Information**










Directions for Use \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

OSHA 3492-01R 2016

<https://www.osha.gov/Publications/OSHA3492QuickCardLabel.pdf>

## Pictogram examples

	<b>Exploding bomb</b> (for explosion or reactivity hazards)		<b>Flame</b> (for fire hazards)		<b>Flame over circle</b> (for oxidizing hazards)
	<b>Gas cylinder</b> (for gases under pressure)		<b>Corrosion</b> (for corrosive damage to metals as well as skin, eyes)		<b>Skull and crossbones</b> (can cause death or toxicity with short exposure to small amounts)
	<b>Health hazard</b> (may cause or suspected of causing serious health effects)		<b>Exclamation mark</b> (may cause less serious health effects or damage the ozone layer*)		<b>Environment*</b> (may cause damage to the aquatic environment)

<https://www.osha.gov/Publications/OSHA3636.pdf>

## Group activities

Using the samples of container labels you gathered before the session, ask participants to provide the common name and the chemical ingredients.

Make sure workers understand labels must also provide the name of the product manufacturer and the phone number where they can obtain emergency information 24 hours a day, seven days a week. Ask them to locate the emergency phone number on the label.

Given the information presented, identify actions the group can take to maintain or improve safe practices. You might suggest everyone take the following actions:

1. Survey the workplace, or selected work area(s), for unlabeled containers or containers with illegible labels.
2. Ensure labels contain at least the minimum required information.

## Resources

- [OSHA Hazard Communication Standard](#)
- [OSHA Hazard Communication Standard – Appendix C – Allocation of Label Elements](#)
- [Comparison of Haz Com 2012 and NFPA 704 Labels](#)
- [OSHA Quick Card on Hazard Communication Standard Labels](#)
- [OSHA Brief on Labels and Pictograms](#)