

Hazard Communication Standard

Interstate commerce drove OSHA to create HazCom (Hazard Communication, 29CFR1910.1200), also referred to as HCS or HCS 2012. International trade motivated a globally harmonized system of information about chemicals (Globally Harmonized System or GHS).

Changes over time:

1983	Right to Know
1987	Right to Know expanded
1996	Right to Know updated
2012	Right to Understand

Labels and SDSs consistent with HCS 2012 became legally required on December 1, 2015. Manufacturers and suppliers are responsible for providing these labels and SDSs. Employers are responsible for maintaining labels on containers, in a readable form.

This is an interactive session. Working in small groups, you will complete activities using HCS, worksheets and pictograms.

When finished, you will be better able to:

- Identify the meaning of label elements
- Link pictograms and hazards
- Identify acceptable labels
- Demonstrate use of label information
- Use an SDS format to find information
- Show relation between label and SDS information

Activity 1: What are all these words?

In this first activity, you will use HCS 2012 to find definitions used in the requirements for labels. The standard can be found here <https://www.osha.gov/hazcom/ghs-final-rule>

In your small group, work with the standard to find definitions of terms shown on Worksheet 1. Label Terms Defined below. Think about how the term will help you understand HCS 2012 and potential workplace hazards.

Report the definitions your group found and how the information will be used. Keep the definitions at hand as you complete other activities.

Hazard Communication Standard – Participant Guide

Worksheet 1: Label Terms Defined

Term	Definition	Why is this important? <u>AND/OR</u> How will you use this in the workplace?
Precautionary Statement		
Signal Word		
Product Identifier		
Hazard Statement		
Label Element		
Hazardous Chemical		
Label		
Pictogram		

Activity 2: What are all these pictures?

Below are the HCS Pictograms and Hazards. They can also be found at <https://www.osha.gov/sites/default/files/publications/OSHA3491QuickCardPictogram.pdf>

All pictograms are a red square, set on edge, enclosing a black symbol on white background. The words below each pictogram are the Hazard Classes that are covered by the figure.

In your group, make a list of any term associated with a pictogram that you want more information to understand. For example, ‘What is target organ toxicity?’. Work with your group to find the answer to your questions.


HCS Pictograms and Hazards

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

Gas Cylinder




- Gases Under Pressure

Corrosion




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

Flame Over Circle



- Oxidizers

Environment (Non-Mandatory)



- Aquatic Toxicity

Exclamation Mark



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

Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

Skull and Crossbones



- Acute Toxicity (fatal or toxic)

Activity 3: Labels

You will use the OSHA Quick Card: Sample Label found here

<https://www.osha.gov/sites/default/files/publications/OSHA3492QuickCardLabel.pdf>

You will use labels found on Worksheet 2: Labels below, labels provided by the facilitator, or pictures of labels from your workplace. Using your definitions of label and label elements, and the Quick Card, identify the labels that would be acceptable under HCS 2012.

Make notes below each of any missing label elements.

Now look at Appendix C to 1910.1200 – Allocation of Label Elements. This appendix is mandatory and describes further the label elements. A few key points:

- Label must include name, address and telephone number of the manufacturer/importer/responsible party (C.1). Product identifier on label must match SDS.
- There is a hierarchy of signal words (C.2.1.1)
 - Danger or Warning must be used
 - If Danger is used, Warning is not
- There is a hierarchy of pictograms
 - If skull/crossbones, then exclamation mark not used for acute toxicity (C.2.1.2)
 - If corrosive pictogram, exclamation not used for skin/eye irritation (C.2.1.3)
 - If health hazard pictogram for respiratory sensitization, exclamation not used for skin sensitization or skin/eye irritation (C.2.1.4)
- Hazard statements can be combined (C.2.2)
- There are four types of Precautionary Statements (C.2.4.1)
 - Prevention
 - Response
 - Storage
 - Disposal

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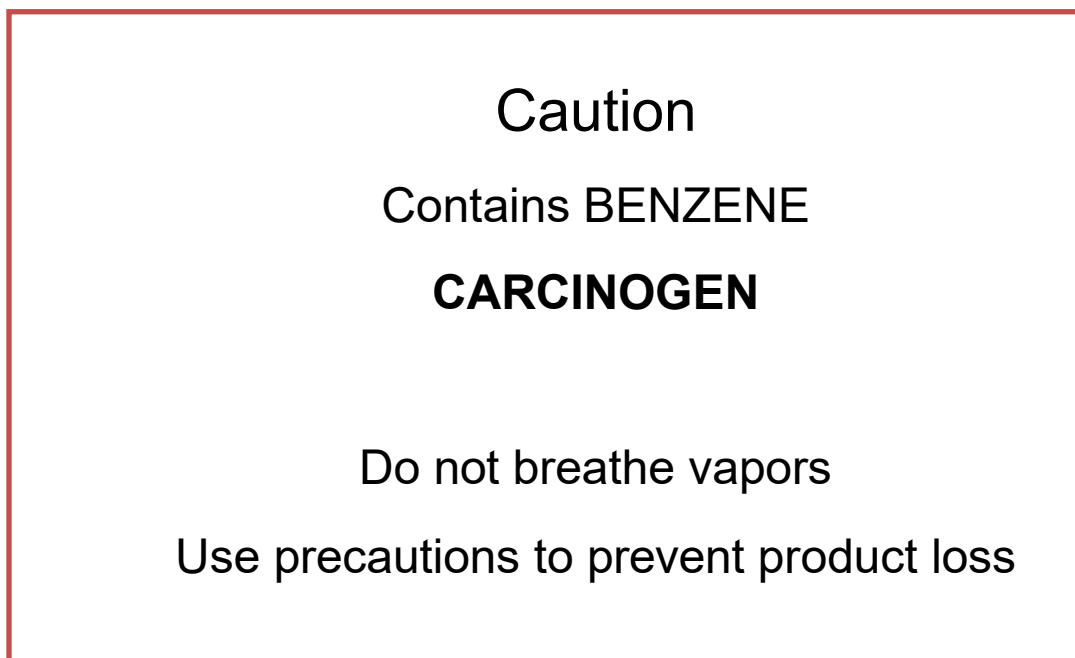
Each Hazard Class is detailed in C.4. Shown for each are:

- Hazard Category
- Signal Words
- Hazard Statements
- Pictograms
- Precautionary Statements

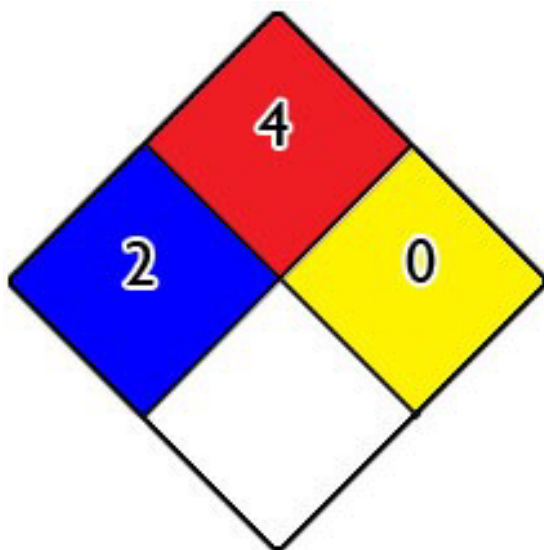
Look through these pages so you are familiar with them as a resource. The facilitator will provide a sample label or label from your worksite. Complete Worksheet 3: Where is health and safety information on the label? to show where specific information is found. Work in small groups to find the information and complete the Worksheet. Be prepared to share during a report back.

Worksheet 2

Label 1





Label 2



Label 3



Label 4

	ToxiFlam (Contains: XYZ)	
Danger! Toxic If Swallowed, Flammable Liquid and Vapor		
<p>Do not eat, drink or use tobacco when using this product. Wash hands thoroughly after handling. Keep container tightly closed. Keep away from heat/sparks/open flame. – No smoking. Wear protective gloves and eye/face protection. Ground container and receiving equipment. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Store in cool/well-ventilated place.</p>		
<p>IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician. Rinse mouth.</p>		
<p>In case of fire, use water fog, dry chemical, CO₂, or “alcohol” foam.</p>		
<p>See Material Safety Data Sheet for further details regarding safe use of this product</p>		
<p>MyCompany, MyStreet, MyTown, NJ 00000, Tel: 444 999 9999</p>		

Label 5



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Worksheet 3: Where is health and safety information on the label?

Type of information	Label Element (s)	Answer
What is the appropriate firefighting agent?		
Is a respirator needed?		
What is the hazard?		
What PPE is needed?		
Are there storage requirements?		
Do I need special tools?		
Is there a contact, if needed?		
What is the product?		
What action is need if someone is splashed on the skin?		

Activity 4: Safety Data Sheet

In order to make this resource useful to workers, the SDS is in a standardized format which can be seen in the OSHA Quick Card: Safety Data Sheets found here

<https://www.osha.gov/sites/default/files/publications/OSHA3493QuickCardSafetyDataSheet.pdf>

This resource lists each of part of the SDS. Regardless of supplier or manufacturer, the order of the information must be as listed.

Now look at Appendix D of 1910.1200 and review the minimum information that must be in each part. The Product Identifier and Precautionary Statements in the SDS match those on the Label.

The facilitator will provide an SDS for you to use in this activity. Complete Worksheet 4: Using an SDS.

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Worksheet 4: Using an SDS

Type of information	Section	Answer/Information
What is the appropriate firefighting agent?		
What is the physical form of the hazard?		
Is a respirator needed?		
What is the allowable workplace exposure (PEL or TLV)		
What is the hazard?		
What PPE is needed?		
Show information from two different sections that must be on the label.		
Are there storage requirements?		
Do I need special tools?		
Is there a contact, if needed?		
What is the product?		
Is there an acute health effect?		
What action is need if someone is splashed on the skin?		

Activity 5: What are the best features of HCS 2012?

In your small groups, discuss how this label system and SDS format is (or is not) useful at work.