

Hazardous Materials Communication Education



The Right To Understand



CME Accreditation

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CME Accreditation Information

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What is the GHS?

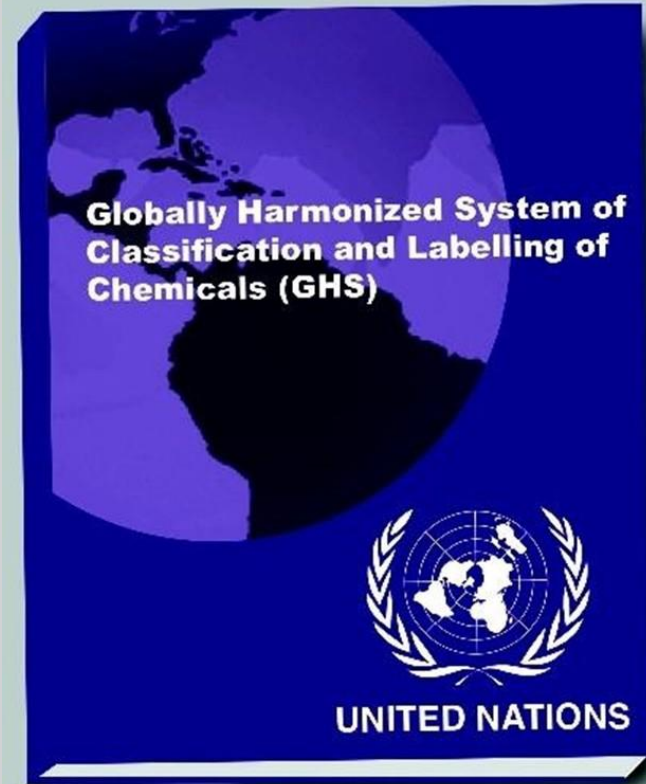
The GHS is an acronym for The Globally Harmonized System of Classification and Labeling of Chemicals.

The GHS is a system for standardizing and harmonizing the classification and labeling of chemicals. It is a logical and comprehensive approach to:

Defining health, physical and environmental hazards of chemicals;

Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and

Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).



So, what does that mean for you?

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There are 5 New Elements You Need to Understand Within OSHA'S New HazCom Standard.

1 - Signal Words:

Danger = Highest Hazard Chemicals

Warning = Lower (Medium) Hazard Chemicals

No Signal Word = Low Hazard Chemicals

2 – Hazard Classification:

Manufacturers are now required to “classify” their products according to the “intrinsic hazards of the ingredients that make up that product.” Things like Flammable Liquids, Corrosive to Metals, Explosive, etc.

3 – Pictograms:

A graphic (pictorial) representation of the hazard (see slide 6)

4 – Hazard Statements:

“Standardized,” “assigned” phrases that describe the hazard. Things like “Extremely Flammable Aerosol and Vapor,” or Toxic and Corrosive Liquids.”

5 – Precautionary Statements:

Additional information that provides measures to be taken to minimize or prevent adverse effects of the hazard. There are 4 types of Precautionary Statements – Prevention, Storage, Disposal and Response to exposure or spillage of a Hazardous Material.

What are the GHS Hazard Classifications?

Physical Hazards:

- Explosives
- Flammable Gases
- Flammable Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Reactive Substances
- Pyrophoric Liquids
- Pyrophoric Solids
- Self-Heating Substances
- Substances which, in contact with water emit flammable gases
- Oxidizing Liquids
- Oxidizing Solids
- Organic Peroxides
- Corrosive to Metals

Health Hazards:

- Acute Toxicity
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive Toxicology
- Target Organ Systemic Toxicity-Single Exposure
- Target Organ Systemic Toxicity-Repeated Exposure
- Aspiration Toxicity

Environmental Hazards:

- Hazardous to the Aquatic Environment
 - Acute aquatic toxicity
 - Chronic aquatic toxicity
 - Bioaccumulation potential
 - Rapid degradability

Classification is the starting point for the GHS

Once a chemical has been classified, the hazard(s) must be communicated to target audiences. As in existing systems, **labels** and **Safety Data Sheets** are the main tools for chemical hazard communication.

What are the required Label Elements (Official OSHA Definitions)?

Product Identifier (ingredient disclosure): Name or number used for a hazardous product on a label or in the SDS.

Supplier identification: The name, address and telephone number should be provided on the label.

Signal Words:

The signal word indicates the relative degree of severity of a hazard. The signal words used in the GHS are:

"Danger" for the more severe hazards, and

"Warning" for the less severe hazards.

Signal words are standardized and assigned to the hazard categories within endpoints. Some lower level hazard categories do not use signal words. Only one signal word corresponding to the class of the most severe hazard should be used on a label.

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Hazard Statements: Hazard statements are standardized and assigned phrases that describe the hazard(s) as determined by hazard classification. An appropriate statement for each GHS hazard should be included on the label for products possessing more than one hazard.

Precautionary Statements: Precautionary information supplements the hazard information by briefly providing measures to be taken to minimize or prevent adverse effects from physical, health or environmental hazards. First aid is included in precautionary information.

There are four types of precautionary statements covering: prevention, response in cases of accidental spillage or exposure, storage, and disposal

Pictograms: A composition that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.



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HCS Pictograms and 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.

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

Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle



- Oxidizers

Environment (Non-Mandatory)



- Aquatic Toxicity

Skull and Crossbones



- Acute Toxicity (fatal or toxic)


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Hazard Communication Standard Labels:

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have:

- Pictograms
- A Signal Word
- Hazard & Precautionary Statements
- Product Identifier
- Supplier Identification.

A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided on the label as needed.

SAMPLE LABEL	
PRODUCT IDENTIFIER CODE _____ Product Name _____	HAZARD PICTOGRAMS 
SUPPLIER IDENTIFICATION Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____	SIGNAL WORD Danger
PRECAUTIONARY STATEMENTS 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. In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO ₂) fire extinguisher to extinguish. First Aid If exposed call Poison Center. If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.	HAZARD STATEMENT Highly flammable liquid and vapor. May cause liver and kidney damage.
	SUPPLEMENTAL INFORMATION Directions for use _____ _____ _____ Fill weight: _____ Lot Number _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____

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**Does all of this apply to “Workplace” or “Secondary Container” Labels?
Here’s what OSHA says:**

1910.1200(f)(6):

Workplace labeling. Except as provided in paragraphs (f)(7) and (f)(8) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either:

1910.1200(f)(6)(i)

The information specified under paragraphs (f)(1)(i) through (v) of this section for labels on shipped containers; or,

1910.1200(f)(6)(ii)

Product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

Meaning, “Workplace” or “Secondary Container” labels can be the same as the shipping label or can contain only Product Identifier and “Words, pictures, symbols or combination thereof” that provide general information about the hazards of the chemicals.

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Now, let's talk about the new Safety Data Sheets (SDS).

- No longer known as MSDS.
- Sixteen Standardized Sections
- Specific Information required in each section.
- Rather than simplified, most SDS will be longer and more technical in nature.



Hazard Communication Safety Data Sheets:

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products.

As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings listed on the right:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes 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, includes the date of preparation or last revision.

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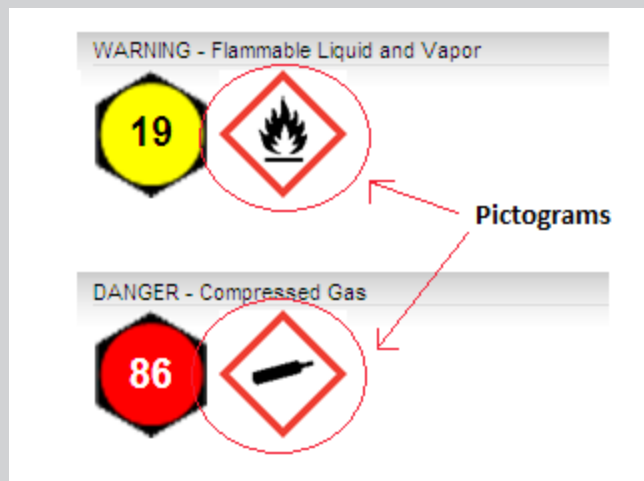
What is the first thing I need to do to satisfy the OSHA training requirement?

The first compliance date of the revised HCS was December 1, 2013. From that date forward, all employees must be trained on the new label elements and the SDS format.

- **Training on label elements must include information on:**
 - Type of information the employee would expect to see on the new labels:
 - Product Identifier
 - Signal Word
 - Pictogram
 - Hazard Statements
 - Precautionary Statements
 - Name, Address and Phone Number of Manufacturer, Supplier or Importer
 - How an employee might use the labels in the workplace.
 - General understanding of how the elements work together on a label.
- **Training on the format of the SDS must include information on:**
 - Standardized 16-section format, including the type of information found in the various sections.
 - How the information on the label is related to the SDS

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Feeling a little overwhelmed? Don't worry, the MaxCom|Incora system has it all covered!



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And more:

Hazard Statements

Contains gas under pressure; may explode if heated

Precautionary Statements

Administer oxygen for difficult breathing. Call 911 or Emergency Medical Services.
Do not enter low-lying areas. Do not remove clothing if adhered to skin.

Secondary Container Label

Acetone



DANGER

Highly Flammable Liquid and Vapor

Hazards: Irritant, Toxic Decomposition Products

Routes of Exposure: Inhalation, Ingestion, Skin Absorption, Eyes, Skin Contact

Target Organs: Liver, Kidneys, Brain CNS PNS, Lungs Respiratory System, Eyes, Cutaneous Hazard

PPE: **Eye/Face** - Use Face Shield; **Resp** - Utilize Vent Hood; **Other** - Use Protective Gloves

Label Notes: Test Note

Sigma-Aldrich - +18003255832

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HazCom GHS required elements for chemicals in use at Providence--and its family of organizations--are available on the MaxCom|Incora-HazCom system.

The MaxCom|Incora-HazCom system is accessible through the MyApps portal and the link is located on the SharePoint pages for the System and Regions.

Instructions:

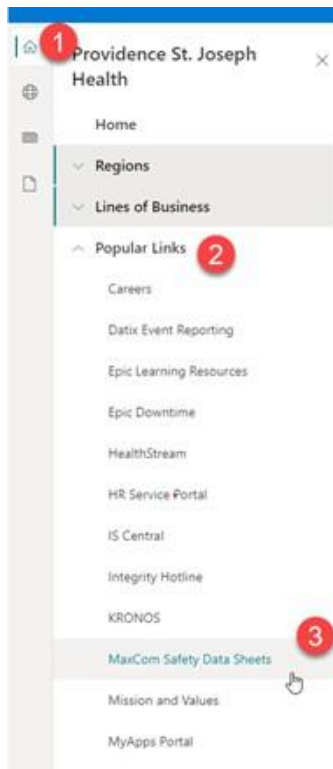
Open the MyApps Portal.

Open SharePoint and choose the System or a Regional SharePoint page:

- * Click on the Home/Global Navigation icon on left-hand side**
- * Click on Popular Links**
- * Click on MaxCom Safety Data Sheets**

The MaxCom|Incora-HazCom link has the login and password information embedded in the link, so no login credentials are required to access the system and its information.

Below is a visual representation of the instructions on the prior slide AFTER opening a System or Regional SharePoint page:



If you need SDS information and do not have access to the MyApps portal -

Ask a Providence caregiver or manager to assist by accessing the system and pulling the relevant chemical SDS for you.

Completion Attestation

STOP!

To be marked complete for reviewing this education, please fill out the [Education Attestation](#). It will take less than 3 minutes of your time.

You will be asked to provide an email to receive your Certificate of Completion and *the opportunity to claim 0.25 CME credits.*



ATTESTATION