



**BRADY CLIENT SERVICES**  
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**HazCom 2012**

**Adoption of the Globally Harmonized System  
of Classification and Labeling of Chemicals  
(GHS) guideline**



## Heather Marena

- Client Services Engagement Manager for Brady Corporation
- As Heather is a member of ASSE, SCHC, and NFPA and has more than 15 years experience consulting, educating and developing solutions for industry regulatory compliance, safety and environmental concerns.

# OSHA's Final Ruling

OSHA has updated its Hazard Communication Standard (HCS) 1910.11200 to align with the United Nations' *Globally Harmonized System of Classification and Labeling of Chemicals* (GHS). **Effective May 25, 2012**

## Modifications include:

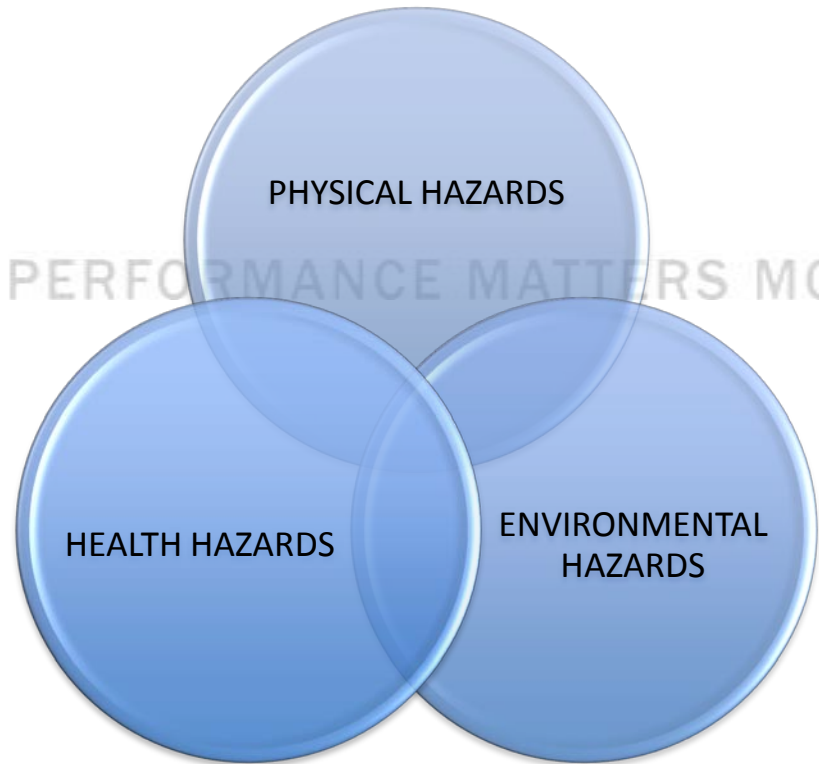
- Revised criteria for classification of chemical hazards
- Revised and standardized labeling requirements – Primary & secondary containers
- A specified format for safety data sheets
- Requirements for employee training on labels and safety data sheets **12-1-2013**



Based off of the 3rd revised edition of GHS.

# GHS Basics

GHS provides criteria for classifying substances and mixtures according to their health, physical and environmental hazards, then effectively communicating this.



# The Adoption of GHS

- Hazard Communication main goal is to protect people by educating on chemical hazards and proper protection
- The updated standard will increase comprehensibility with universal standardization
- The basic Hazard Communication regulation will not change
- The bulk of the changes will impact chemical manufacturers, employers who classify hazards, prepare labels, and author Safety Data Sheets (SDS's)

**Update**

***1. Written Hazard Communication Plan***

**Update**

***2. Chemical Inventory***

**Major**

***3. Labels & Warnings***

**Major**

***4. Safety Data Sheet Documents***

**Required**

***5. Employee Training***

## Model Hazard Communication Program

### 1. Company Policy

To ensure that information about the dangers of all hazardous chemicals used by (Name of Company) is known by all affected employees, the following hazardous information program has been established:

### 2. Container Labeling – **Revise & Train**

### 3. Material Safety Data Sheets (MSDSs) – **Revisions. Obtain & Train**

### 4. Employee Training and Information – **Update**

### 5. Hazardous Non-routine Tasks

### 6. Informing Other Employers/Contractors

### 7. List of Hazardous Chemicals – **Update Your Inventory**

### 8. Chemicals in Unlabeled Pipes

### 9. Program Availability

A copy of this program will be made available, upon request, to employees and their representatives.

- **Review your chemical inventory:**
  - Update/Prepare list of chemicals
  - Survey the workplace for chemicals:
    - Solids/liquids/gases/fumes
  - Check for updated SDS's and current MSDS's
  - Have procedures to record:
    - New chemical receipts
    - Chemical purging & disposal
    - MSDS/SDS management for both.
  - Include chemical list to written program

\*Your chemical inventory should be reviewed annually



# Label Standardization

From divergent HazCom systems ...

NFPA RTK - US

**Methanol**  
67-56-1  
WARNING  
HEALTH HAZARDS:  
ORGAN HAZARDS:  
Kidney  
If ingested, do not induce vomiting or water.  
CONSULT MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION ON HAZARDS.

**Lead**  
7439-92-1  
DANGER  
HEALTH HAZARDS: Poison  
ORGAN HAZARDS: Nervous System, Kidney, Blood, Reproductive System  
Consult Material Safety Data Sheet for further information on hazards.

Globally-Standardized GHS Std

WHMIS Std - Canadian RTK

**Acetone 1128-89**

Be sure to handle this substance safely!!  
Target health hazards include corrosive hazard and vapor hazard. always wear proper PPE and consult Material Safety Data Sheet

REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION  
POUR PLUS D'INFORMATION, CONSULTEZ LA FICHE SIGNALÉTIQUE

HSID Std - Europe

**Acetone**  
ACETONE

Internal Ref. #

250L

**ENGLISH:** H200: Unstable explosives. - H221: Flammable gas. - H260: In contact with water releases flammable gases which may ignite spontaneously.  
P101: If medical advice is needed, have product container or label at hand. - P220: Keep away from combustible materials. - P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.

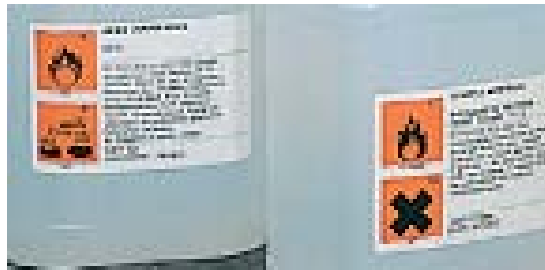
**FRANCAIS:** H200: Explosif instable. - H221: Gaz inflammable. - H260: Dégage au contact de l'eau des gaz inflammables qui peuvent s'enflammer spontanément.  
P101: En cas de consultation d'un médecin, garder à disposition le récipient ou l'étiquette. - P220: Tenir à l'écart des matières combustibles. - P223: Éviter tout contact avec l'eau, à cause du risque de réaction violente et d'inflammation spontanée.

<b>DANGER</b>	222222-22-2	333-333-33-3
<b>DANGER</b>	111-111-1	Reach Authorization #

Brady Corporation  
6555 West Good Hope Road  
Milwaukee, WI 53223

Insert Comment here: ...

414-444-4444



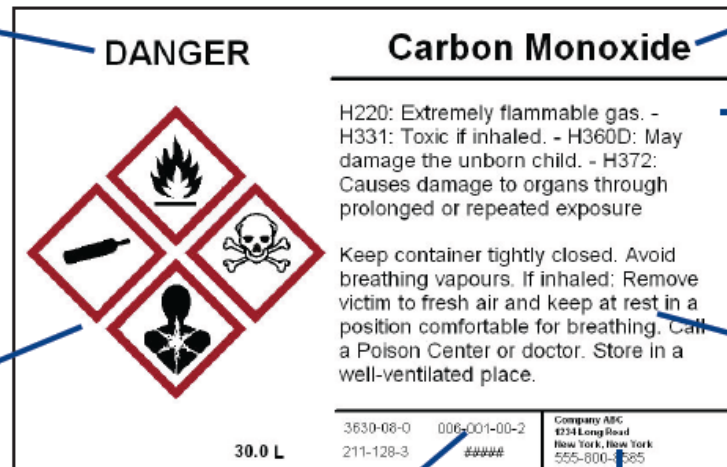
## Six Elements of the GHS label format

### 1. Signal Word:

Indicates relative level of hazard. "Danger" is used for most severe instances, while "Warning" is less severe.

### 2. Symbols (Hazard Pictograms):

Convey health, physical and environmental hazard information with red diamond pictograms. May use a combination of one to five symbols.



*\*Additional Product Identifiers*

### 3. Product Name or Identifiers\*

### 4. Hazard Statements:

Phrases that describe the nature of hazardous products and oftentimes the degree of hazard.










### 5. Precautionary Statements:

Phrases associated with each hazard statement, that describe general preventative, response, storage or disposal precautions.

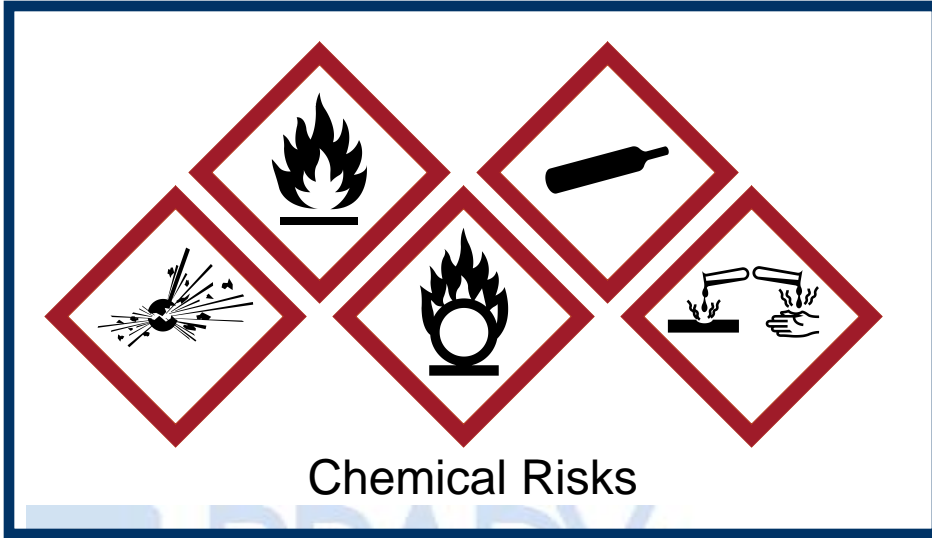
### 6. Manufacturer Information:

Company name, address & telephone number.

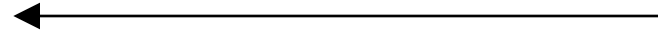
# GHS Pictograms

 <p><b>Health Hazard</b> Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitizer Target Organ Toxicity Aspiration Toxicity</p>	 <p><b>Flame</b> Flammable Pyrophorics Self-Heating Emits Flammable Gas Self-Reactive Organic Peroxides</p>	 <p><b>Exclamation Mark</b> Irritant (skin and eye) Skin Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer (Non Mandatory)</p>
 <p><b>Gas Cylinder</b> Gases Under Pressure</p>	 <p><b>Corrosion</b> Skin Corrosion / Burns Eye Damage Corrosive to Metals</p>	 <p><b>Exploding Bomb</b> Explosives Self-Reactives Organic Peroxides</p>
 <p><b>Flame over Circle</b> Oxidizers</p>	 <p><b>Skull and Crossbones</b> Acute Toxicity (Fatal or Toxic)</p>	 <p><b>Environment</b> (Non Mandatory per OSHA) Aquatic Toxicity</p>

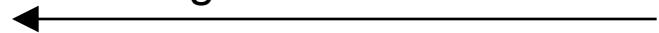
# Label Elements- Pictograms





Pictograms 01 – 05 in order



Pictograms 06 – 08 in order



# Representative GHS Label

Internal Ref. #

250L

## Acetone

ACETONE

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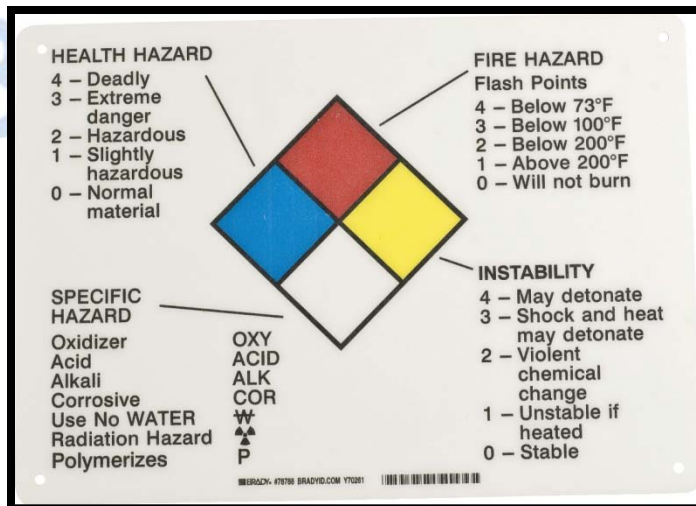
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Brady Corporation 6555 West Good Hope Road Milwaukee, WI 53223 414-444-4444	Insert Comment here: ...
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# NFPA 704 and HMIS Systems

- There are currently **no plans to change** the existing NFPA 704 and HMIS Systems and Classification
- These systems will still be used primarily to convey hazardous information to emergency first responders



# Safety Data Sheet Changes

## New SDS Order and Elements

1. Identification of the substance or mixture and of the supplier
2. Hazards identification
3. Composition/information on ingredients
4. First aid measures
5. Firefighting 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 information on preparation and revision of the SDS

- GHS harmonization will standardize the order of SDS information for ease of use for employees along with improved accuracy of the information presented
- Previously known as Material Data Safety Sheets (MSDS), it is now referred to as Safety Data Sheets (SDS).
- The number of sections has been increased from a nine section format to 16 sections.

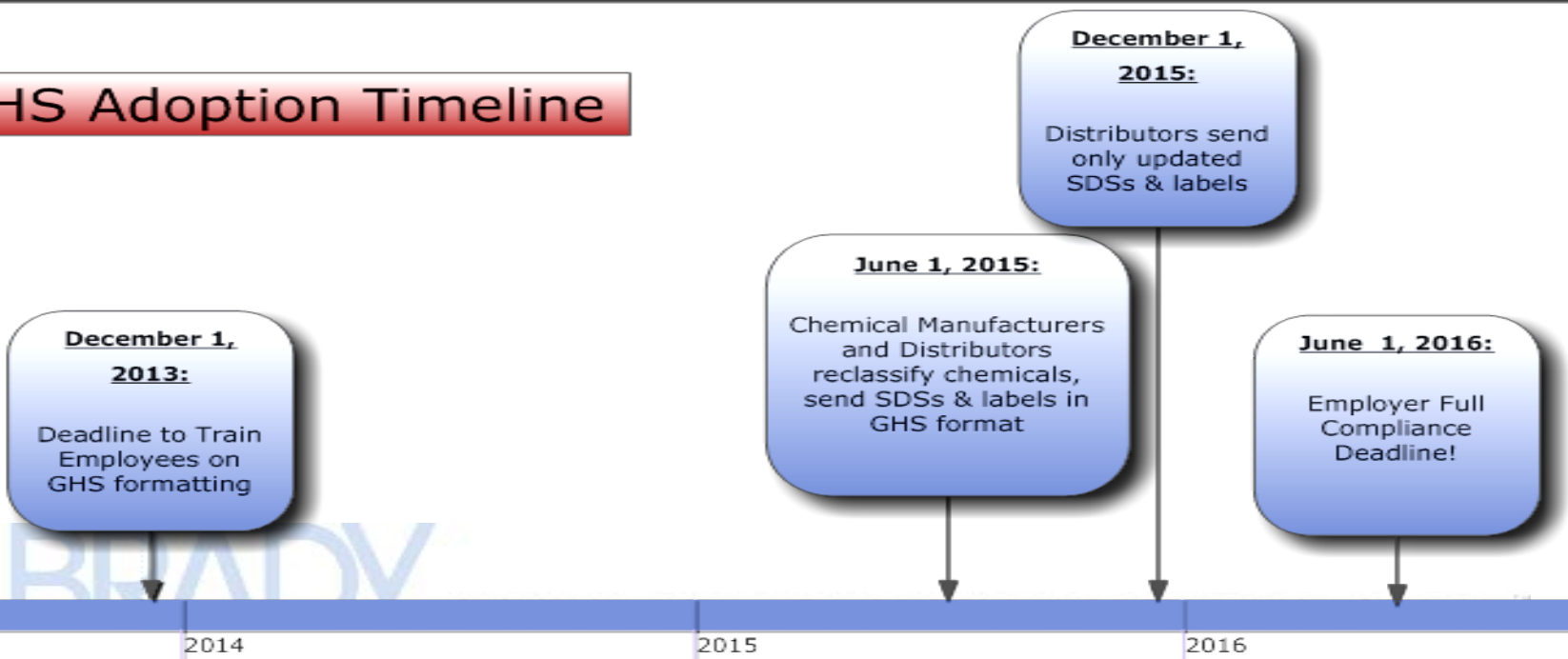
- A. Understanding the new Hazard Communication Standard
- B. Understanding the Safety Data Sheet
- C. Understanding Labels
  - Pictograms
  - Signal Words
  - Hazard Statements
  - Precautionary Statements
- D. Understanding Relationship of SDS and Label
- E. Understanding Health Information





# Key Dates to Remember

## GHS Adoption Timeline



- Key Steps**
- ✓ Designate GHS Leader
  - ✓ Inventory Chemicals
  - ✓ Update SDS Library
  - ✓ Train Employees on GHS formatted labels and SDSs
  - ✓ Track new GHS labels and SDSs entering facility
  - ✓ Plan for entire library to be updated
  - ✓ Get a GHS compliant secondary container labeling strategy

- Tasks to Prep for Next Deadline**
- ✓ Compare old SDS to new ones
  - ✓ Note any new hazards on SDSs requiring new training
  - ✓ Secure missing SDSs
  - ✓ Archive older versions
  - ✓ Update written HazCom program
  - ✓ Re-label secondary containers, if necessary
  - ✓ Train employees on new hazards
  - ✓ Meet SARA/EPCRA reporting obligations
  - ✓ Stay current on GHS

- Must Do's for Chemical Mfgs and Distributors**
- ✓ Gather relevant chemical data
  - ✓ Review data to determine hazards
  - ✓ Classify / categorize
  - ✓ Use bridging principles to determine hazards for mixtures if needed
  - ✓ Produce/Author/Re-Author safety data sheets and labels in GHS format
  - ✓ Ensure SDSs and labels address specific standards of each country to which they ship (even GHS adoption differs region to region)

- SDS is required to convert secondary container labels
- New SDS's and primary container labels will begin arriving
  - Replace old MSDS's with new SDS's
  - Keep all MSDS, consider separate binders for MSDS vs SDS
- Review current HazCom written plan
  - Update as needed until 2016
- Update your chemical inventory – Annual requirement
  - Dispose of product no longer in use or with no MSDS/SDS
- Talk to your vendors about their new plan
- Don't forget to notify your local emergency services with new SDS information
- Train your employees, repeat

# Thank you!

## Brady Client Services Offers:

GHS Awareness Training

GHS Seminars

## For Training or Services questions, contact:

Tim Van Hoecke  
Fisher Scientific  
Manager, Application Selling  
Western US

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Or [Bradyclientservices@bradycorp.com](mailto:Bradyclientservices@bradycorp.com)

## Contact your local Fisher Representative for Brady GHS PRODUCTS including:

Stock Signs

Custom Signs

Pre-printed GHS Pictogram labels

Printers

Specialty Chemical Labels

Chemical Labeling Software

