

How the new Hazard Communication Standard  
will affect fabricators and erectors—and how to prepare for it.

# Altering Alerts

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**ON MARCH 26, 2012** OSHA published the first major revision to the 1994 *Hazard Communication Standard* (HazCom) (OSHA 1910.1200 & OSHA 1926.59) to align it with the Globally Harmonized System (GHS).

When the standard was first published in 1983, it was generally known as the “Right to Know” standard. The new standard will come to be known as the “Right to Understand” standard. There are many changes in the HazCom that will affect steel fabricators and erectors, while other areas will remain the same, with some enhancements.

The majority of the changes required by the new HazCom will affect the manufacturers of the chemicals used by fabricators and erectors. Instead of material safety data sheets (MSDS) manufacturers must now issue safety data sheets (SDS). When the 1994 HazCom was published, there was a requirement that MSDS contain eight sections:

- Section I. Manufacturer's Name and Contact Information
- Section II. Hazardous Ingredients/Identity Information
- Section III. Physical/Chemical Characteristics
- Section IV. Fire and Explosion Hazard Data
- Section V. Reactivity Data
- Section VI. Health Hazard Data
- Section VII. Precautions for Safe Handling and Use
- Section VIII. Control Measures

Although every MSDS contained this information, there was no standard format for these items to appear on the MSDS. The new SDS contain sixteen sections:

- Section 1. Chemical Product and Company Information
- Section 2. Composition/Information on Ingredients
- Section 3. Hazards Identification
- Section 4. First Aid Measures
- Section 5. Fire Fighting Measures
- Section 6. Accidental Release Measures
- Section 7. Handling and Storage
- Section 8. Exposure Controls/Personal Protection
- Section 9. Physical and Chemical Properties
- Section 10. Stability and Reactivity
- Section 11. Toxicological Information
- Section 12. Ecological Information
- Section 13. Disposal Considerations
- Section 14. Transport Information
- Section 15. Regulatory Information
- Section 16. Other Information

There is now an ANSI standard for the proper format of a SDS (Z400.1/Z129.1-2010, *Hazardous Workplace Chemicals—Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation*). This means that every SDS will have the



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same format, which will make it easier for employees to find information, since each section will be in the same location on every SDS no matter what the chemical.

Manufacturers will now be required to have more informative and uniform labels (see the sample label at right) on their products, which will contain the following:

1. Product Identifier
2. Supplier Identification
3. Signal Word(s)
4. Hazard Statement(s)
5. Precautionary Information
6. Pictogram(s)

These terms are defined in the regulation, but the term “Pictogram” may require some clarification. A pictogram is a black hazard symbol on a white background with a red diamond border. There are nine pictograms in all with symbols corresponding to flammables, oxidizers, compressed gases, acute toxicity, health hazard, corrosives, irritants and environmental hazards (see chart at right). Labels for many products will contain more than one pictogram due to the fact that the products meet the criteria for more than one hazard category. These were developed to communicate the hazard to employees without using words (the “Right to Understand”).

All of these pictograms affect the manufacturers of products, but how do they affect fabricators and erectors? As stated previously, many areas remain the same in HazCom with some slight adjustments. Every employer must maintain a record of all of the hazardous chemicals in their facility or on their jobsite. Instead of having copies of MSDS, they must have copies of SDS. Generally, chemicals used in fabricating and erecting steel are shipped by the manufacturer in large containers. Most fabricators and erectors transfer the chemicals from the larger container to a smaller or secondary container for use.

There are two options for the use of these secondary containers. The first is that every secondary container must be labeled the same as before but the label must contain not only the name of the product but also state the hazardous properties of the product and contain the same pictogram(s), with the red border, as the label on the original container as supplied by the manufacturer. The second option is to have the secondary containers stored in an area that is labeled with not only the name of the product but also with the hazardous properties of the product and contain the same pictogram(s), with the red border, as the label on the original container as supplied by the manufacturer. As the secondary container is removed for use to during the work shift, the worker must maintain control of the container and must be in visual contact with the container

**SAMPLE LABEL**

**Product Identifier**


CODE \_\_\_\_\_  
Product Name \_\_\_\_\_

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**Supplier Identification**

Company Name \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Emergency Phone Number \_\_\_\_\_

**Hazard Pictograms**



**Signal Word**  
**Danger**

**Hazard Statements**

Highly flammable liquid and vapor.  
May cause liver and kidney damage.

**Precautionary Statements**

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.

**Supplemental Information**

**Directions for Use**

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\_\_\_\_\_

\_\_\_\_\_

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

Figures: OSHA

- ▲ Manufacturers will be required to have more informative and uniform labels.
- ▼ Sample pictograms of various hazards.

<p><b>Health Hazard</b></p>  <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	<p><b>Flame</b></p>  <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Emits Flammable Gas</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>	<p><b>Exclamation Mark</b></p>  <ul style="list-style-type: none"> <li>• Irritant (skin and eye)</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic Effects</li> <li>• Respiratory Tract Irritant</li> <li>• Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
<p><b>Gas Cylinder</b></p>  <ul style="list-style-type: none"> <li>• Gases Under Pressure</li> </ul>	<p><b>Corrosion</b></p>  <ul style="list-style-type: none"> <li>• Skin Corrosion/ Burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	<p><b>Exploding Bomb</b></p>  <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
<p><b>Flame Over Circle</b></p>  <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<p><b>Environment (Non-Mandatory)</b></p>  <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<p><b>Skull and Crossbones</b></p>  <ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>

at all times. At break time or at the end of the shift, the container must be returned to the labeled storage area unless it is empty.

As part of the new HazCom, every employer must retrain or train their employees in all aspects of the new standard including how to identify hazards from just the pictogram. This means that even if employees had been trained in the past in the 1994 version, they must be retrained in the new 2012 version. In the past, training was generally required to inform employees of the hazardous material in the fabrication facility or job site and let them know where the MSDS were located. Under the 2012 version employees must be informed of the same items but they also are required to identify specific hazards as portrayed by the pictograms(s) on the label.

There are some critical compliance dates in the 2012 HazCom:

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|------------------|---|
| December 1, 2013 | Employers must train employees on the new label elements and SDS format.  |
| June 1, 2015     | Manufacturers must comply with all modified provisions of the 2012 <i>Hazard Communication Standard</i> except distributors may ship products labeled by manufacturers under the old system until December 1, 2015. |
| June 1, 2016     | Update alternate workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.  |

What does this mean for fabricators and erectors? Management of fabrication and erection companies will be required to train their employees in all new label formats, including the understanding of pictograms, and the new SDS format by December 1, 2013. The challenge in performing this is that manufacturers will not be required to label their products with the new GHS label until June 1, 2015—and they may not appear in facilities until December 1, 2015. Therefore, fabrication/erection management will be required to train their employees and document that training on a system that they may not see for up to two years.

The actual workplace hazard communication program is not required to be updated in accordance with the standard until June 1, 2016. From a practical standpoint, a workplace hazard communication standard may need to be updated prior to December 1, 2013 so that there is a document for training employees. Shops/erectors must also meet the requirements of the new secondary labeling system by June 1, 2016; but again employees must be trained in this system before the December 1, 2013 deadline.

For those of you that are fabricators and erectors, you will be facing many challenges in complying with the 2012 HazCom—but with proper foresight and preparation you will be able to comply and make your facility and jobsite a safer place for your employees to work.

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