



# TRAINING REQUIREMENTS

## FOR THE REVISED HAZARD COMMUNICATION STANDARD

Compliance Deadline: December 1, 2013

JULY/AUG  
2013

The Occupational Safety and Health Administration (OSHA) is phasing in changes to the revised Hazard Communication Standard (HCS) (29 CFR 1910.1200) during a multiyear period (December 1, 2013–June 1, 2016.) While there are many components of the revised standard that will affect the professional pest management industry, this update will focus on addressing the training components employers are required to cover with their workers before December 1, 2013. OSHA believes this training, on labels and Safety Data Sheets (SDS), will ensure employees have the information they need to better protect themselves from chemical hazards in the workplace during the transition period.

This revision of the HCS, the first since 1994, was completed to align OSHA's HCS with The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The major changes from the previous HCS include a hazard classification system using defined criteria to evaluate health and physical hazards, as well as classify mixtures. Signers of the GHS believe global benchmarks will facilitate consistency in designation of hazards across manufactures and countries. Second, there are new labeling requirements for chemical manufacturers and importers that include a harmonized signal word, pictogram, and hazard statement for each hazard is required to be listed. In addition, precautionary statements must now be provided on all labeling. Finally, SDS now has a specified, consistent, 16-section format.

### **Pesticides and the Revised Hazard Communication Standard**

Pesticides will remain under the jurisdiction of EPA. Even though OSHA is moving forward to change the MSDS and all chemical labels, EPA is not requiring pesticide labels to make any changes to comply with GHS. This will lead to confusion because it is very likely the signal word on the OSHA regulated SDS and the signal word on the EPA regulated pesticide label will not match. For example, since OSHA's HCS does not use the signal word CAUTION, the SDS for all pesticides (labeled CAUTION) will display a signal word



of WARNING. The three sections below: 1) Label Elements, 2) Safety Data Sheets and 3) SDS Section 15 – Regulatory Information will further address how EPA plans to address the differences.

**Training Elements: Labels and Safety Data Sheets**

There are two main elements of OSHA training that are required to be completed by December 1, 2013. Each person dealing with chemicals must be verifiably trained on 1) label elements of non-pesticide chemicals and 2) the new SDS format applicable to both pesticides and non-pesticides.

The required training elements are in gray boxes below. To increase comprehension about how the new HCS labels and SDS interact with pesticides, additional notes are included below each required HazCom training element.

**Label Elements:**

Employees should be trained to understand the following NON-pesticide label elements.

*Manufacturer Information*

HCS	PESTICIDES
Requires supplier/manufacturer 1) Name, 2) Address and 3) Telephone Number	Requires supplier/manufacturer name and address. EPA also requires EPA Establishment Number (EPA Est. No.) to designate where the product was manufactured.

**Notes:** EPA encourages, but does not require a telephone contact number on pesticides.

*Product Identifier*

HCS	PESTICIDES
The product can be identified by the chemical name, code number or batch number.	Are required to display a name registered with the EPA.

**Notes:** For both pesticides and non-pesticides, the name on the label and the SDS must match.

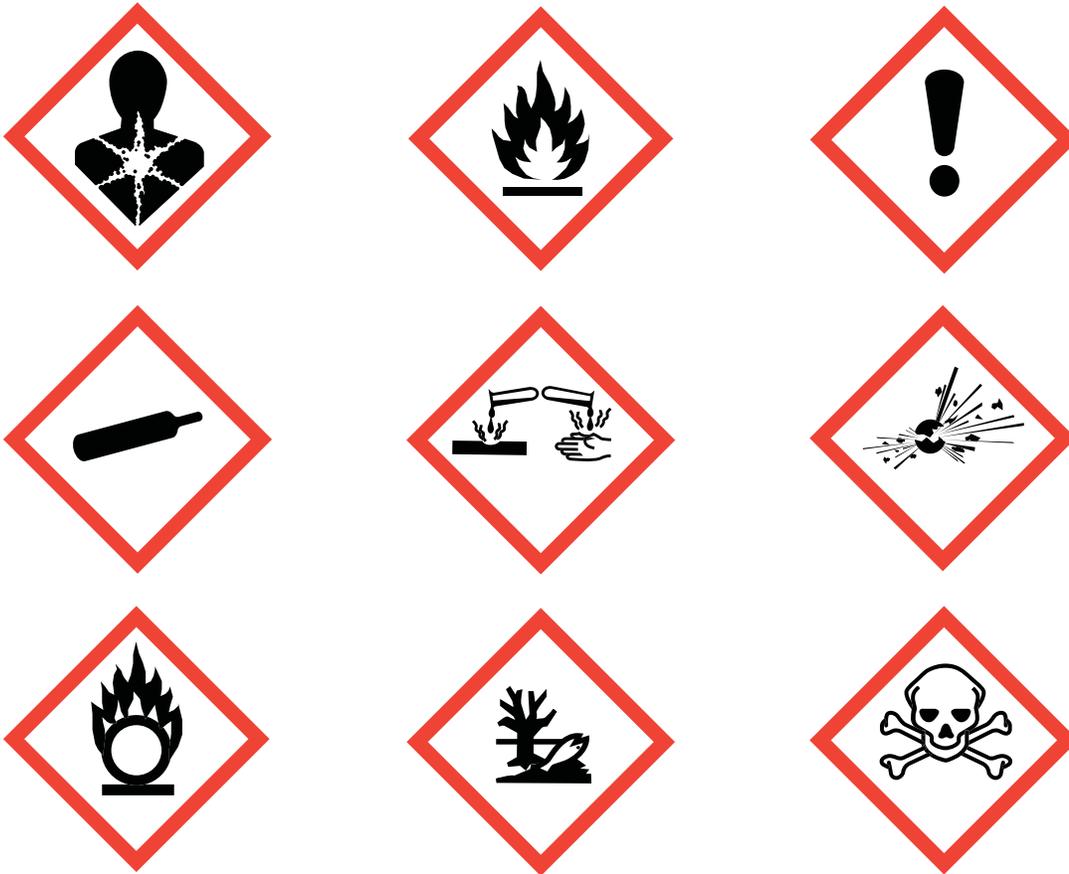
*Signal Words*

HCS	PESTICIDES
Signal words are used to indicate relative level of severity of the hazard. In the revised HCS, there are two signal words, “Danger” and “Warning.” Within a specific hazard class, “Danger” is used for the more severe hazards and “Warning” is used for less severe hazards.	Pesticide labels will continue to use the current signal words; “CAUTION” “WARNING” and “DANGER.” Unlike the HCS, acute toxicity studies are used to designate the formulation into one of four toxicity categories: I, II, III, or IV. Category IV products do not require a signal word. CAUTION is used for Category III, WARNING for II and DANGER for Category I.

**Notes:** Whether the product is a pesticide or falls under the HCS, there will only be one signal word on the label. For example, if one of the hazard or toxicity categories warrants a “WARNING” signal word and another warrants “Danger,” “Danger” will appear on the label. It is the more severe of the two signal words and is thus more protective of the user.



**HCS Hazard Pictograms and Corresponding Hazards**



**Figure 1.** HCS Pictograms and Associated Hazards. Each pictogram is required to be set in a red diamond and contain a hazard symbol in black.

Health Hazard	Flame	Exclamation Mark
<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>	<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>	<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>
Gas Cylinder	Corrosion	Exploding Bomb
<ul style="list-style-type: none"> <li>■ Gases under Pressure</li> </ul>	<ul style="list-style-type: none"> <li>■ Skin Corrosion/ burns</li> <li>■ Eye Damage</li> <li>■ Corrosive to Metals</li> </ul>	<ul style="list-style-type: none"> <li>■ Explosives</li> <li>■ Self-Reactives</li> <li>■ Organic Peroxides</li> </ul>
Flame over Circle	Environment (Non Mandatory)	Skull and Crossbones
<ul style="list-style-type: none"> <li>■ Oxidizers</li> </ul>	<ul style="list-style-type: none"> <li>■ Aquatic Toxicity</li> </ul>	<ul style="list-style-type: none"> <li>■ Acute Toxicity (fatal or toxic)</li> </ul>



## **2012 REVISED HAZARD COMMUNICATION STANDARD (HCS)**

### **A QUICK LOOK AT THE FACTS**

#### **When must training be completed?**

Before December 1, 2013

#### **Who needs to be trained?**

Workers who may be exposed to hazardous chemicals under normal conditions or in foreseeable emergencies. Workers, such as office workers who encounter hazardous chemicals only in non-routine, isolated instances do not require training. (This is the same as in the previous 1994 HazCom Standard)

#### **Why has the Hazard Communication Standard (HCS) been revised?**

To incorporate the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). This classification system will harmonize communication of hazards throughout the world.

#### **When did the 2012 revised HCS become effective?**

May 25, 2012.

#### **What remains the same in the new HCS?**

The 2012 HCS is a modification to the existing 1994 standard. According to OSHA, the parts of the standard that do not relate to the GHS (such as the basic framework, scope, and exemptions) remained largely unchanged.

#### **What has changed in the new HCS that affects PMPs?**

- Labels elements for NON-pesticide chemicals
- MSDS (now referred to as Safety Data Sheets, SDS) for pesticide and NON-pesticide chemicals

#### **What type of training must be completed and documented before December 1, 2013?**

- Training on the new label elements of non-pesticide labels
- Training on the new, standard, 16-section SDS format
- Training on what can be found in each section of the SDS
- How the new labels and the new SDS interact

#### **What happens if I don't complete the training before December 1, 2013?**

Your company will be considered in NON-compliance with the 2012 revised Hazard communication standard. This could lead to fines being levied by OSHA inspectors.

#### **Pesticides and the Revised HCS**

Pesticide labels are not changing to be compatible with the revised HCS. NPMA suggests pest management professionals should understand and be capable of explaining the differences between the SDS and pesticide labels to consumers. See the article and online resources for additional information.

#### **So, what is the best way to complete 2012 revised HCS training?**

NPMA online resources. Click on [www.npmapestworld.org](http://www.npmapestworld.org) for information on training opportunities for you and your employees.

*Some of the above information was excerpted from <http://www.osha.gov/html/faq-hazcom.html>*



*Pictogram*

HCS	PESTICIDES
Health, physical and environmental hazards are conveyed by nine pictograms in the GHS. OSHA designated eight of these pictograms for use under the HCS. The environmental pictogram is the exception, as OSHA does not have jurisdiction over this area.	Currently EPA uses two pictograms: a version of the skull and crossbones for the most severe categories and a flame symbol for total release foggers.

**Notes:** EPA may incorporate some of the GHS pictograms on pesticide labels.

*Hazard Statements*

HCS	PESTICIDES
Describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: "Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin." All of the applicable hazard statements must appear on the label. Thus, there may be multiple pictograms on a label. The hazard statements are specific to the hazard classification categories, and chemical users should always see the same statement for the same hazards no matter what the chemical is or who produces it.	EPA already incorporates many hazard statements into the precautionary statements.

**Notes:** According to EPA, to be consistent with GHS, EPA would need to adopt the GHS criteria and label elements for each hazard class and category the EPA already requires to be on the label. If this were to occur, it would lead to a major revision of all pesticide labels.

**SAMPLE LABEL**

<p><b>CODE</b> _____</p> <p><b>Product Name</b> _____</p>	}	<b>Product Identifier</b>	<p><b>Hazard Pictograms</b></p> 
<p><b>Company Name</b> _____</p> <p><b>Street Address</b> _____</p> <p><b>City</b> _____ <b>State</b> _____</p> <p><b>Postal Code</b> _____ <b>Country</b> _____</p> <p><b>Emergency Phone Number</b> _____</p>	}	<b>Supplier Identification</b>	<p><b>Signal Word</b></p> <p><b>Danger</b></p>
<p>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.</p> <p><b>In Case of Fire:</b> use dry chemical (BC) or Carbon Dioxide (CO<sub>2</sub>) fire extinguisher to extinguish.</p> <p><b>First Aid</b> If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>			<p><b>Hazard Statements</b></p> <p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>
<p><b>Precautionary Statements</b></p>			<p><b>Supplemental Information</b></p> <p><b>Directions for Use</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Fill weight: _____ Lot Number: _____</p> <p>Gross weight: _____ Fill Date: _____</p> <p>Expiration Date: _____</p>

OSHA 3492-02 2012



Precautionary Statements

HCS	PESTICIDES
Describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling. For example, a chemical presenting a specific target organ toxicity (repeated exposure) hazard would include the following on the label: “Do not breathe dust/fume/ gas/mist/ vapors/spray. Get medical advice/attention if you feel unwell. Dispose of contents/ container in accordance with local/regional/ national and international regulations.” Under the HCS there are four types of precautionary statements: <ul style="list-style-type: none"> <li>■ prevention (to minimize exposure);</li> <li>■ response (in case of accidental spillage or exposure emergency response, and first-aid);</li> <li>■ storage;</li> <li>■ disposal</li> </ul>	The precautionary statements are designed to provide the pesticide user with information regarding toxicity, irritation potential and sensitization hazards associated with the use of a pesticide. On pesticides, precautionary statements include child hazard warnings, engineering control statements, environmental hazards, first aid, hazards to humans and domestic animals, personal protective equipment (PPE), physical or chemical hazards, signal words and user safety requirements.

Notes: For pesticides, storage and disposal statements are included in the “Direction for Use” section. To be consistent with GHS, as mentioned above, EPA would need to adopt the GHS criteria and label elements for each hazard class and category to fully implement GHS for pesticide precautionary statements.

Safety Data Sheets (SDS) Elements:

The new SDS may seem familiar. However, currently you are probably more familiar with a Material Safety Data Sheet, commonly referred to as an MSDS. The MSDS will be replaced by the SDS under the HCS. Per the HCS, the SDS is required to follow the 16-section format below.

SECTION 1—Identification

Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use (directions) and restrictions on use.

SECTION 2—Hazard(s) Identification

The HCS signal word and pictograms will be listed in this section. Also, all hazards and precautionary statements applicable under the HCS will be listed here.

For PESTICIDES, all precautionary statements applicable under FIFRA, as enforced by EPA, will be listed in Section 15. This may include a signal word and precautionary statements that are different from the one listed in Section 2 of the SDS.

SECTION 3—Composition/Information on Ingredients

Includes information on chemical ingredients. May also included trade secret claims.

SECTION 4—First-aid measures

Includes important symptoms/ effects, acute, delayed. Also includes required treatment.

SECTION 5—Fire-fighting Measures

Lists suitable extinguishing techniques, equipment and chemical hazards from fire.

SECTION 6—Accidental Release Measures

Lists emergency procedures; protective equipment; proper methods of containment and cleanup for spills and accidental releases.



### **SECTION 7—Handling and Storage**

Lists precautions for safe handling and storage. This section will include incompatibilities for each product.

### **SECTION 8—Exposure Controls/Personal Protection**

Lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls and all required 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 as well as numerical measures of toxicity.

### **SECTION 12—Ecological Information\***

Any additional ecological information will be included in this section.

### **SECTION 13—Disposal Considerations\***

Any additional disposal considerations will be included in section 13.

### **SECTION 14—Transport Information\***

Transport information will be included in this section.

### **SECTION 15—Regulatory Information\***

Any additional regulatory information will be included in Section 15. According to EPA's Pesticide Registration Notice 2012-1, MSDS as Labeling, specifically for pesticide products employees can expect to see the following in Section 15 of the new SDS format.

EPA has stated this is the section where additional information for pesticides is REQUIRED to be located. Any discrepancies with the container label will be addressed in this section. See below, "SDS SECTION 15—SPECIAL INFORMATION FOR PESTICIDES," for more specific information about how pesticides will be communicated on the SDS.

### **SECTION 16—Other Information**

Includes the date of preparation or last revision among other items.

*\*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15.*

### **SDS SECTION 15—SPECIAL INFORMATION FOR PESTICIDES**

For pesticides, expect to see the following in Section 15 in the new SDS format.

*"This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use."*

EPA has instructed the manufacturers/ suppliers to insert the required FIFRA label hazard information in this section. If the pesticide label signal word is different from the signal word on the SDS, this is the area where the difference will be explained.



### **When Will These Changes be Available?**

Even though OSHA is mandating training on the new elements be completed by December 1, 2013, manufacturers are not required to be in compliance until June 1, 2015. It will be some time before the new requirements are consistently seen on a pesticide SDS and the SDS/label for other chemicals.

### **Next Steps and Additional Training Opportunities**

In addition to this library update, NPMA will be presenting a webinar and will make online training resources available to assist in compliance with the December 1, 2013 deadline. Please reference [www.npmapestworld.org](http://www.npmapestworld.org) to find out more about these additional training opportunities.

### **Additional Resources and References:**

Additional information for employers or those designing training resources can be found at the OSHA and EPA websites.

#### *OSHA General Information:*

Home page for Revised Hazard Communication Standard <http://www.osha.gov/dsg/hazcom/index.html>  
OSHA factsheet on December 1, 2013 training requirements <http://www.osha.gov/Publications/OSHA3642.pdf>

#### *NON-pesticide Labels:*

OSHA BRIEF Hazard Communication Standard (NON-pesticide)—Labels and Pictograms <http://www.osha.gov/Publications/OSHA3636.pdf>  
OSHA Quickcard for Non-pesticide labels <http://www.osha.gov/Publications/OSHA3492QuickCardLabel.pdf>

#### *Safety Data Sheets (SDS):*

OSHA BRIEF: Safety Data Sheets <http://www.osha.gov/Publications/OSHA3514.html>  
OSHA QuickCard: Safety Data Sheets (English and Spanish) <http://www.osha.gov/dsg/hazcom/SDSItems.html>

#### *Pesticides and the Revised Hazard Communication Standard:*

Pesticide Registration Notice 2012-1, Material Safety Data Sheets as Pesticide Labeling. This is EPA Guidance on how to incorporate GHS into pesticide labeling. [http://www.epa.gov/PR\\_Notices/pr2012-1.pdf](http://www.epa.gov/PR_Notices/pr2012-1.pdf)

