

# Informational Booklet



GHS

## What Is OSHA's **G**lobal **H**armonizing **S**ystem?

Presented by



This booklet, like all safety information is NOT designed to cover EVERY POSSIBLE point listed within OSHA's new GHS policy. Every employer is responsible to make themselves available to all of the points pertaining to OSHA's Standards addressing GHS policy. This booklet is designed to give the reader a broad sweep of the policy.

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## Introduction – What is GHS

Hopefully, you've heard by now that OSHA has revised its **Hazard Communication Standard (HCS)** to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). GHS, developed by the United Nations, is a global approach to classifying chemical hazards and providing information about those hazards via standardized labels and safety data sheets.

On a teleconference call, March 20, 2012, OSHA Director Dr. David Michaels announced the revision to the Hazard Communication Standard (HCS) as well as related compliance deadlines affecting chemical manufacturers, distributors and **employers**.

The revised HCS, which OSHA is calling HazCom 2012, is expected to affect every U.S. workplace with exposure to hazardous chemicals, ultimately covering over 5 million facilities and over 40 million workers. **The first compliance date employers should be aware of is December 1, 2013, which is the date by which employees must be trained on the new label and SDS formats.** OSHA is calling this standard the "Right to understand".

### Why A New Program?

Many countries already have regulatory systems in place for these types of requirements. These systems may be similar in content and approach, but their differences are significant enough to require multiple classifications, labels and safety data sheets for the same product when marketed in different countries or even in the same country when parts of the life cycle are covered by different regulatory authorities. This leads to inconsistent protection for those potentially exposed to the chemicals, as well as creating extensive regulatory burdens on companies producing chemicals. For example, in the United States (U.S.) there are requirements for classification and labeling of chemicals for the Consumer Product Safety Commission, the Department of Transportation, the Environmental Protection Agency, and the Occupational Safety and Health Administration.

GHS establishes agreed hazard classification and communication provisions with explanatory information on how to apply the system. The elements in the GHS supply a mechanism to meet the basic requirement of any hazard communication system, which is to decide if the chemical product produced and/or supplied is hazardous and to prepare a label and/or Safety Data Sheet as appropriate. Regulatory authorities in countries adopting the GHS will thus take the agreed criteria and provisions, and implement them through their own regulatory process and procedures rather than simply incorporating the text of the GHS into their national requirements. The GHS Document thus provides countries with the regulatory building blocks to develop or modify existing national programs that address classification of hazards and transmittal of information about those hazards and associated protective measures. This helps to ensure the safe use of chemicals as they move through the product life cycle from "cradle to grave."

According to OSHA, the production and use of chemicals is fundamental to all

economies. The global chemical business is more than a \$1.7 trillion per year enterprise. In the U.S., chemicals are more than a \$450 billion business and exports are greater than \$80 billion per year.

Chemicals directly or indirectly affect our lives and are essential to our food, our health, and our lifestyle. The widespread use of chemicals has resulted in the development of sector-specific regulations (transport, production, workplace, and agriculture, trade, and consumer products). Having readily available information on the hazardous properties of chemicals, and recommended control measures, allows the production, transport, use and disposal of chemicals to be managed safely. Thus, human health and the environment are protected.

The sound management of chemicals should include systems through which chemical hazards are identified and communicated to all who are potentially exposed. These groups include workers, consumers, emergency responders and the public. It is important to know what chemicals are present and/or used their hazards to human health and the environment, and the means to control them. A number of classification and labeling systems, each addressing specific use patterns and groups of chemicals, exist at the national, regional and international levels. The existing hazard classification and labeling systems address potential exposure to chemicals in all the types of use settings listed above.

While the existing laws and regulations are similar, they are different enough to require multiple labels for the same product both within the U.S. and in international trade and to require multiple safety data sheets for the same product in international trade. Several U.S. regulatory agencies and various countries have different requirements for hazard definitions as well as for information to be included on labels or material safety data sheets.

### **So What Exactly Is Globally Harmonized System?**

GHS or Globally Harmonized System of classification and labeling of chemicals is a system, which is set to replace the different standards of labeling and classification that is being used in different countries across the globe. GHS involves the defining and classification of hazards in chemicals and communicating the information on hazards through labels and SDS i.e. safety data sheets. It covers all hazardous chemicals including the products, mixtures, preparations, substances and so on.  
Understanding the hazard communication standard

The best way to understand the changes that will come once OSHA revises its hazardous communication standard is to understand the standard as it is today. There are some major changes that are going to happen, but a lot of it is going to stay the same, so it's important that we have this as part of the foundation.

OSHA's hazard communication standard (HCS) currently covers over 880,000 chemicals. Its purpose is to ensure hazards of all chemicals produced or imported are evaluated and details regarding their hazards are transmitted to employers and employees. It is designed to ensure requirements are consistent nationwide.

The five main requirements of HCS are:

- Written plan
- Chemical inventory
- Labels and warnings
- Training
- Material safety data sheets (MSDSs)

So, what's the problem if we've had HCS for decades? According to industry experts, the problem is there actually are still a lot of confusion and health hazards – based upon the fact that regulations vary pretty widely internationally. The USA has its own HCS, Canada has its own standard and the European Union has its own standard. Because this is a global economy and chemicals are moving across lines all the time, we have this situation where multiple labels for MSDSs for the same product are often required. End-users often see different data on material safety data sheets for what are essentially the same product and it makes for an unsafe environment. It also makes international trade a little more difficult.

### **Why is GHS needed?**

Because of so many different Hazard Communication Systems in place, GHS is the critical factor in adapting an approach that provides better worker protection because of the harmonization of all systems into one rather than the individual approaches. With the harmonizing of the safety data sheets and the labels, users of these chemicals will get more specific and consistent information about the chemicals they are using to address workplace protection.

This is also beneficial since no country can adequately identify and regulate every hazardous chemical. GHS is a way for different countries to put together their best system and make it available to others. The globally harmonized system should reduce the incidence of different labels, warnings, and differing information for the same product.

It should also result in better trade. Currently, working on a global scale is burdensome for smaller companies, making international competition difficult due to the cost of compliance with multiple regulations across countries.

### **So When Should A Company Start, Sooner or Later?**

Once you take a step back and look at the time frame (see page 8 OSHA's Timelines), you will realize it is better to start now because OSHA's dead lines although in a distant will begin to approach quickly as 2012 closes. For most companies however, those deadlines are fast approaching, especially since change happens slowly in many organizations. Chemical manufacturers in particular are encouraged to begin the reclassification process and authoring process. At a minimum, businesses under the jurisdiction of the HCS should make sure they have a point person for managing the transition to GHS.

Because OSHA's adoption of GHS has taken a long time, it has given Employers Resource the time to do our do diligence in research and gather the necessary tools and training materials that will give those clients who want to take advantage the opportunity and get a head start.

### **What are the benefits of GHS?**

The basic goal of hazard communication is to ensure that employers, employees and the public are provided with adequate, practical, reliable and comprehensible information on the hazards of chemicals, so that they can take effective preventive and protective measure for their health and safety. Thus, implementation of effective hazard communication provides that information benefiting governments, companies, workers, and members of the public.

## **Eight Steps to Prepare For GHS**

With the hazardous communication standard (HCS) already a regular fixture on OSHA's most frequently cited standards list, it's more important now than ever before to understand how the new globally harmonized system (GHS) initiative affects your company's Hazard Communication Standard.

OSHA's goal in revising the hazard communication standard is to align what is already in place with GHS; so it is critical to realize HCS isn't going anywhere. Once OSHA aligns HCS with GHS we will still have the hazard communication standard, and it's going to maintain most of that framework. However, once we do adopt GHS, it should enhance the protection.

There will be some things that prior to the alignment were left up to the manufacturer in terms of the specific language it uses when classifying a chemical for the specific way in which it lays out the formats and safety data sheets. Some of those things will be standardized after the HCS is aligned with GHS.

The new safety data sheets (SDS) include a 16-part format, which is essentially the ANSI standard with sections 2 and 3 switched. Some parts won't be mandatory, but everything on the new sheets and new labels must be consistent. So, how will this affect you? The proposed GHS changes affect labels and safety data sheets; your entire library of MSDSs will likely need to be completely overhauled within a short time frame. What can you do to prepare?

### **Steps for employers to prepare for new safety data sheets under GHS**

It's important to remember that your HCS requirements will not be reduced; they will simply be modified to support the new globally harmonized system. Though it is not a total re-write of the regulation, there are still a lot of changes coming your way. Pretty much everyone who uses hazardous chemicals has some responsibility...but some more than others. Chemical manufacturers have some work to do around re-authoring MSDSs, labels and warnings to make them GHS compliant. Resellers, distributors, and importers need to get the new MSDSs and labels and distribute them to customers. Employers have a list too. Here are some steps your organization can take now to prepare for the transition to GHS:

1. Have an HCS plan. Maintain a checklist of key plan components and review it annually
2. Inventory your on-site chemicals and make sure you have a complete library of MSDSs
3. Prepare yourself for the eventual SDS documentation. If you're still using paper, consider transitioning to electronic system
4. Make sure your secondary labeling system is GHS compliant
5. Start developing a training plan for your employees now. Have a plan and make sure employees are ready to read GHS compliant SDSs and labels
6. Stay current on OSHA – including federal, state and local – requirements. Keep an eye on GHS, looking out for key dates that will have an impact on your plan

7. Request GHS-compliant SDSs from your chemical vendors. Talk to your chemical suppliers and ask about their plans to transition to GHS. Ensure your staff is on the lookout for SDSs with new shipments
8. Stay SARA compliant. Update local and state emergency response agencies when new chemical hazard information becomes available. (SARA is the Superfund Amendments and Reauthorization Act, which requires facilities who are subject to OSHA's hazardous chemical requirements to submit MSDSs to local and state authorities along with a hazardous chemical inventory form.)

By following these steps, you'll be well on your way to preparing for the new requirements.

*\* OSHA has adopted amendments to the HAZCOM rule effective May 25, 2012 that include new Globally Harmonized System, or GHS, requirements for the classification of chemicals, new chemical labels, and SDSs. The GHS amendments will be phased-in over a 4-year period.*

## OSHA's Timelines for Implementing GHS

OSHA's changes to the hazard communication standard, or worker right-to-know rule, went into effect May 25, 2012. The revisions align U.S. worker right-to-know requirements with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals, or **GHS**. The changes are designed to reduce confusion about chemical hazards in the workplace, and improve safety training and worker understanding of chemical hazards in the workplace through improved chemical labeling and the new 16-section safety data sheets, or SDSs. The SDSs will replace the existing material safety data sheets.

The changes will affect over 5 million employers and 40 million workers.

OSHA will allow employers a 4-year transition period to comply with all of the new GHS requirements in the hazard communication (HazCom) rule.

### 4-Year GHS Compliance Transition Period

<p><b>May 25, 2012 to November 30, 2013</b> All employers that use, handle, store chemicals</p>	<p>Train employees how to read and interpret chemical labels and (material) safety data sheets in compliance with either:</p> <ul style="list-style-type: none"> <li>• The pre-GHS HazCom standard for labels and MSDSs; or</li> <li>• The revised HazCom standard with GHS for new-style labels and SDSs; or</li> <li>• Both old and new requirements at the same time</li> </ul>
<p><b>December 1, 2013</b> All employers that use, handle, store chemicals</p>	<p>Train employees about the new GHS-compliant chemical labels and SDSs.</p>
<p><b>June 1, 2015</b> Chemical manufacturers, importers, distributors</p>	<p>Comply with all the requirements of the GHS rule, including classify chemical hazards and prepare new labels and SDSs. Distributors have until December 1, 2015 to comply with the shipping requirements for GHS-compliant labels.</p>
<p><b>December 1, 2015</b> All employers that use, handle, store chemicals</p>	<p>All shipments of chemical containers must include the new GHS-compliant label (signal word, pictogram, hazard statement, and precautionary statement).</p>
<p><b>June 1, 2016</b> All employers that use, handle, store chemicals</p>	<p>Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.</p>

## Transition Period for Signage and Labeling of Specific Toxic Substances

<b>December 1, 2013</b> All employers that use or handle specific toxic substances	Affix GHS-compliant labels to containers of protective clothing, equipment, and waste debris contaminated with specific toxic substances such as asbestos, chromium (VI), lead, cadmium, benzene, and listed carcinogens.
<b>June 1, 2016</b> All employers that use or handle specific toxic substances	All employers that use or handle specific toxic substances

### Phase-In Period for the GHS Chemical Label and SDS

**Employee training:** Many employers will go through a phase-in period where both old and new-style chemical labels, MSDSs, and SDSs will be present in the workplace. Until December 1, 2013, OSHA will allow employers the choice to train employees under the pre-GHS HazCom requirements, or the HazCom with GHS amendments, or both.

**Start training ASAP:** OSHA has also stated in the preamble to the GHS amendments that “the training needs to be completed by the time employees begin to see the new labels and SDS rather than waiting until after the transition has been completed.”

Therefore, employers should review all chemical labels, MSDSs, and new SDSs shipped to them. Once they start to receive the new GHS-compliant labels and SDSs, it would be prudent to immediately start training employees how to read and interpret them. For many employers, the GHS-compliant training should be integrated with training for the older labels and MSDSs. Once employers start to receive the new GHS-compliant labels and SDSs, it would be prudent to immediately start training employees how to read and interpret them.

**SDS and MSDS File Management:** During the phase-in period, OSHA will not require employers to maintain two sets of MSDSs and SDSs for compliance purposes.

## Additional Information

By September 22, 2012, states with OSHA-approved state safety and health regulatory programs must add OSHA's GHS amendments to their hazard communication standards. 21 states, Puerto Rico, and the U.S. Virgin Islands have OSHA-approved programs that regulate private (private businesses and nonprofit organizations) and public (state and local governments) sector workplaces. States may adopt the revisions earlier, and some states may adopt their own revisions that are stricter than federal requirements.

### Regulatory Analysis: HAZCOM with GHS Amendments

Several sections of HazCom standard are not significantly affected by the GHS amendments and are therefore the same as the HazCom rule in effect before the GHS amendments (e.g., trade secrets, written Hazard Communication Program).

The following topics within HazCom contain the most significant GHS amendments:

- Hazard classification replaces the hazard determination
- Chemical label content and design
- Safety data sheet (SDS) replaces the material safety data sheet (MSDS)
- Employee training that covers new GHS-compliant labels and SDSs
- Written hazard communication plan

HazCom applies to almost every organization and employer covered by OSHA regulations. It applies to manufacturers, importers, and distributors of hazardous chemicals, and to employers with employees exposed or potentially exposed to hazardous chemicals in general industry workplaces, shipyards, marine terminals, longshore operations, and construction sites, and certain agricultural workplaces.

### Important Points

#### Who Are Covered By The Policy?

##### ➤ *Chemical Manufacturers and Importers*

HazCom requires chemical manufacturers and importers to evaluate and classify the hazardous chemicals that they produce or import in terms of their physical and health hazards, as well as establish hazard communication programs for their workers.

##### ➤ *Chemical Distributors*

Distributors of hazardous chemical products must transmit the required information about hazards to employers that purchase or receive such products from them.

##### ➤ *Chemical Users*

Employers that store and use chemicals but do not produce or import them do not have to comply with the requirement to evaluate and determine the hazards of those chemicals; they will receive that information from the manufacturer or importer. "Use" in the context of HazCom means to package, handle, react (such as introduce into a process), or transfer.

##### ➤ *Facilities that Handle Sealed Containers*

Employers in workplaces where employees handle only hazardous chemicals in

sealed containers, such as batteries, or sealed bottle household chemicals, being stored in warehouses. If these chemicals are not used (seal broken) employers are not required to maintain a specific written hazard communication program for these chemicals, they are however, required to still follow HazCom requirements for container or package labeling, availability of SDSs, and must provide information and training to employees concerning chemical substances.

### Other Important Points

#### ➤ *Labels on Shipped Containers*

Each container of a hazardous chemical that is shipped must be properly labeled, tagged, or marked.

#### ➤ *Department of Transportation (DOT) Labels*

Chemical manufacturers, importers, and distributors must ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in a manner that does not conflict with the requirements of the Hazardous Materials Transportation Act (49 CFR 173), administered by the U.S. DOT.

#### ➤ *Labels in English:* The labels or other forms of warning must be legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers with employees who speak other languages may add the label information in their language, as long as the information is presented in English as well.

#### ➤ *Hazardous chemical containers must include:*

- The label shipped with the chemical container; *or*
- A product identifier and combination of words, pictures, or symbols that provide at least general information regarding the hazards of the chemicals and provide employees with the specific information about the physical and health hazards of the chemical.

#### ➤ *Outdated Labels--Procedures to Correct*

If an employer becomes aware of any significant new information about the hazards of a chemical, the employer must revise the labels for the chemical within 6 months of becoming aware of the new information. The employer must also ensure that labels on containers of hazardous chemicals contain the new information. If the chemical is not currently produced or imported, the employer must add the information to the label before the chemical is introduced into the workplace again.

#### ➤ *SDS (Safety Data Sheets)*

Manufacturers, importers, or distributors must provide an SDS to their customers for each hazardous chemical at the time of the first shipment of the chemical.

The SDS is a 16-section document prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, control measures, and other information about the chemical.

#### ➤ *Written Hazard Communication Program*

The written hazard communication program is the blueprint for HazCom—and it is

the first thing an OSHA compliance officer or inspector will ask to see. It does not have to be long or spell out your program in detail, but it must be well thought out, clear, and comprehensive, at least outlining all the parts of the program you are implementing. The written program should be available to all employees.

➤ *Hazardous Chemical List*

Employers must prepare a list of all hazardous chemicals known to be present in the workplace as part of the written hazard communication program using a product identifier that is referenced on the appropriate SDS. If an SDS is missing, the employer must get it from the manufacturer, distributor, or other source. The list will eventually serve as an inventory of every substance for which an SDS is required.

➤ *Multiemployer Worksites*

A multiemployer worksite exists any time employees of different employers are on the same site (e.g., a cleaning crew comes into your workplace to do its job or at a construction site). Also, any employer that hires the services of an outside contractor or vendor is responsible for ensuring compliance by the contractor with the requirements of HazCom if the contractor's employees may be exposed to chemical hazards while working at the employer's facility.

The outside contractor or vendor must be informed by the primary employer of the following:

Any chemical hazards that another employer or contractor and his or her employees may encounter during their work at the employer's facility

- How SDSs will be made available for each hazardous chemical their employees may be exposed to while working
- Precautionary protective measures that will need to be taken under the workplace's normal conditions and in foreseeable emergencies, and be responsible for making sure that the contractor informs and teaches employees about the hazards of your workplace
- Hazards known to be present
- The type of hazardous substance labeling used in the work area

➤ *Contractor-supplied substances*

Each contractor bringing chemicals on-site must provide the primary employer with the appropriate hazard information for these substances, including SDSs, labels, and precautionary measures to be taken when working with or around such substances.

➤ *Training language guideline*

According to OSHA guidelines, if employees receive job instructions in a language other than English, the training and information conveyed under HazCom should also be presented in that language.