

# Jay Industries

## Hazard Communication and GHS

### Frequently Asked Questions about the Revised GHS HazCom Standard

#### What's all this about a new HazCom rule?

On March 26, 2012, OSHA's final revised Hazard Communication Standard (HCS) was published in the Federal Register. The HCS is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This will improve the quality and consistency of hazard information in the workplace, making it safer for workers by providing easily understandable information on appropriate handling and safe use of hazardous chemicals, as well as harmonizing U.S. hazard communication rules with those used internationally.

OSHA estimates that over 5 million workplaces in the United States will be affected by the revised HCS, and in those workplaces up to 43 million employees could be exposed to hazardous chemicals.

OSHA estimates that the revised HCS will result in the prevention of 43 fatalities and 585 injuries and illnesses annually. The monetized value of this reduction in occupational risks is an estimated \$250 million a year on an annualized basis.

#### What are the major changes to the Hazard Communication Standard?

The three major areas of change are in hazard classification, labels, and safety data sheets (SDS).

- Hazard classification: The definitions of hazard have been changed to provide specific criteria for classification of health and physical hazards, as well as classification of mixtures. These specific criteria will help to ensure that evaluations of hazardous effects are consistent across manufacturers, and that labels and safety data sheets are more accurate as a result.
- Labels: Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.
- Safety Data Sheets: SDSs will now have a specified 16-section format.

#### What is the Globally Harmonized System?

The Globally Harmonized System (GHS) is an international approach to hazard communication, providing agreed criteria for the classification of chemical hazards, and a standardized approach to label elements and safety data sheets. The GHS provides harmonized classification criteria for health, physical, and environmental hazards of chemicals. OSHA has not included the environmental hazards in the HCS.

## How will chemical hazard evaluation change under the revised Hazard Communication Standard?

The revised HCS has specific criteria for each health and physical hazard, along with detailed instructions for hazard evaluation and determinations for classifying chemical substances and mixtures. It also establishes both hazard classes and hazard categories—for most of the effects; the classes are divided into categories that reflect the relative severity of the effect. Chemical manufacturers and importers are responsible for classifying the hazards of the chemicals they manufacture or import.

## What is the phase-in period in the revised Hazard Communication Standard?

- **December 1, 2013** — Train employees on the new label elements and safety data sheet (SDS) format.
- **June 1, 2015** — Compliance with all modified provisions of the final rule, except:
- **December 1, 2015** — Distributors shall not ship containers of hazardous materials labeled by the chemical manufacturer or importer unless it carries the appropriate HCS label.
- **June 1, 2016** — Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.

During the transition period, employers may comply with the existing standard, the revised standard, or both.

## How has OSHA addressed pyrophoric gases, simple asphyxiants, and combustible dust?

OSHA added definitions for pyrophoric gases, simple asphyxiants and combustible dust to the definition of "hazardous chemical":

- **Pyrophoric gases** — OSHA has retained the existing definition for pyrophoric gases, and these gases must be addressed both on container labels and SDSs.
- **Simple asphyxiants** — Simple asphyxiants must be labeled where appropriate, and be addressed on the SDS. OSHA has provided label elements for simple asphyxiants which include the signal word "warning" and the hazard statement "may displace oxygen and cause rapid suffocation."
- **Combustible dust** — OSHA has not provided a definition for combustible dust to the final HCS given ongoing activities in the specific rulemaking; however, guidance is being provided through existing documents, including the Combustible Dust National Emphasis Program Directive CPL 03-00-008, which includes an operative definition, as well as provides information about current responsibilities in this area.

## Will in-house labeling system alternatives be permitted?

Yes. Employers may choose to label workplace containers either with the same label that would be on shipped containers for the chemical under the revised rule, or with label alternatives that meet the requirements for the standard. Alternative labeling systems such as the National Fire Protection Association (NFPA) 704 Hazard Rating and the Hazardous Material Information System (HMIS) are permitted for workplace containers; however, the information supplied must be consistent with the revised HCS. For example, hazard classifications must be revised as necessary to conform to the final rule, and the other information provided must be revised accordingly to ensure the appropriate message is conveyed. Moreover, since these alternative labels would, at a minimum, only provide the product identifier and "general" information regarding the hazards of the chemicals, the employer

must also make "specific" information regarding the physical and health hazards of the chemical immediately available to employees through other means under the hazard communication program.

### Who is covered by HazCom?

OSHA's HazCom standard applies to general industry, shipyard, marine terminals, longshoring, and construction employment and covers chemical manufacturers, importers, employers, and employees exposed to chemical hazards. Basically, any employer with one employee and one hazardous chemical is covered.

Also, the U.S. Department of Labor's Mine Safety and Health Administration (MSHA) recently issued guidance to the mining industry to clarify that mine operators who meet OSHA's HazCom standard will be in compliance with MSHA's hazard communication standard.

There are only two types of work operations where coverage of the rule is limited (but not totally eliminated). These are laboratories and operations where chemicals are only handled in sealed containers (e.g., a warehouse). The limited provisions for these workplaces can be found in paragraph (b). Basically, employers having these types of work operations need only keep labels on containers as they are received, maintain material safety data sheets that are received and give employees access to them, and provide information and training for employees. Employers do not have to have written hazard communication programs and lists of chemicals for these types of operations.

### Why is a written Hazard Communication Program necessary?

A written hazard communication program helps employers to inform and train their employees properly and to design and put in place employee protection programs. It also provides necessary hazard information to employees, so they can participate in, and support, the protective measures in place at their workplaces.

The written HazCom program must include information on container labeling, collection and availability of safety data sheets, and the employee training program. It also must contain a list of the hazardous chemicals, the means the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals in unlabeled pipes.

### Does the HazCom standard apply to office settings?

Office workers who encounter hazardous chemicals only in isolated instances are not covered by the rule. OSHA considers most office products (such as pens, pencils, adhesive tape) to be exempt under the provisions of the rule, either as articles or as consumer products. For example, OSHA has previously stated that intermittent or occasional use of a copying machine does not result in coverage under the rule. However, if an employee handles the chemicals to service the machine, or operates it for long periods of time, then the program would have to be applied.

## Which particular substances are exempt from the Hazard Communication Standard?

A few blanket exemptions for particular substances can be found at 1910.1200(b)(6)). These exemptions include:

- Hazardous waste
- CERCLA hazardous substances (those listed at EPA 40 CFR 302.4) within a remedial or removal action
- Tobacco or tobacco products
- Wood or wood products under certain conditions
- Articles (an item whose use is dependent on its shape or design and does not release more than trace amounts of chemical, as defined at 1910.1200(c))
- Food or alcoholic beverages under certain conditions
- Any drug under certain conditions
- Cosmetics under certain conditions
- Any consumer product used as intended for the same duration and frequency that a consumer would use it
- Nuisance particles
- Ionizing and nonionizing radiation
- Biological hazards

## Labeling

### How will labels change under the revised Hazard Communication Standard?

Under the revised HCS, once the hazard classification is completed, the standard specifies what information is to be provided for each hazard class and category. Labels will require the following elements:

- **Pictogram:** a symbol on a white background within a red diamond. There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS. Workplace labels may use a black border instead of red.
- **Signal words:** a single word on the label used to indicate the relative level of severity of a hazard and alert the reader to a potential hazard. The signal words used are "Danger" for the more severe hazards, while "Warning" is used for less severe hazards.
- **Hazard Statement:** a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. (Example: Highly flammable liquid and vapor.)
- **Precautionary Statement:** a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical. This may also include proper storage or handling of a hazardous chemical, and first aid instructions.

Chemical manufacturers, importers, and distributors must label containers of hazardous chemicals with the identity of the chemical, appropriate hazard warnings, and the name and address of the manufacturer or other responsible party.

### Will existing containers of chemicals need to be relabeled with the current GHS based labeling requirements?

OSHA will require that all containers in workplaces be labeled in accordance with the revised standard by June 1, 2016. Any containers shipped after June 1, 2015 from a chemical manufacturer

or importer will have a new GHS-style label. Distributors have an additional six months, until Dec. 1, 2015, to ensure that all shipped containers are properly labeled.

Employers then have until June 1, 2016, to comply with the labeling requirements, update their HazCom written plans; and provide any additional employee training for newly identified physical or health hazards.

In the final rule OSHA states: "The phase-in period for the revisions to the HCS provides adequate time for firms to deplete products in inventory that are not labeled with GHS-compliant labels and to replace workplace containers or signs/permanent labels (such as regulated area signs) in the course of the normal cycle for wear-and-tear replacement."

### Does OSHA require portable containers to be labeled?

OSHA did not modify its previous exemption under the Hazard Communication Standard with regard to labeling of portable containers. Where hazardous substances are transferred from a labeled container into a portable container, used within a work shift, and under the control of the employee who performs the transfer, no labels are required on the portable container. However, if the chemical transferred to a portable container is not used within a work shift and under the control of the employee who performs the transfer, then labeling is required.

### Will GHS pictograms and DOT labels conflict with each other?

No. The Department of Transportation (DOT) aligned with the GHS physical hazard criteria in 2008 in order to classify hazards for toxic materials and flammable liquids during the transport of hazardous chemicals. The elements of the GHS which have been incorporated within Hazardous Materials Regulations (HMR; 49 CFR Parts 100-180) have been adopted by OSHA as well, so they are using the same criteria for physical hazards.

### How must hazardous chemicals in pipes be labeled?

Employers are not required to label pipes or piping systems.

### Safety Data Sheets (SDS)

#### What chemicals do I need to have an SDS for?

Employers must have a GHS-style, 16 section SDS for each chemical which is considered to be a **health or physical hazard** as those terms are defined in the standard, **except** for those products specifically exempted under the hazcom regulation at 1910.1200(b)(6).

#### What is a health hazard?

OSHA defines "health hazard" as "a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard."

## What is a physical hazard?

OSHA defines a "physical hazard" as "a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas."

## Do I need to have an SDS for commercial products like "Windex?"

You are not required to have SDSs for household consumer products when the products are used in the workplace in the same manner that a consumer would use them, i.e.; where the duration and frequency of use (and therefore exposure) is not greater than what the typical consumer would experience.

This exemption is based, however, not upon the chemical manufacturer's intended use of his product, but upon how it actually is used in the workplace. Employees who are required to work with hazardous chemicals in a manner that result in a duration and frequency of exposure greater than what a normal consumer would experience have a right to know about the properties of those hazardous chemicals.

## Do I need to have an SDS for a non-hazardous chemical?

Non-hazardous chemicals are not covered by HazCom; therefore, SDSs are not required for those chemicals. As OSHA does not require nor encourage employers to maintain SDSs for non-hazardous chemicals, an employer is free to discard SDSs for non-hazardous chemicals.

## Can SDSs be kept on a computer to meet the accessibility requirements of HazCom?

OSHA says in 1910.1200(g)(8) that it is permissible to provide access to SDSs from an electronic work station in the employee's work area provided the employee knows how to access the SDSs. OSHA further says in 1910.1200(g)(9) that where employees must travel between workplaces during a work shift, i.e., their work is carried out at more than one geographical location, the safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

## Training

### What training requirements are included in the revision?

OSHA requires that employee HazCom training include at least the:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
- Physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area;
- Measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and

- Details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.

### Which employees must be trained?

OSHA says you must train "employees" which are defined in 1910.1200 as "a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered."

"Exposure" or "exposed" under the rule means that an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact, or absorption) and includes potential (e.g., accidental or possible) exposure.

Normal operating conditions are those which employees encounter in performing their job duties in their assigned work areas.

Workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered. For instance, if a receptionist or sales person occasionally delivers a phone message to an area where chemicals are used, he or she would not be covered.

But if workers routinely bring production or sales paperwork to that area, or if they deliver or pick up sealed boxes of chemicals, they have to be trained. If you are not sure if certain employees are "routinely exposed," include them in the training. It is better to train too many people than to miss some and risk an OSHA fine.

### What training must be provided to employees?

Training on label elements must include information on the type of information the employee would expect to see on the new labels, including the:

- Product identifier;
- Signal word;
- Pictogram;
- Hazard statement(s);
- Precautionary statement(s); and
- Name, address and phone number of the chemical manufacturer, distributor, or importer.

Training must also include how an employee might use the labels in the workplace. For example:

- Explain how information on the label can be used to ensure proper storage of hazardous chemicals.
- Explain how the information on the label might be used to quickly locate information on first aid when needed by employees or emergency personnel.

A general understanding of how the elements work together on a label. For example:

- Explain that where a chemical has multiple hazards, different pictograms are used to identify the various hazards. The employee should expect to see the appropriate pictogram for the corresponding hazard class.
- Explain that when there are similar precautionary statements, the one providing the most protective information will be included on the 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.

### How often must HazCom refresher training be given?

You must provide "effective" HazCom training to your employees at the time of their initial assignment and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. For example, if a new solvent is brought into the workplace, and it has hazards similar to existing chemicals for which training has already been conducted, then no new training is required. If the newly introduced solvent is a suspect carcinogen, and there has never been a carcinogenic hazard in the workplace before, then new training for carcinogenic hazards must be conducted for employees in those work areas where employees will be exposed.

### Who must train contract employees or temps?

In order to meet the requirements of the HazCom standard, the contractor and/or the temporary agency employer would be expected to provide generic hazard training and information concerning categories of chemicals employees may potentially encounter. Host employers would then be responsible for providing site-specific hazard training as required by the standard.

Action	Date	By Whom:
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