GHS UPDATE
GHS QUICK FACTS

• Still requires chemical manufacturers and importers to:
  – Evaluate the chemicals they produce or import
  – Provide hazard information to employers and workers by labeling containers and preparing safety data sheets.
GHS QUICK FACTS

• Old standard
  – Allowed chemical manufacturers and importers to convey hazard information on labels and material safety data sheets in whatever format they chose.

• Modified standard
  – A single set of harmonized criteria
  – Classifying chemicals according to their health and physical hazards
  – Specifies hazard communication elements for labeling and safety data sheets.
Major Changes to the Hazard Communication Standard:

- Hazard classification:
  - Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import.
  - Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.
Major Changes to the Hazard Communication Standard:

• Labels: Chemical manufacturers and importers must provide a label that includes
  • a signal word,
  • pictogram,
  • hazard statement,
  • and precautionary statement for each hazard class and category.
**SAMPLE LABEL**

**PRODUCT IDENTIFIER**

**CODE**

Product Name

**SUPPLIER IDENTIFICATION**

Company Name
Street Address
City, State
Postal Code, Country

Emergency Phone Number

**HAZARD PICTOGRAMS**

**SIGNAL WORD**

Danger

**HAZARD STATEMENT**

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

**SUPPLEMENTAL INFORMATION**

**PRECAUTIONARY STATEMENTS**

Keep container tightly closed. Store in 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 measure 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 (CO2) fire extinguisher to extinguish.

**First Aid**
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.
HCS Pictograms and Hazards

Health Hazard
- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame
- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self Reactives
- Organic Peroxides

Exclamation Mark
- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder
- Gases Under Pressure

Corrosion
- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb
- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle
- Oxidizers

Environment (Non-Mandatory)
- Aquatic Toxicity

Skull and Crossbones
- Acute Toxicity (fatal or toxic)
Major Changes to the Hazard Communication Standard:

• Safety Data Sheets:
  – The new format requires 16 specific sections, ensuring consistency in presentation of important protection information.
Major Changes to the Hazard Communication Standard:

- Information and Training:
  - The new standard requires that workers be trained by December 1, 2013 on
    - the new label elements
    - safety data sheet format
    - in addition to the current training requirements.
Training

• OSHA is requiring that employees are trained on the new label elements (e.g., pictograms and signal words) and SDS format by December 2013, while full compliance with the final rule will begin in 2015.

• It is possible that American workplaces may begin to receive labels and SDSs that are consistent with the GHS shortly after publication.

• Important to ensure employees begin to see the new labels and SDSs in their workplaces,
  – Become familiar with them,
  – Understand how to use them,
  – Access the information effectively.
ACTION:

• Chemical users: Continue to update safety data sheets when new ones become available, provide training on the new label elements and update hazard communication programs if new hazards are identified.
ACTIONS:

- Chemical Producers: Review hazard information for all chemicals produced or imported, classify chemicals according to the new classification criteria, and update labels and safety data sheets.
What Hazard Communication Standard Provisions are Unchanged

• The parts of the standard that did not relate to the GHS (such as the basic framework, scope, and exemptions) remained largely unchanged.

• Modifications to terminology in order to align the revised HCS with language used in the GHS. For example, the term "hazard determination" has been changed to "hazard classification" and "material safety data sheet" was changed to "safety data sheet."
## Dates

<table>
<thead>
<tr>
<th>Effective Completion Date</th>
<th>Requirement(s)</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1, 2013</td>
<td>Train employees on the new label elements and SDS format.</td>
<td>Employers</td>
</tr>
<tr>
<td>June 1, 2015*</td>
<td>Comply with all modified provisions of this final rule, except:</td>
<td>Chemical manufacturers, importers, distributors and employers</td>
</tr>
<tr>
<td></td>
<td>Distributors may ship products labeled by manufacturers under the old system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>until December 1, 2015.</td>
<td></td>
</tr>
<tr>
<td>December 1, 2015</td>
<td>Update alternative workplace labeling and hazard communication program as</td>
<td>Employers</td>
</tr>
<tr>
<td></td>
<td>necessary, and provide additional employee training for newly identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>physical or health hazards.</td>
<td></td>
</tr>
<tr>
<td>June 1, 2016</td>
<td>Comply with either 29 CFR 1910.1200 (this final standard), or the current</td>
<td>All chemical manufacturers, importers, distributors and employers</td>
</tr>
<tr>
<td></td>
<td>standard, or both.</td>
<td></td>
</tr>
</tbody>
</table>
Phase-In Period

- OSHA recognizes that hazard communication programs will go through a period of time where labels and SDSs under both standards will be present in the workplace.

- This will be considered acceptable, and employers are not required to maintain two sets of labels and SDSs for compliance purposes.
(h) Employee information and training.

(h)(1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health, chemical hazard, hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets, safety data sheets.

(h)(2) Information. Employees shall be informed of:

(i) The requirements of this section;

(ii) Any operations in their work area where hazardous chemicals are present; and,

(iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and material safety data sheets, safety data sheets required by this section.

(h)(3) Training. Employee training shall include at least:

(i) 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.);

(ii) The physical, and health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, hazards of the chemicals in the work area;
Required Training

• Specifically, OSHA has stated:
  – Employers shall train employees regarding the new label elements and safety data sheet format by December 1, 2013
• The 2013 training does NOT include a requirement to re-train on all hazards
• The training is to ensure that employees understand the new label and SDS approach
# HCS Pictograms and Hazards

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flame</th>
<th>Exclamation Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogen</td>
<td>Flammables</td>
<td>Irritant (skin and eye)</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Pyrophorics</td>
<td>Skin Sensitizer</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Self-Heating</td>
<td>Acute Toxicity (harmful)</td>
</tr>
<tr>
<td>Respiratory Sensitizer</td>
<td>Emits Flammable Gas</td>
<td>Narcotic Effects</td>
</tr>
<tr>
<td>Target Organ Toxicity</td>
<td>Self-Reactives</td>
<td>Respiratory Tract Irritant</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>Organic Peroxides</td>
<td>Hazardous to Ozone Layer (Non-Mandatory)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas Cylinder</th>
<th>Corrosion</th>
<th>Exploding Bomb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gases Under Pressure</td>
<td>Skin Corrosion/Burns</td>
<td>Explosives</td>
</tr>
<tr>
<td></td>
<td>Eye Damage</td>
<td>Self-Reactives</td>
</tr>
<tr>
<td></td>
<td>Corrosive to Metals</td>
<td>Organic Peroxides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flame Over Circle</th>
<th>Environment</th>
<th>Skull and Crossbones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxidizers</td>
<td>Aquatic Toxicity</td>
<td>Acute Toxicity (fatal or toxic)</td>
</tr>
<tr>
<td></td>
<td>(Non-Mandatory)</td>
<td></td>
</tr>
</tbody>
</table>
• Enforcement update
  – Inspections summary
  – Top HCS violations cited
    • Training violations

• Highlights of Letters of interpretation
Total HCS Violations Issued
12/1/13 – 9/1/14

<table>
<thead>
<tr>
<th></th>
<th>Violations</th>
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</thead>
<tbody>
<tr>
<td>Total HCS</td>
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<tr>
<td>Serious</td>
<td>2522</td>
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<tr>
<td>Repeat</td>
<td>75</td>
</tr>
<tr>
<td>Other</td>
<td>2144</td>
</tr>
<tr>
<td>Willful</td>
<td>3</td>
</tr>
</tbody>
</table>

During transition period, HCS-related violations may be cited under HCS 1994, HCS 2012, or both.
Enforcement Results

So what HCS-related violations are being found during OSHA inspections?
Top HCS Standards Cited Overall

1910.1200(h) - training

1910.1200(e) – written program

1910.1200(g) – safety data sheets

1910.1200(f) - labeling
1910.1200 – Hazard Communication Standards Violated

- 1910.1200(e)(1) – written program
- 1910.1200(h)(1) – information and training program
- 1910.1200(h)(3)(iv) – training on shipped labels, workplace labeling & SDS
- 1910.1200(g)(8) – maintain MSDS/SDS and readily accessible during each work shift
- 1910.1200(g)(1) – mfg/importer obtain or develop SDS; employer have a SDS for each chemical
- 1910.1200(f)(5)(i) and (ii) – container labeling
Specific Training Violations

12/1/13 – 9/1/14

• Paragraph (h)(1):
  – Provide employees with effective information and training on hazardous chemicals in their work area;
  – At the time of their initial assignment;
  – Whenever a new chemical hazard is introduced into their work area.

• Paragraph (h)(3)(iv):
  – Explanation of the labels received on shipped containers;
  – Workplace labeling system used by their employer;
  – Safety data sheet including order of information, how employees can obtain and use the appropriate hazard information.
Most Frequently Cited Industries - Training

- machine shops;
- automotive body,
- paint, and interior repair and maintenance;
- miscellaneous fabricated metal manufacturing;
- electroplating, plating, polishing, anodizing, and coloring;
- commercial and institutional building construction;
- skilled nursing care facilities;
- fabricated structural metal manufacturing;
- plumbing, heating and air conditioning contractors;
- foundation, structure, and building exterior contractors, including masonry and roofing contractors;
- hotels and motels.
Highlighted Letters of Interpretation
Hazard Classification w/Limited Information

• HCS does not require the testing of chemicals; however, manufacturers can test their product.

• If there is not enough information to classify a chemical per HCS 2012:
  – Classification must be based on all available information;
  – Professional judgment must be used and documented; and
  – Review when more information becomes available.
Small Package Labeling

• Label elements must be affixed to the immediate container holding the chemical, not the outside packaging.

• A key or numbering system is NOT an acceptable form of labeling.

• Tags, pull-out labels, or fold-back labels can be used to label small containers:
  – must be legible.
If tags, pull-out labels, or fold-back labels cannot be used, OSHA’s practical accommodation for small shipped containers includes:

• Product Identifier
• Appropriate pictograms
• Manufacturer's name and phone number
• Signal word
• A statement indicating the full label information for the chemical is provided on the outside package.
Labeling - Outer Shipping Containers

• Shipped containers must be labeled:
  – No change under HCS 2012.
  – Information required on the label for a shipped container has changed.

• Label must be attached to the hazardous chemical’s immediate container:
  – All packaging materials and boxes are not required to be labeled.
HCS 2012 - Appendix C

- Where a DOT label contains a pictogram for a hazard, the HCS label need not contain the same pictogram.

- Pictogram stickers are acceptable.

- Preprinted stock w/red frames are acceptable; however,
  - Blank red frames are not permitted on labels, they must be fully blacked out when not in use.
HCS 2012 - Appendix C.3
Supplementary Hazard Information

• Manufacturers are permitted to include supplemental information on HCS labels:
  – Provides further detail.
  – Does not contradict or cast doubt on the validity of standardized hazard information.

• Some examples of labeling schemes casting doubt include:
  • Intertwining the supplemental information w/ HCS 2012 information.
    – Example: company logo in between hazard information.
  • Displaying the supplemental information more prominently than HCS 2012 information.
    – Example: CPSC v. OSHA labels.
HCS 2012 - Appendix D
Listing Exposure levels on SDSs

• PELs and TLVs are required to be listed in Section 8 when:
  – The substance is present in the mixture above its cut-off value.
  – If the substance is present below its cut-off value but contributes to the hazard classification of the material.
    • Where a component of a product may be released above the PEL or TLV, information must be included regardless of if the component is below the cut-off value.

• The listings of Sections 3 and 8 must have the same constituents.
Providing SDSs w/ Shipped Containers

- Electronic distribution of SDS requirements:
  - The downstream user must “opt-in.”
  - The downstream user must not be required to purchase new technology by the manufacturer.
  - The manufacturer must provide a letter or email with all information necessary to access the SDSs.
  - The manufacturer must ensure that the downstream user is aware of updates to SDSs.
Company Information Required

• Website address cannot replace a physical mailing address on the SDS and label.
  – May use “P.O. Box.”

• A company’s trade name can be used on the SDS and label in place of a legal name so long as the name is recognizable to downstream users.
Enforcement During Transition period

• Employers are required to comply with either HCS 1994 or HCS 2012 or both during the transition (or implementation) period.

• It is acceptable to have HCS 1994 labels and HCS 2012 SDSs or vice versa.
  – SDSs and HCS 2012 labels must have the information from the hazard classifications, whereas MSDSs and HCS 1994 labels must have the information from hazard determinations.
Enforcement During Transition period

• The manufacturer or importer may not partially implement a HCS 2012-compliant label or SDS for an individual product:
  – For example - not including all the required precautionary statements on the revised label or all the required information on the SDS.

• If a manufacturer or importer is issuing an MSDS or HCS 1994-compliant label, they need to follow the hazard determination criteria using HCS 1994.
Employer Responsibility in Transition Between MSDS and SDS

• Employer responsibilities have not changed under HCS 2012:
  – It is not the responsibility of the employer to create new SDSs.
  – Employers must have and maintain SDSs and make them available to employees.
  – OSHA will not cite employers for maintaining the most recent version of the MSDS.
    • when a more current MSDS/SDS is received the employer must replace the older version.
  – If a manufacturer goes out of business, the employer must maintain the most recent version of the MSDS/SDS.
Employer Responsibility cont.

• Where both MSDSs and SDSs are maintained, the employer’s hazard communication program must reflect this, and
  – Employees must be trained on the differences between MSDSs and SDSs.

• Whenever an employer learns of new hazards, they must provide training to employees.
Workplace Labeling

- NFPA or HMIS system may be used as part of the workplace labeling system.

- For workplace labels, the product identifier, words/pictures/etc., and general information regarding the hazards of the chemicals, if any, must be present.

- The use of the NFPA or HMIS system without the product identifier, words/pictures/etc., and general information regarding the hazards of the chemicals, if any, is not compliant with the standard.
Revised Hazard Communication Directive

• Instruction is designed to provide guidance to compliance safety and health officers on how to enforce the revised Hazard Communication standard during its transition period and when fully implemented.
NEW DIRECTIVE

• JULY 9, 2015
• CPL 02-02-079
ABSTRACT

Purpose: This Instruction establishes policies and procedures to ensure uniform enforcement of the Hazard Communication standard (HCS).

Scope: This Instruction applies OSHA-wide.
HCS Guidance from OSHA

• OSHA’s Safety & Health Topics Page
  – https://www.osha.gov/dsg/hazcom/

• OSHA QuickCards/Fact Sheets/Brief
  – Safety Data Sheets, Labels, Pictograms
  – Comparison of NFPA 704 & HCS 2012 Labels

• Small Entity Compliance Guide

• Publications: 1-800-321-6742 (OSHA)
Highlights

- Hazard Communication Directive (HCS 2012)*
- API Letter A | API Letter B | API Letter C | API Letter D
- Hazard Communication: Small Entity Compliance Guide for Employers That Use Hazardous Chemicals*
- Hazard Communication: Steps to an Effective Hazard Communication Program for Employers That Use Hazardous Chemicals Fact Sheet*
- Comparison of NFPA 704 & HCS 2012 Labels QuickCard [PDF]*
- HCS/HazCom 2012 Final Rule
  - HCS/HazCom Final Rule Regulatory Text
  - **Federal Register:** The Final Rule was published on March 26, 2012 and became effective May 25, 2012
    - **Federal Register** [PDF*; 52 MB]
    - 2013 Corrections Notice
- HCS Comparison: HazCom 1994 and HazCom 2012
  - Side-by-side
  - Redline Strikeout of the Regulatory Text
- HazCom 1994
- **Press Release:** US Department of Labor's OSHA publishes final rule to update the Hazard Communication Standard (HCS)
- Guidance
  - OSHA Briefs: Safety Data Sheet*
  - Label and Pictogram Brief*
  - Fact Sheet
  - December 2013 Training Fact Sheet*
  - Quick Cards
- August 2012 OSHA/SCHC Alliance Webinar Downloadable Hazard Communications 2012 Presentation [PPTX*]
- Hazard Communication: 1 Year of Implementation Downloadable 2013 Hazard Communication Presentation [PPTX*]
- Question of the Month
OSHA BRIEF
Hazard Communication Standard: Labels and Pictograms

OSHA BRIEF
Hazard Communication Standard: Safety Data Sheets
Memorandum

December 27, 2013

SUBJECT:
Classification of Combustible Dusts under the Revised Hazard Communication Standard
Guidance for compliance safety and health officers (CSHOs)

- Determine whether manufacturers or importers have properly classified their products for combustible dust hazards
- Used when inspecting manufacturers and importers,
- Until OSHA addresses through rulemaking
  – compliance with the obligations of 1910.1200(d) for combustible dust.