Complying with the Revised OSHA Hazard Communication Rule

Presented by:

Pam Walaski
President, JC Safety
Complying with the Revised OSHA Hazard Communication Rule
Today’s Topics

✓ What the heck happened?
✓ What is GHS?
✓ Why did OSHA change the Standard?
✓ What do I need to know now?
✓ What should be in my gap analysis plan?
Hazard Communication

- Aligns it with GHS (more in a minute)
- Original Hazard Communication Standard (1983) gave the workers the “right to know”, the revised Standard gives workers the “right to understand”.
Hazard Communication

OSHA Sez:
1. Enhance worker comprehension of hazards, especially for low and limited-literacy workers
2. Reduce confusion in the workplace
3. Facilitate safety training
4. Safer handling and use of chemicals
5. Provide workers quicker and more efficient access to information on the safety data sheets
Hazard Communication

OSHA Sez:

1. Result in cost savings to American businesses of more than $475 million in productivity improvements
2. Need for fewer safety data sheet and label updates
3. Provides simpler hazard communication training
4. Reduces trade barriers by harmonizing with systems around the world
Globally Harmonization System for Classifying and Labeling Chemicals (GHS)

Provides a common, coherent approach to defining, classifying and communicating hazards from chemicals.
Global Harmonization

GHS History

✓ Agreement that system should be developed
✓ UN General Assembly agrees with UNCED recommendations
✓ Shortly after, working group created to develop system recommendations
Global Harmonization

GHS History

✓ Process managed by international group of countries
✓ Existing systems in US, Canada and Europe used as models
✓ System was adopted by UN in 2003
✓ Goal was for countries to adopt by 2008
✓ Each country has its own process to implement
Why is GHS Better?

- Standardizes system across countries
- Enhance global trade by reducing burdens of complying with various systems
- Enhances protection of humans and the environment
- Creates system in countries where none currently exists
- Less animal testing for data
Why is GHS Better?

Should not fundamentally change what is considered hazardous, just standardize the methods of classifying and communicating the hazards.
Scope of GHS

- **Classification Criteria**
  - Health and environmental hazards
  - Physical hazards

- **Communication Requirements**
  - Labels
  - Safety Data Sheets (SDS)
  - Training

*Just like the current Hazard Communication Standard*
Health and Environmental Hazards

- Acute Toxicity
- Reproductive toxicity
- Target organ toxicity – single and repeat dose
- Aspiration toxicity
- Skin Corrosion/Irritation

- Carcinogenicity
- Hazardous to aquatic environment
- Serious eye damage/irritation
- Respiratory/skin sensitization
- Germ cell mutagenicity
Health and Environmental Hazards

Exceptions – Environmental Effects

- GHS covers aquatic toxicity
- OSHA has no jurisdiction
Physical Hazards

- Explosives
- Flammability
- Oxidizers
- Self-reactive
- Pyrophoric
- Self-heating
- Organic peroxides
- Corrosive to metals
- Gases under pressure
- Water activated flammable gases
GHS Implications

✓ Some countries have to started from scratch
  ▪ easiest way – less to change

✓ “Building-block” approach for others
  ▪ like the US

✓ Varying levels of implementation schedules and time frames

✓ All relevant sectors will be involved
  ▪ workplace, consumers, pesticides, and transport
US Implementation

DOT and GHS

- Fewest changes needed
- Already harmonized with international transport system except for aquatic toxicity
OSHA and GHS

- OSHA Staff were participants in UN Subcommittee of Experts on GHS
- Extensive involvement in UN recommendations
OSHA and GHS

✓ Has the most requirements impacted by GHS
✓ Covers 7 million workplaces/945,000+ chemical products
✓ Covers all acute and chronic hazards
OSHA and GHS

✓ Published an Advance Notice of Public Rulemaking (ANPR) in 2009 (second one)
✓ Published Final Rule on March 26th
✓ Effective May 26th (60 days)
✓ Full implementation not until 2016
<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 safety data sheet (SDS) format.</td>
<td>Employers</td>
</tr>
<tr>
<td>June 1, 2015</td>
<td>Compliance with all modified provisions of this final rule, except</td>
<td>Chemical manufacturers, importers, distributors and employers</td>
</tr>
<tr>
<td>December 1, 2015</td>
<td>The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label</td>
<td></td>
</tr>
<tr>
<td>June 1, 2016</td>
<td>Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.</td>
<td>Employers</td>
</tr>
</tbody>
</table>
What Happens Between Now and 2016?

- Can comply with either the existing HCS or the revised HCS - or both
- For a time labels and SDSs under both standards will be present in the workplace
- This is perfectly fine
  - Employers are not required to maintain two sets of labels and SDSs for compliance purposes
Hazard Communication Revisions

Final Rule Did Not Change:

- Who is covered by the HCS
- The ability to protect trade secrets on labels and in SDSs
- What type of substances are covered – what is a hazardous substance?
- Documents will look different, but chemicals the same
Some terminology changes in the Standard, even when provisions did not change - the term "hazard determination" has been changed to "hazard classification"
Hazard Communication Revisions

✓ Hazard Classification process is the biggest change
✓ Only employers who manufacture products/by-products are involved
✓ Like most recent standards the previous HCS was a performance-oriented approach
  ▪ Provides parameters for the evaluation, but not specific, detailed criteria
New Classification Process

✓ Specific criteria for each health and physical hazard
✓ Detailed instructions for hazard evaluation and determinations
✓ Hazard classes and hazard categories
  • The classes are divided into categories that reflect the relative severity of the effect
Label Changes

- Chemical manufacturers and importers must create harmonized labels
  - Signal word
  - Pictogram
  - Hazard statement
  - Precautionary statement
- For each hazard class and category
- Six months to update labels when new information becomes known
Label Changes

Signal Words

✓ Signal word used to indicate the relative level of severity of hazard

✓ Alerts the reader to a potential hazard on the label.

✓ "Danger" is used for the more severe hazards, while "Warning" is used for less severe hazards.

✓ No more "Caution"
Label Changes

Pictogram

✓ Symbol plus other graphic elements (border, background pattern, or color) that
✓ Intended to convey specific information about the hazards of a chemical
✓ White background within a red square frame set on a point (i.e. a red diamond).
✓ Nine pictograms under the GHS - only eight pictograms are required under the HCS
<table>
<thead>
<tr>
<th>Carcinogen</th>
<th>Flammables</th>
<th>Irritant (skin and eye)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutagenicity</td>
<td>Pyrophorics</td>
<td>Skin Sensitizer</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Self-Heating</td>
<td>Acute Toxicity</td>
</tr>
<tr>
<td>Respiratory Sensitizer</td>
<td>Emits Flammable Gas</td>
<td>(harmful)</td>
</tr>
<tr>
<td>Target Organ Toxicity</td>
<td>Self-Reactives</td>
<td>Narcotic Effects</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>Organic Peroxides</td>
<td>Respiratory Tract</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Irritant</td>
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<tr>
<td></td>
<td></td>
<td>Hazardous to Ozone</td>
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<td></td>
<td>Layer</td>
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<tr>
<td></td>
<td></td>
<td>(Non Mandatory)</td>
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<tr>
<td>Classification</td>
<td>Hazards</td>
<td></td>
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<tr>
<td>------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Gases under Pressure               | • Skin Corrosion/ burns  
  • Eye Damage  
  • Corrosive to Metals |
| Oxidizers                          | • Aquatic Toxicity                                                    |
|                                    | • Acute Toxicity (fatal or toxic)                                     |
| Explosives                         | • Self-Reactives                                                      |
| Organic Peroxides                  | • Explosives                                                          |
Label Changes

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

✓ Ex. – “fire or protection hazard”
  “fatal if inhaled”
Label Changes

Precautionary Statement

✓ A phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling of a hazardous chemical
Label Changes

Precautionary Statement

“Do not spray on open flame or other ignition source” (prevention)

“Wash contaminated clothing before reuse” (response)

“Protect from sunlight. Store in a well ventilated place” (storage)
Key Label Elements

Product identifier
Supplier identifier
Chemical identity
Hazard pictograms*
Signal words*
Hazard statements*
Precautionary information

*Harmonized
CHEMICAL X

DANGER

HAZARD STATEMENTS:
Fatal If swallowed.
Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS:
- Wear protective gloves.
- Wear face protection.
- Do not eat drink or smoke when using this product.
- Wash hands thoroughly after use.
- Store in a sealed container.
- IF ON SKIN: Rinse immediately with with cool water.
- IF IN EYES: Rinse thoroughly with water and seek medical attention.
- IF SWALLOWED: Do not induce vomiting. Seek medical attention.

Dispose of contents/container in accordance with local regulations.
Chemical X Manufacturing, 1234 Over There St., (123) 456-7890

See the S.D.S. for more information.
Label Changes

What about NFPA and HMIS?

- Alternative labeling systems are permitted for workplace containers
- The information supplied on these labels must be consistent with the revised HCS, e.g., no conflicting hazard warnings or pictograms

(??)
MSDS versus SDS

MSDS
- Has content requirements, but not format

SDS
- Has content and format requirements (follows ANSI)
MSDS versus SDS

- SDS Content (order counts!):
  - Identification
  - Hazard Identification
  - Composition
  - First Aid Measures
  - Firefighting measures
  - Accidental release measures
  - Handling and storage
  - Exposure controls/personal protection
MSDS versus SDS

SDS Content (continued):
✓ Physical and chemical properties
✓ Stability and reactivity
✓ Toxicological information
✓ Ecological information
✓ Disposal considerations
✓ Transport information
✓ Regulatory information
✓ Other information
What About Training?

✓ Training should include:
  ▪ Information on how to read labels and SDSs
  ▪ How to respond safely to chemical hazards

✓ Major changes in training are just the revised elements of HCS

✓ Ongoing training can continue as usual
Label Changes and Training

Since some products will soon (if not already) have GHS label/SDSs, it’s important to time the new training for when they begin to proliferate but still making sure new shipments are understood by employees.
Miscellaneous Issues

Threshold Limit Values (TLVs)

- Retaining the requirement to include on the SDS
- Provides useful information to help assess the hazards
- OSHA PELs and other exposure limits are also required
What about Cancer?

If a chemical is listed as a carcinogen by either International Agency for Research on Cancer (IARC) or National Toxicology Program (NTP), it must be noted on the SDS. Additionally, if OSHA finds a chemical to be a carcinogen, it must be noted on the SDS as well.
Global Harmonization

What about HNOC – Combustible Dust

✓ No definition for combustible dust
  ✓ Given ongoing activities in the specific rulemaking as well as in the United Nations Sub-Committee of Experts on the GHS (UN/SCEGHS).

✓ Combustible dust hazards must be addressed on labels and SDSs
  ✓ Signal word “Warning”
  ✓ Hazard statement "May form combustible dust concentrations in the air"
Ready References

The Purple Book

✓ Fairly comprehensive
✓ Published by UN – available at OSHA website

http://www.osha.gov/dsg/hazcom/ghs.html
Ready References

OSHA Quick Cards

SDS – Shows 16 section format with explanation for each
http://www.osha.gov/Publications/HazComm_QuickCard_SafetyData.html

Labels – Shows sample label with hazard statements and pictograms
http://www.osha.gov/Publications/HazComm_QuickCard_Labels.html
OSHA Quick Cards

Pictograms - Shows each pictogram and what substances they are used to represent

http://www.osha.gov/Publications/HazComm_QuickCard_Pictogram.html

Coming soon from OSHA! – PowerPoint slides
What Else?

- OSHA has to change other standards?
- Example – flammable liquids
  - OSHA – flash point <100°F
  - DOT/GHS – flash point <141°F
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Questions??
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Pam Walaski
pam@jcsafety.com

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May 9, 2012 – 12:00 Noon (Eastern)

Presented By:

Glenn Demby
Editor in Chief, Bongarde Media

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