GHS

Globally Harmonized System for Classification and Labeling of Chemicals

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Agenda

- Overview
- Hazard Communication – *improving TUR and EHS*
- OSHA GHS - Requirements
- GHS Classification
- GHS Labeling
- Safety Data Sheets (SDS)
- Employee Training
- Discussion

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Objectives

- Provide overview of OSHA requirements
- Explore how new Hazard Communication standard and GHS can improve your facility TUR and EH&S programs
- Introduce GHS classification, labeling and SDS format
- Practice labeling, understanding SDS
- Provide basic reference and training materials

OSHA Implementation Globally Harmonized System

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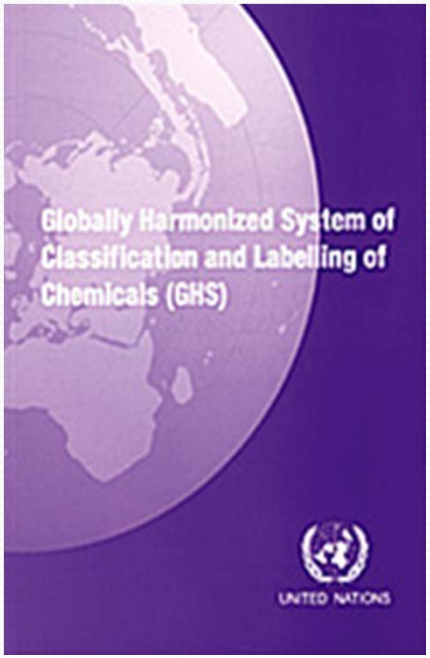
Disclaimer – OSHA information

- This information has been developed by an OSHA Compliance Officer and is intended to assist employers, workers, and others as they strive to improve workplace health and safety. While we attempt to thoroughly address specific topics [or hazards], it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in a presentation of this nature. Thus, this information must be understood as a tool for addressing workplace hazards, rather than an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. Likewise, to the extent that this information references practices or procedures that may enhance health or safety, but which are not required by a statute, regulation, or standards, it cannot , and does not, create additional legal obligations. Finally, over time, OSHA may modify rules and interpretations, in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit the OSHA website at www.osha.gov.

Why is GHS Needed?

- No country has the ability to identify and specifically regulate every hazardous chemical product
- Adoption of requirements for information to accompany the product helps address protection needs
- Countries with systems that address these needs have adopted different requirements for hazard definitions as well as information to be included on a label or material safety data sheet
- Impacts both protection and trade

UN GHS Links & Information



- United Nations Economic Commission for Europe GHS Sub-committee
- http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html

Why does the US need it?

- United States has regulatory requirements that address concerns in different sectors
- Not domestically harmonized—each Agency has pursued independent regulations that differ from each other
- Domestic producers have to classify and label multiple times for the same product

Why does OSHA need it?

- OSHA's Hazard Communication Standard (HCS) has performance-oriented requirements for labels and safety data sheets
- Hazard communication is often inconsistent as a result
- Users of labels and safety data sheets would prefer a standardized approach
- Adoption of GHS would address this concern moves from performance-oriented to a specification approach. Hazard now need to be classified rather than just evaluated.

Global Benefits of Harmonization

- Countries, international organizations, chemical producers and users of chemicals all benefit
- Enhance protection of humans and environment
- Facilitate international trade in chemicals
- Reduce need for testing and evaluation
- Assist countries and international organizations to ensure sound management of chemicals.
- Increase quality and consistency of information provided.

Global Benefits of Harmonization

- Increase the quality and consistency of information provided to the workers, employers, and chemical users
  - Reduce confusion/increase comprehension of hazards
  - Improve downstream risk management
  - Facilitate training
  - Help address literacy problems

GHS Requirements

- Health, physical and environmental hazard criteria for substances and for classification of mixtures
- Provisions for communicating information on labels (including product identifier, precautionary statements, hazard statements, harmonized pictograms, and signal words)
- A 16-section safety data sheet, following ANSI Z400 format (the decision logic guidance from UN is not included within the Hazcom 2012 but will be included later to assist with compliance)

Effective Dates

- 12/1/2013 – Train workers
- 6/1/2015 – Manufacturers, importers, distributors, and employers comply with all modified provisions
- 12/1/2015 – Distributors can ship products labeled by manufacturer under old system
- 6/1/2016 - Employers must update labels and hazard communication program as necessary
- During transition – follow either rule

Organization of the Final Rule

(a) Purpose
(b) Scope and Application
(c) Definitions
(d) Hazard Classification
(e) Written Hazard Communication Program
(f) Labels and Other Forms of Warning
(g) Safety Data Sheets
(h) Employee Information and Training
(i) Trade Secrets
(j) Effective Dates
Appendices A-F

Appendices

- Appendix A, Health Hazard Criteria (Mandatory) (NEW)
- Appendix B, Physical Hazard Criteria (Mandatory) (NEW)
- Appendix C, Allocation of Label Elements (Mandatory) (NEW)
- Appendix D, Safety Data Sheets (Mandatory) (NEW)
- Appendix E, Definition of "Trade Secret" (Mandatory)
- Appendix F, Guidance for Hazard Classifications re: Carcinogenicity (Non-Mandatory) (NEW)

(c) Definitions

- HazCom 1994
  - Includes specific definitions for terms used in the standard, as well as all physical hazards
- HazCom 2012
  - Physical hazard definitions removed from (c) and placed in new Appendix B on physical hazard classification criteria
  - Following terms deleted: flashpoint (methods included in Appendix B), hazard warning, MSDS
  - Some definitions revised to be consistent with GHS
  - New definition added for classification

(d) Hazard Classification

- HazCom 1994
  - Performance oriented
    - Definitions in (c) and Appendices A & B
    - Appendix B-parameters for evaluating data
    - "Floor" of chemicals considered hazardous
    - "One Study" rule
    - Standardized mixture cut-off rules
- HazCom 2012
  - Specific and detailed
    - Concept of "classification" vs. determination in current rule
    - Each hazard class has detailed criteria to apply to data on chemical
    - No floor; based on weight of evidence
    - Mixture rules are specific to each hazard class

Hazard Classification

- Each physical or health hazard is a “hazard class” (e.g., Carcinogenicity is a hazard class).
- A “hazard class” may be sub-divided in the criteria into several “hazard categories” based on the degree of the severity of the hazard.
- Placing a chemical into a “hazard class”, and where necessary a “hazard category”, is the concept of classification- determining not only the hazard but the severity of the effect.

Hazard Classification (cont)

- Manufacturers are still responsible for determining the hazards of the chemicals they produce or import.
- Classification (similar to hazard determination) is based on the full range of available information (meaning no testing is required).
- The procedures for determining if the manufacturer has properly performed the hazard classification are provided in Appendix A (health) and Appendix B (physical).

Health Hazards

Hazard Class	Hazard Category			
Acute Toxicity	1	2	3	4
Skin Corrosion/Irritation	1A	1B	1C	2
Serious Eye Damage/ Eye Irritation	1	2A	2B	
Respiratory or Skin Sensitization	1			
Germ Cell Mutagenicity	1A	1B	2	
Carcinogenicity	1A	1B	2	
Reproductive Toxicity	1A	1B	2	Lactation
STOT – Single Exposure	1	2	3	
STOT – Repeated Exposure	1	2		
Aspiration	1			
Simple Asphyxiants	Single Category			

HazCom 1994: Mixtures

- For mixtures, the approach for health hazards is to base it on a percentage cut-off of 0.1 percent or greater is a carcinogen or 1 percent for all other effects

HazCom 2012: Mixtures

- The GHS has a tiered approach to mixtures ,with each health hazard class having a specific approach.
  - Step 1: Use available test data on the mixture as a whole to classify the mixture based on the substance criteria
  - Step 2: Use bridging principles to extrapolate from other data (e.g. dilution principle or batching)
  - Step 3: Estimate hazards based on known information regarding the ingredient of the mixtures, such as cutoffs.
  - Except for chronic health hazards
  - Manufacturers and importers may relay on the information provided in SDSs unless they have a reason to know it is inaccurate

Physical Hazards

Hazard Class	Hazard Category						
Explosives	Unstable Explosives	Div 1.1	Div 1.2	Div 1.3	Div 1.4	Div 1.5	Div 1.6
Flammable Gases	1	2					
Flammable Aerosols	1	2					
Oxidizing Gases	1						
Gases under Pressure Compressed Gases Liquefied Gases Refrigerated Liquefied Gases Dissolved Gases	1						
Flammable Liquids	1	2	3	4			
Flammable Solids	1	2					
Self-Reactive Chemicals	Type A	Type B	Type C	Type D	Type E	Type F	Type G
Pyrophoric Liquids	1						
Pyrophoric Solid	1						
Pyrophoric Gases	Single category						
Self-heating Chemicals	1	2					
Chemicals, which in contact with water, emit flammable gases	1	2	3				
Oxidizing Liquids	1	2	3				
Oxidizing Solids	1	2	3				
Organic Peroxides	Type A	Type B	Type C	Type D	Type E	Type F	Type G
Corrosive to Metals	1						
Combustible Dusts	Single Category						

Hazards not otherwise classified (HNOC)

- This definition was added to ensure that hazards currently covered by HCS continue to be covered.
- Information will be required in the SDS in Section 2
- Hazard information on the label, is not mandatory, but can be provided under supplementary information.
- Such hazards may also be addressed in worker training.

Simple Asphyxiant and Pyrophoric Gas

- "Simple asphyxiant" means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.
  - Label: ***Warning. May displace oxygen and cause rapid suffocation.***

- "Pyrophoric gas" means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.
  - Label: ***Danger. Catches fire spontaneously if exposed to air.***

Combustible Dust

- Combustible dust is covered separately from HNOC, but is not specifically defined
- Guidance for defining combustible dust is to be taken from existing documents, including the directive for the National Emphasis Program; the NFPA standards also provide useful information
- Combustible dust must be addressed on labels where appropriate:
  - *Warning. May form combustible dust concentrations in air.*
  - Paragraph (f)(4) may apply to materials shipped in solid form, that create combustible dust when processed

Precautionary Statement

- *Precautionary statement* means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.
- Example: Wear face protection [for Explosives, Division 1.1]

Hazard Statement

- Hazard Statement is 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- Harmful if inhaled [for Category 4 Acute Toxicity - Inhalation]

Classification Exercise

Toluene

Complete missing information in table

- Reference Material:
  - OSHA GHS Guide; Section 3.0

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New Labeling Requirements

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Pictogram

- *Pictogram* means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Flammable

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

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Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides

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Corrosive

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

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Irritant

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

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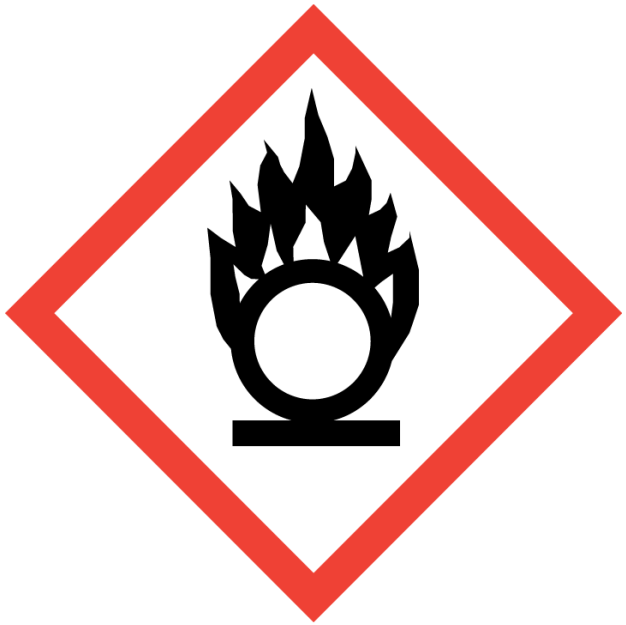
Flame Over Circle

- Oxidizers



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Gas Cylinders

- Gases Under Pressure

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Skull and Crossbones

- Acute Toxicity (fatal or toxic)

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Health Hazard

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

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Environment (Non-Mandatory)

- **AQUATIC TOXICITY**

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Workplace Labeling

- OSHA is maintaining the approach used in the current HCS that allows employers to use workplace-specific labeling systems as long as they provide the required information

- However, such workplace label systems may need to be updated to make sure the information is consistent with the new classifications

- NFPA/HMIS Systems

  - (ratings systems v. classification)

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Other Requirements

- OSHA is maintaining the current approach to allowing alternatives to labels on each stationary process container; and the exception for portable containers under the control of the person who filled them with the chemical
- Labels on incoming containers are not to be removed or defaced unless immediately replaced by another label
- Workplace labels are to be prominently displayed and in English, although other languages are permitted as well

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Labeling Exercise

1. Create new labels for raw materials:
   - Toluene
   - N-hexane
   - Ethyl acetate
   - Sodium hydroxide
   - Aluminum powder

2. Stick-2-It Adhesives has made a new adhesive. The adhesive contains the following materials:
   - Toluene
   - N-Hexane
   - Aluminum powder
   - Other non-hazardous ingredients

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Labeling Exercise

- Identify the following:
  - Product Name
  - Signal Word
  - Hazard Statement(s)
  - Precautionary Statement(s)
  - Pictogram(s)

- Resources
  - OSHA Quick Cards and fact sheets
  - GHS-OSHA HCS comparison
  - Safety Data Sheets

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(g) Safety Data Sheets

- HCS-1994 allows any order of information on MSDS
- HCS-2012 specifies order of information to be used on SDS
- Consistent with industry approaches in ANSI and ISO
- Improve comprehensibility and help with issues regarding accuracy of information
- New 16 section Safety Data Sheet(SDS) to replace MSDS

Safety Data Sheets (SDS)

- Order of Contents – OSHA Required
  1. Identification of the substance
  2. Hazards Identification
  3. Composition/information on ingredients
  4. First-Aid measures
  5. Fire-fighting measures
  6. Accidental release measures
  7. Handling and storage
  8. Exposure controls/personal protection
  9. Physical and chemical properties
  10. Stability and reactivity
  11. Toxicological information
  16. Other information, including date of preparation or last revision

Safety Data Sheet (Non-Mandatory Sections)

- Non-Mandatory Sections
  - 12. Ecological information (Non-mandatory)
  - 13. Disposal considerations (Non-mandatory)
  - 14. Transport information (Non-mandatory)
  - 15. Regulatory information (Non-mandatory)

Section 1 – Identification

- Product identifier
- Manufacturer or distributor name, address, telephone number
- Emergency telephone number
- Recommended use
- Restriction on use

Section 2 – Hazard Identification

- All chemical hazards
- Required label elements
- See appendix A for chemical hazards
- See appendix B for physical hazards

Section 3 – Composition/Information on Ingredients

- Chemical ingredients
- Trade secrets

Section 4 – First-Aid Measures

- Important symptoms/effect
- Acute treatment
- Delayed treatment
- Required treatment

Section 5 – Fire-Fighting Measures

- Lists suitable extinguishing techniques
- Equipment
- Chemical hazards from fire

Section 6 – Accidental Release Measures

- Lists emergency procedures
- Protective equipment
- Proper methods of containment and cleanup

Section 7 – Handling and Storage

- Lists precautions for safe handling and storage
- List incompatibilities

Section 8 – Exposure Controls and Personal Protection

- Lists OSHA's permissible exposure limits(PELS)
- Threshold limit values(TLVs) will continue to be required
- Appropriate engineering controls
- Personal protective equipment(PPE)

Section 9 – Physical and Chemical Properties

- Lists properties such as: UFL, LFL, BP, VP, flash point, density, specific gravity, explosive characteristics, etc.

Section 10 – Stability and Reactivity

- Lists chemical stability and possibility of hazardous reactions

Section 11 – Toxicological Information

- Routes of exposure
- Related symptoms
- Acute and chronic effects
- Numerical measures of toxicity
- Information regarding carcinogenicity classifications by IARC and NTP also continue to be required.

Section 12 – Ecological Information(non-mandatory)

- EPA input
- Local and State input

Section 13 – Disposal Considerations (non-mandatory)

- EPA input
- Local and State input

Section 14 – Transportation Information (non-mandatory)

- DOT input
- Local and State input

Section 15 – Regulatory Information (non-mandatory)

- NRC, DEA, FAA, etc.

Section 16 – Other Information

- Date of SDS preparation or last revision
- Any other useful information

SDS Explanation

- See Appendix D to 29 CFR 1910.1200 for a detailed description of SDS contents
- SDS's must be readily accessible to employees

SDS, MSDS….old, new and EU

- UN GHS Codes
  - H-Codes
    - Hazard statement codes correspond to hazard classifications
  - P-Codes
    - Precautionary statement codes
- Reference:
  - Sigma Aldrich GHS poster
  - UN GHS “purple book”

SDS, MSDS…. old, new and EU

Pictogram(s) GHS02, GHS07, GHS08

H Phrase(s)

H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H361d - Suspected of damaging the unborn child
H373 - May cause damage to central nervous system through prolonged or repeated exposure

P Phrase(s)

P201 - Obtain special instructions before use.
P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301/310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.
P303/361/353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P309/311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P403/235 - Store in a well-ventilated place. Keep cool.

SDS, MSDS….old, new and EU

- EU Dangerous Substances Directive 67/548/EEC and Dangerous Preparations Directive 1999/45/EC
  - Risk R-phrases, safety S-phrases
    - e.g., R45 = may cause cancer; S22 = Do not breathe dust
  - Classification hazard codes
    - e.g., Xi irritant

SDS, MSDS….old, new and EU

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Repr. 2	H361
STOT SE 3	H336
STOT RE 2	H373
Asp. Tox. 1	H304

Full text of H-phrases: see section 16.

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11
Repr.Cat.3; R63
Xn; R48/20-65
Xi; R38
R67

Safety Data Sheet Exercise

- *How can you use the new SDS information to assist with TUR reporting and planning?*

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Effective Dates

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015* December 1, 2015	Compliance with all modified provisions of this final rule, except: The Distributor may ship containers labeled under the HCS 1994 by a manufacturer or importer until December 1, 2015.	Chemical manufacturers, importers, distributors and employers
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.	Employers
Transition Period to the effective completion dates noted above	May comply with either 29 CFR 1910.1200 (the final standard), or the current standard, or both	Chemical manufacturers, importers, distributors, and employers

Health Standards

- The substance-specific standards generally pre-date the HCS, and do not have a comprehensive approach to hazard communication
- The final rule references the HCS 2012 in each of these standards to ensure they have all the protections of the rule
- In addition, OSHA updated the provisions regarding what is to be communicated to workers to ensure the health effects are consistent with the GHS criteria
- Regulated area signs will need to be updated to reflect the new language.
- Timing – June 1, 2016

Health Standards

Asbestos (1910.1001; 1926.1101; 1915.1001)
13 Carcinogens (1910.1003)
Vinyl Chloride (1910.1017)
Inorganic Arsenic (1910.1018)
Lead (1910.1025; 1926.62)
Chromium (VI) (1910.1026; 1926.1126; 1915.1026)
Cadmium (1910.1027; 1926.1127)
Benzene (1910.1028)
Coke Oven Emissions (1910.1029)
Cotton Dust (1910.1043)
1,2-dibromo-3-chloropropane (1910.1044)
Acrylonitrile (1910.1045)
Ethylene Oxide (1910.1047)
Formaldehyde (1910.1048)
Methylenedianiline (1910.1050; 1926.60)
1,3-Butadiene (1910.1051)
Methylene Chloride (1910.1052)
Occupational exposure to hazardous chemicals in laboratories (1910.1450)

Table XIII-4. Regulated Area Signs in Substance-Specific Health Standards

Standard	Substance	Original signs	Final Changes
1910.1001 1915.1001 1926.1101	Asbestos Regulated areas Where the use of respirators and protected clothing is required	DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA	DANGER ASBESTOS MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS AUTHORIZED PERSONNEL ONLY WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

Safety Standards

- OSHA updated a number of safety standards to be consistent with the criteria in the HCS 2012
- The manner in which this was done depended on the provisions of the standard being considered, and approaches varied
- In some cases, it was decided that changes could not be made at this time given the source of the standard or other constraints
- OSHA sought to minimize the impact on the scope or substantive provisions of the standards that were updated

Flammable Liquid Classification
GHS - OSHA Crosswalk

GHS			Flammable and Combustible Liquids Standard (29 CFR 1910.106)		
Category	**Flashpoint °C (° F)**	**Boiling Point °C (° F)**	**Class**	**Flashpoint °C (° F)**	**Boiling Point °C (° F)**
Flammable 1	< 23 (73.4)	≤ 35 (95)	Flammable Class IA	< 22.8 (73)	< 37.8 (100)
Flammable 2	< 23 (73.4)	> 35 (95)	Flammable Class IB	< 22.8 (73)	≥ 37.8 (100)
Flammable 3	≥ 23 (73.4) and ≤ 60 (140)		Flammable Class IC Combustible Class II	≥ 22.8 (73) and < 37.8 (100) ≥ 37.8 (100) and < 60 (140)	
Flammable 4	> 60 (140) and ≤93 (199.4)		Combustible Class IIIA	≥ 60 (140) and <93.3 (200)	
None			Combustible Class IIIB	≥ 93.3 (200)	

** Not covered by §1910.1200 or §1910.106 however interpretation letter indicates these are covered by §1910.107

Safety Standards
Flammable Liquids 1910.106

- HCS 1994

  Flame arresters or venting devices required in subdivision (f) of this subdivision may be omitted for Class IB and IC liquids where conditions are such that their use may, in case of obstruction, result in tank damage.

- HCS 2012

  (*g*) Flame arresters or venting devices required in paragraph (B)(2)(iv)(*f*) of this section may be omitted for ***Category 2 flammable liquids and Category 3 flammable liquids with a flashpoint below 100 °F (37.8 °C)*** where conditions are such that their use may, in case of obstruction, result in tank damage.

(h) Employee Information and Training

- Although this paragraph remains essentially the same, updates include
  - Training to include label elements and new safety data sheet format - by December 1, 2013
  - Training to reflect any new hazards identified in the workplace - by June 1, 2016

Train-The-Trainer Information

- Understand the audience
- Have real life examples
- Have revised SDS forms
- Short Video
- Tell them why this is important to them
- Leave time for questions

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Key Topics to be Discussed

- A. Purpose and Scope
  - *to ensure that the hazards of all chemical produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees*.

Elements of the Standard

- Hazard Classification - performed by manufacturers, importers, or distributors
- Labels and Other Forms of Warning
- Safety Data Sheets (SDS)
- Written Hazard Communication Program
- Training

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Health Hazards and Physical Hazards of Chemicals

- General Toxicology
- Flammable Materials
- Compressed Gases
- Understanding SDSs

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Personal Protective Equipment

- Eye Protection
- Glove Selection and Use
- Respiratory Protection
- Other PPE as appropriate

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Chemical Spills

- Notifications
- Response Action
- Support and Organizational Capabilities

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Other Regulations

- Hazardous Waste Operations and Emergency Response
  - Recognize labels and new definitions
  - Understand SDS format
- Flammable Liquids
  - Change in definitions

Other Regulations

- Process Safety Management
  - Change in definitions of Flammable Liquids and gases
- Dipping and Coating Operations
  - Changes in definitions of Flammable Liquids and Gases

Other Regulations

- Welding, Cutting and Brazing
  - Revised Health definitions
  - Revised Labeling requirements
- Subpart Z – Chemical Specific
  - Revised Definitions
  - Revised Labeling and Marking

Training Materials

- OSHA quick cards and fact sheets
- Posters and other summary sheets
  - Label pictograms and warning words
  - Hazard and safety codes
- SDS examples

Updated OSHA Webpages

HCS 2012 Webpage:
http://www.osha.gov/dsg/hazcom/index.html

Safety & Health Topics Webpage:
http://www.osha.gov/dsg/hazcom/index2.html

Guidance & Outreach

Hazard Communication

Aligns with the UN's Globally Harmonized System of Classification and Labelling of Chemicals

HAZARD COMMUNICATION

The standard that gave workers the right to know, now gives them the right to understand.

Safety & Health Topics Page: Hazard Communication

Labeling | Safety Data Sheets | Pictograms | Effective Dates

Dr. David Michaels discusses the publication of the Final Rule for Hazard Communication
[Video | Statement]

"Exposure to hazardous chemicals is one of the most serious threats facing American workers today," said U.S. Secretary of Labor Hilda Solis. "Revising OSHA's Hazard Communication standard will improve the quality and consistency of hazard information, making it safer for workers to do their jobs and easier for employers to stay competitive."

The Hazard Communication Standard (HCS) is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This update to the Hazard Communication Standard (HCS) will provide a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets. Once implemented, the revised standard 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. This update will also help reduce trade barriers and result in productivity improvements for American businesses that regularly handle, store, and use hazardous chemicals while providing cost savings for American businesses that periodically update safety data sheets and labels for chemicals covered under the hazard communication standard.

Highlights:

- NEW! December 1, 2013 Training Requirements Fact Sheet [PDF*, 289 KB]
- NEW! OSHA Brief on Labels and Pictograms [PDF*, 427 KB]
- HCS/HazCom 2012 Final Rule
  - **Federal Register:** The Final Rule was filed on March 20th at the Office of the Federal Register and available for viewing on their Public Electronic Inspection Desk. The Federal Register published the final rule on March 26, 2012. The effective date of the final rule is 60 days after the date of publication.
    - Federal Register [PDF*, 52 MB]
- 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 [PDF*, 260 KB]
  - Fact Sheet
  - Quick Cards
- Downloadable Pictograms
- August 2012 OSHA/SCHC Alliance Webinar
- *Downloadable Hazard Communications 2012 Presentation* [PPTX*,]
- Question of the Month

To Summarize….

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Questions