

OSHA Implementation Globally Harmonized System & OSHA Update

Joanne Regan
USDOL/OSHA

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(617)565-9856

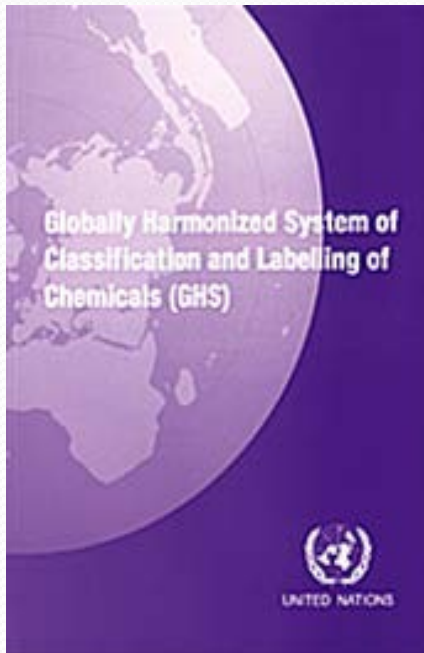
Disclaimer

- 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 Subcommittee
- 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

Regulatory Process

- Advanced Notice of Proposed Rulemaking (ANPR) in 2006
- Notice of Proposed Rulemaking (NPRM 2009)
 - Public comment period
 - Public hearings, 2010
 - Post-hearing comment period
- Final standard (published in Federal Register, Vol 77, No. 58, March 26, 2012)
- Effective May 25, 2012
- Phase-in period for compliance

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)

Impact on OSHA Requirements

- Hazard Communication Standard includes the primary affected requirements
- OSHA has more requirements affected by GHS than other US agencies:
 - Cover all acute and chronic hazards
 - Requirements for labels and safety data sheets
 - Cover over 7 million workplaces and 945,000 hazardous chemical products

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).

Available Data, Test Methods and Test Data Quality

- No requirement for testing chemicals. Existing test data are acceptable for classifying chemicals
- For health hazards, no specified test methods. Methods must be scientifically validated procedures.
- A chemical need not be classified when it can be shown ... that the chemical is not biologically available.
- For classification purposes, consider
 - epidemiological data
 - experience on the effects of chemicals on humans (*e.g.* occupational data, data from accident databases)

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						
<i>Pyrophoric Gases</i>	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						
<i>Combustible Dusts</i>	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

(f) Labels and Other Forms of Warning

- HazCom **1994**
 - Shipped containers to be labeled with identity, appropriate hazard warning, responsible party.
 - Performance oriented, specifics left to the discretion of chemical mfg or importer.
- HazCom **2012**
 - Shipped containers to be labeled with product identifier; signal word; hazard statement(s); pictograms; precautionary statements; and responsible party.
 - Specifies information by hazard class and category.
 - See Appendix C



« Hazard Communication



Hazard Communication Standard Labels

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided on the label as needed.

For more information: www.osha.gov



(800) 321-OSHA (6742)

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name _____
Street Address _____
City _____ State _____

Postal Code _____ Country _____

Emergency Phone Number _____

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.

HAZARD PICTOGRAMS



SIGNAL WORD

Danger

HAZARD STATEMENT

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

SUPPLEMENTAL INFORMATION

Directions for use

Fill weight: _____ Lot Number _____

Gross weight: _____ Fill Date: _____

Expiration Date: _____

Label Example

New style Label (GHS)

Xyz... Chemical







WARNING
Flammable Liquid and vapor
Harmful if swallowed
May cause damage to organs (liver)
May cause damage to organs through prolonged or repeated exposure (heart)
Suspected of damaging fertility

Keep away from heat, sparks, open flames and hot surfaces - No smoking. Do not breathe vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use protective equipment as required. Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Store locked up in a well ventilated place. Keep cool. Dispose of contents and container in accordance with local, state and federal regulations.

First Aid:
If swallowed: Call a doctor if you feel unwell, Rinse mouth.
If on skin or hair: Remove immediately all contaminated clothing. Rinse skin with water.
If exposed or if you feel unwell: call a doctor.

Fire:
In case of fire: Use water spray foam, dry chemical or carbon dioxide (CO₂) for extinction

GHS Company, 123 Global Drive, Cincinnati, OHtelephone (800) 555-8888

**My Product
Warning!
Cause Skin And Eye Irritation
Suspected of causing cancer by inhalation
Contains: XYZ**

Do not breathe vapors or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling

FIRST AID

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes.
Wash clothing before reuse. Get medical attention if irritation develops and persists.

Company name, Address, Phone number



HAZARDS (Liquid): moderate skin and eye irritant, possible cancer hazard by inhalation

ZZZ Red Paint
Danger!

May damage fertility or the unborn child
Highly flammable liquid and vapor
**Contains lead pigments and cellosolve acetate



Keep away from heat and ignition sources. Keep away from food and drink. Avoid contact with skin and eyes and inhalation of vapor. Wash hands thoroughly after use and before eating

FIRST AID

For skin contact, remove contaminated clothing and wash affected area thoroughly with water. If irritation develops, seek medical attention. For eye contact, immediately flush eyes with flowing water for at least 15 minutes and seek medical attention.

GHS Example PLC, Leeds, England. Telephone 44 999 999 9999

UN 1263 Paint



** Competent Authorities may choose not to require disclosure of ingredient identities on the label of products intended only for workplace use.

Label

- *Label* means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical, that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.
- *Label elements* means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Signal Word

- *Signal word* means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are “danger” and “warning.”
 - “Danger” is used for the more severe hazards,
 - “Warning” is used for the less severe.

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]

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.

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	<p>Flame</p>  <ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self-Reactives• Organic Peroxides	<p>Exclamation Mark</p>  <ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity (harmful)• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none">• Gases Under Pressure	<p>Corrosion</p>  <ul style="list-style-type: none">• Skin Corrosion/ Burns• Eye Damage• Corrosive to Metals	<p>Exploding Bomb</p>  <ul style="list-style-type: none">• Explosives• Self-Reactives• Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none">• Oxidizers	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none">• Aquatic Toxicity	<p>Skull and Crossbones</p>  <ul style="list-style-type: none">• Acute Toxicity (fatal or toxic)

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)

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

(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

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.

Safety Standards

PSM 1910.119(a)(1)(ii)

- HCS 1994

A process which involves a flammable liquid or gas (as defined in 1910.1200(c) of this part) on site in one location, in a quantity of 10,000 pounds (4535.9 kg) or more except for:

- HCS 2012

A process which involves a **Category 1** flammable gas (as defined in 1910.1200 (c)) or a flammable liquid **with a flashpoint below 100 °F (37.8 °C)** on site in one location, in a quantity of 10,000 pounds (4535.9 kg) or more except for:

Safety Standards

Flammable Liquids (1910.106; 1926.52)

Spray finishing using flammable and combustible materials
(1910.107)

Process safety management of highly hazardous chemicals (1910.119;
1926.64)

Hazardous waste operations and emergency response (1910.120;
1926.65)

Dipping and coating operations: Coverage and definitions (1910.123)

General requirements for dipping and coating operations (1910.124)

**Additional requirements for dipping and coating operations that
use flammable liquids or liquids with flashpoints greater than
199.4 °F (93 °C).** (1910.125)

Welding, Cutting, and Brazing (1910.252)

(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

Updated 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

The screenshot shows the OSHA website's "Hazard Communication" page. At the top, there is a navigation bar with "OSHA" on the left, "OSHA QuickTakes" in the center, and "Newsletter", "RSS Feeds", "Print This Page", and "Text Size" on the right. Below this is a secondary navigation bar with "Occupational Safety & Health Administration" and "We Can Help" on the left, and "What's New | Offices" on the right. A third navigation bar contains links for "Home", "Workers", "Regulations", "Enforcement", "Data & Statistics", "Training", "Publications", "Newsroom", "Small Business", and the OSHA logo.

The main content area features the GHS logo (Globally Harmonized System) on the left and the title "HAZARD COMMUNICATION" in large, bold letters in the center. Below the title is the slogan "The standard that gave workers the right to know, now gives them the right to understand." and a link to the "Safety & Health Topics Page: Hazard Communication". Below that are links for "Labeling", "Safety Data Sheets", "Pictograms", and "Effective Dates".

On the right side, there is a "Highlights" box containing a list of links and information: "HCS / GHS Final Rule [PDF 2.33 MB]", "Federal Register: The Final Rule will be filed on March 20th at the Office of the Federal Register and available for viewing on their Public Electronic Inspection Desk. The Federal Register will publish the final rule on March 26, 2012. The effective date of the final rule is 60 days after the date of publication." (with a link to "Federal Register (public inspection)"), "Press Release: US Department of Labor's OSHA publishes final rule to update the Hazard Communication Standard (HCS)", and "Guidance" (with links to "Fact Sheet" and "Quick Cards").

At the bottom left, there is a photo of Dr. David Michaels, U.S. Secretary of Labor, with a caption: "Dr. David Michaels discusses the publication of the Final Rule for Hazard Communication". To the right of the photo is a quote: "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."

Below the quote is a paragraph: "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."

Below this paragraph is the heading "Hazard Communication Standard" and a bolded statement: "In order to ensure chemical safety in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers. OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information:"

At the bottom of the page, there is a "Local intranet" link and a "100%" zoom level indicator.

To Summarize....



Challenge to 1910.1200-2012

- Four industries petitioned federal appeals court week of May 21 to review this rule.
 - American Petroleum Institute (API)
 - American Tort Reform Association (ATRA)
 - CropLife America
 - Coalition of five industry groups including American Chemistry Council (ACC)
- Concerns were over labeling conflicts with FIFRA pesticide labels (CropLife); including combustible dust as an “HNOC” and including it on SDS and labels (ACC); mandatory 20% concentration limit for the classification of chemical mixtures containing target organ toxicity hazards (API)

Challenge

- July, 2012, parties were granted a six-week filing extension in the hopes that a settlement might be reached.
- Two of the three industry groups in the litigation are challenging the inclusion of combustible dust, the third group's filing addresses state preemption.
- Extension has been granted till December, 2012, all groups except the Tort group are in on-going meetings.
- Believe Tort group is going to court.

OSHA Updates

- SVEP (291 cases on log, 167 are construction)
- 5(a)(1): Ergonomics, WPV, Heat
- Wind Energy
- Enforcement Initiatives (Grain handling, Oil/Gas Drilling)
- CSAs (CPL 02-00-152, effective 6/22/11)
- Directives Under Development (HazCom, Shipyard Tool Bag, Isocyanates)
- FOM: IH FOM; Changes to Current

FY 2012

**Top 10 Most Cited Standards
(General Industry)**

- 1. Hazard Communication**
- 2. Respiratory Protection**
- 3. Electrical, Wiring Methods**
- 4. Powered Industrial Trucks**
- 5. Lockout/Tagout**
- 6. Electrical, General Requirements**
- 7. Machine Guarding**
- 8. Personal Protective Equipment**
- 9. Guarding Floor & Wall Openings & Holes**
- 10. Bloodborne Pathogens**

FY 2012

**Top 10 Most Cited Standards
(Construction Industry)**

- 1. Fall Protection**
- 2. Scaffolding**
- 3. Ladders**
- 4. Fall Protection,
Training
Requirements**
- 5. Hazard
Communication**
- 6. Head Protection**
- 7. Eye & Face Protection**
- 8. Aerial Lifts**
- 9. Electrical, Wiring
Methods**
- 10. Excavation, Specific
Excavation
Requirements**

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Questions

