

HCS/GHS Update



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Overview

- International Update
 - UN Sub-Committee of Experts on the GHS
- HCS 2012 Update
 - Guidance
 - Regulatory Agenda



International



UN Sub-Committee



UN Sub-Committee of Experts on GHS 2015-2016 Biennium

The 2015-2016 Biennium ends December 2016

Notable work in this biennium includes:

- Revised physical hazard classes and hazard categories
- Guidance/Clarifications and corrections
- Example of labeling of a small packaging



Work Undertaken During 2015-2016 Biennium

- Flammable Gases
- Combustible Dust
- Precautionary Statements
- Global List
- Small Packages
- Other Issues

Flammable Gases

- Working Paper for the December 2016 meeting proposes updates to
 - Classification criteria
 - Labelling elements
 - Decision Logic

Flammable Gases

Table 2.2.1: Criteria for categorisation of flammable gases

Category		Criteria	
1A	Flammable gas	Gases, which at 20 °C and a standard pressure of 101.3 kPa: (a) are ignitable when in a mixture of 13% or less by volume in air; or (b) have a flammable range with air of at least 12 percentage points regardless of the lower flammability limit. unless data shows them to meet the criteria of category 1B	
	Pyrophoric gas	Flammable gases that ignite spontaneously in air at a temperature of 54 °C or below	
	Chemically Unstable gas	A	Flammable gases which are chemically unstable at 20°C and a standard pressure of 101.3 kPa
B		Flammable gases which are chemically unstable at a temperature greater than 20°C and/or a pressure greater than 101.3 kPa	
1B	Flammable gas	Gases which meet the flammability criteria for Category 1A, but which are not pyrophoric, nor chemically unstable, and which have at least either: a) A lower flammability limit of more than 6% by volume in air; or b) A fundamental burning velocity of less than 10 cm/s;	
2	Flammable gas	Gases, other than those of Category 1A or 1B, which, at 20 °C and a standard pressure of 101.3 kPa, have a flammable range while mixed in air.	

Flammable Gases

Table 2.2.2: Label elements for flammable gases

	Category 1A	Gases categorized as 1A by meeting Pyrophoric or Unstable Gas A/B Criteria			Category 1B	Category 2
		Pyrophoric gas	Chemically unstable gas Category A	Chemically unstable gas Category B		
Symbol	Flame	Flame	Flame	Flame	Flame	<i>No Symbol</i>
Signal word	Danger	Danger	Danger	Danger	Danger	Warning
Hazard statement	Extremely flammable gas	Extremely flammable gas May ignite spontaneously if exposed to air	Extremely flammable gas May react explosively even in the absence of air	Extremely flammable gas May react explosively even in the absence of air at elevated pressure and/or temperature	Flammable gas	Flammable gas

Combustible Dust

- At the December 2015 meeting, agreement that dust explosion hazards [“combustible dust”] would be treated in an annex rather than a new hazard chapter.
- The working group is currently working on a draft of the annex
- At this point, the annex is expected to include
 - Definitions;
 - Identification of combustible dusts (flow chart);
 - Factors contributing to dust explosions (oxidizing atmosphere, influence of temperature and pressure, confinement, ignition sources);
 - Hazard identification, risk assessment and mitigation (protection concepts); and
 - Supplemental information for hazard communication.

Precautionary Statements

- The Working Paper submitted for the December 2016 meeting proposes the following:
 - Rules that permit flexibility in the use of precautionary statements
 - Updates to conditions for use of some precautionary statements
 - Clarification to medical response statements
 - Minor editorial changes

Global List

- The pilot exercise conducted with the OECD on the difficulties involved and resources needed in reaching agreed classifications for three selected chemicals is complete. The participants in the OECD process achieved consensus on each of the three classifications of the chemicals in the pilot project.
- The chemicals are:
 - Dimethyltin dichloride (CAS No. 753-73-1) (ECHA)
 - Dicyclopentadiene (CAS No. 77-73-6) (Russian Federation)
 - Di-n-butyl phthalate (CAS No. 84-74-2) (USA)
- The OECD report on the final draft classification is expected soon

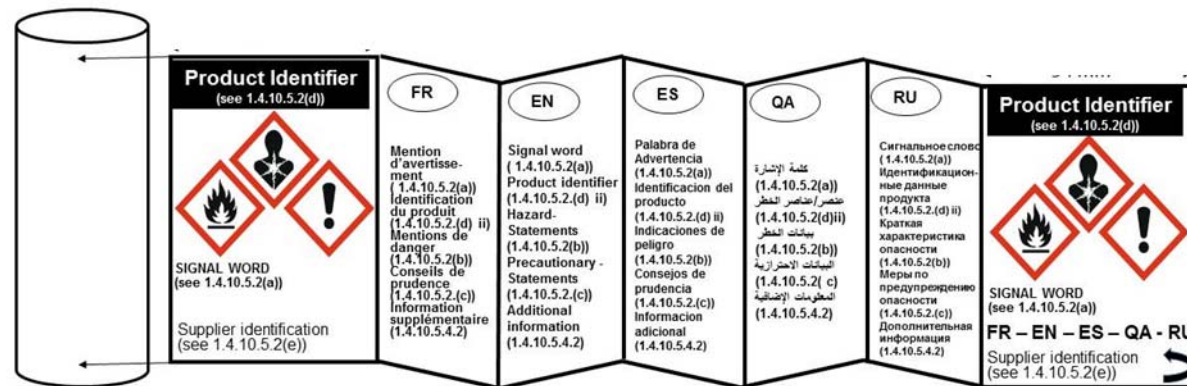
Global List

- The working group noted that classifications adopted by the GHS might have implications for regulations or recommendations prepared by other bodies.
 - To examine these concerns further, the group agreed to include an exercise as part of the pilot project that would simulate the process the Sub-Committee might follow in adopting a classification based on the OECD report.
- An informal paper on the status of the work is expected for the December 2016 meeting.

Small Packages

- The working group continues to work on examples, including those associated with the labeling of kits using multiple containers.
- A working paper is expected for the December 2016 meeting which proposes examples for fold-out labels, including several styles:
 - Accordion
 - Book
 - Order Book
 - Window

Small Packages



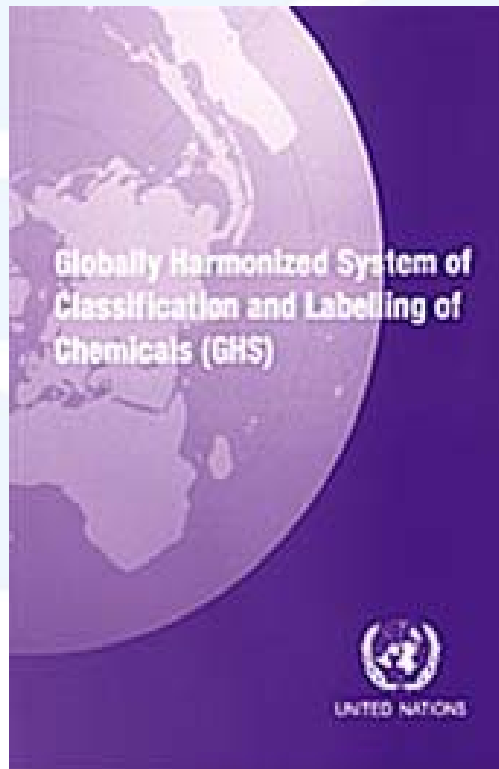
back page
Completely fixed
to immediate
container

front page
wrapped around
the can

Other Issues


- Nanomaterials
 - Thus far, no significant difficulties in applying the GHS criteria to nanomaterials
 - Informal Paper planned for December 2016 meeting
- Practical Classification Issues
 - Proposed to revise hazard class definitions for consistency
 - Concluded definition of UVCBs should not be in GHS
 - Informal Paper planned for December 2016 meeting
- Use of non-animal testing methods
- Classification of AN-based fertilizers
- Revisions to Explosives Chapter

UN GHS Links



- United Nations Economic Commission for Europe GHS Subcommittee
- http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html
- GHS Report from 31st Session:
<http://www.unece.org/fileadmin/DAM/trans/doc/2016/dgac10c4/ST-SG-AC10-C4-62e.pdf>

HCS 2012 Update



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Hazard Communication

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



[Safety Data Sheets](#) ▾ [Labeling](#) ▾ [Pictograms](#) ▾ [Interpretations](#) ▾ [Standards](#) [Guidance](#) [International](#) ▾ [FAQ's](#) [Additional Information](#) ▾

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. 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** [Joint PHMSA OSHA Memorandum on Labeling of Hazardous Chemicals for Bulk Shipments \[PDF\]](#)
- **NEW** [Use of concentration ranges on SDSs FAQ](#)
- [Information on the June 14, 2016 DOT/OSHA Joint Public Meeting in Preparation for the UN Sub-committee meetings in Geneva](#)
- [Hazard Communication: Hazard Classification Guidance for Manufacturers, Importers, and Employers](#)
- [DRAFT Guidance on Data Evaluation for Weight of](#)

Guidance

- Materials in progress:
 - Safety Data Sheet guidance
 - Model Training Program [slides, instructions]
 - US/Canada Fact sheets
- Partnerships
 - American Coatings Association

Regulatory Agenda

Update to the Hazard Communication Standard

- Will consider all updates through Revision 6:
 - Aerosols, Desensitized Explosives, Skin/Eye classification updates
- Discuss other issues that have come up during implementation
 - Shipped versus manufactured dates
- Long-term action



Fall Stakeholder Meeting

- Meeting Purpose is two-fold
 - Discuss rulemaking issues
 - Stakeholder meeting in preparation for UN Meetings
- Will be held at the Francis Perkins Building
 - One-Day meeting planned
 - Will coincide with the date of DOT PHMSA meeting



Questions?



OSHA Information

Websites:

- HCS 2012 Webpage

<http://www.osha.gov/dsg/hazcom/index.html>

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