

The image features the OSHA logo and tagline set against a background of the American flag. The logo consists of a stylized 'O' with a blue and grey circular design inside, followed by the letters 'S', 'H', and 'A' in a white, serif font with a drop shadow. Below the logo, the tagline 'adds value to business, work and life.' is written in a grey, serif font with a drop shadow.

# OSHA

adds value to business,  
work and life.

# Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

*Effects of Implementation on the HCS*

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# What is the GHS??

- **A system that standardizes classification and labeling of chemicals**
- **Logical and comprehensive approach**
- **Proposes specific criteria for**
  - **Classifying hazards**
  - **Labels (pictograms, signal words, hazard statements)**
  - **Safety data sheets**



# GHS



- **Not a model regulation – contains criteria and text**
- **Created as a “building-block” approach**
  - *Each competent authority adopts those provisions applicable to sphere of regulation or need*
- **Covers physical, health and environmental hazards**

# CLASSIFICATION



- ✘ Australia - Harmful
- ✘ Malaysia - Harmful
- ✘ Thailand - Harmful
- ✘ EU - Harmful
- ❖ India - Non-toxic
- ☠ Japan - Toxic
- ☯ Korea - Toxic
- ☠ US - Toxic
- ❖ China - Moderately Toxic
- ☹ New Zealand - Hazardous

**Acute oral  
LD50 = 257 mg/kg**

(Thanks to K. Armstrong, 3M)

WARNING!  
Harmful if Swallowed.

  
HARMFUL  
(Chinese) 吞食後有害

  
Memudaratkan jika ditelan.  
Harmful if swallowed.

  
อันตรายหากกลืนกิน

WARNING!  
Harmful if Swallowed.  
(Nakasama kung malunok.)

  
Harmful if Swallowed.

  
위해관련 문구들 눈에 심한  
손상을 입을 위험 삼키면 유해


  
吞食後有害

警告  
飲み込むと有害性


  
吞食后有害

  
WARNING! or  
Harmful if Swallowed.

  
WARNING!  
Harmful if Swallowed.  
UN 1502; class 6

  
Вредно при  
проглатывании

  
Harmful if Swallowed.  
Nocif en cas d'ingestion.

  
Berbahaya kalau ditelan

  
Harmful if swallowed  
Gesundheitsschadlich beim  
Verschlucken  
Nocif en cas d'ingestion

## Representations of Combined Label Elements - Thanks to K. Armstrong, 3M



# OSHA Modifications to HCS

## *First: What won't change*

- Scope and Application not expected to change
  - Building Block Approach
  - All current exemptions should apply
  - No testing required
- Trade Secrets should remain the same

# Modifications to the current Hazard Communication Standard

## Performance- to specification-oriented

16 Physical Hazard  
Classifications

10 Health Hazard  
Classifications

Designation of Categories of Hazard



Determines Label Elements  
Pictogram – Hazard Statement – Signal Word  
Precautionary Statements  
16-Section Safety Data Sheet

# OSHA & GHS - What's Expected

- Adoption of all health and physical hazards, not all categories of hazard
  - Acute Toxicity, i.e.
- No environmental hazards – OSHA does not have jurisdiction
- OSHA to **present all sections** of SDS, although **no jurisdiction over four** of them

# Modifications to Labels

- **Sample Hazard Statements**

- Fatal if in contact with skin
- Extremely flammable aerosol
- May cause cancer

- **Two Signal Words**

- Danger
- Warning





# Labels Modifications / Changes

ToxiFlam  
TOXIC  
COMBUSTIBLE LIQUID AND  
VAPOR

My Company, My Street, MyTown NJ  
00000  
Tel: 444 999 9999

ToxiFlam (Contains: XYZ)

 **Danger! Toxic If Swallowed, Flammable Liquid and Vapor** 

Do not eat, drink or use tobacco when using this product. Wash hands thoroughly after handling. Keep container tightly closed. Keep away from heat/sparks/open flame. – No smoking. Wear protective gloves and eye/face protection. Ground container and receiving equipment. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Store in cool/well-ventilated place.

**IF SWALLOWED:** Immediately call a POISON CONTROL CENTER or doctor/physician. Rinse mouth. In case of fire, use water fog, dry chemical, CO<sub>2</sub>, or “alcohol” foam.

See Material Safety Data Sheet for further details regarding safe use of this product

MyCompany, MyStreet, MyTown, NJ 00000, Tel: 444 999 9999

- Biggest visible impact: Look of and information required for labels
- Signal Words, Pictograms
- Precautionary Statements
- Appropriate Hazard Warnings versus Hazard Statements

# Changes to other OSHA Standards

- HCS provides definitions for some other OSHA standards
- Agency has reviewed all standards to determine impact:
  - No effect
  - Changes to reflect GHS terminology
  - Changes to language without changing scope

# Changes to other OSHA Standards

- Possible changes to reflect GHS terminology
  - Substance-specific standards and workplace signs
- Changes to language maintaining scope
  - PSM (29 CFR 1910.119) in part relies on HCS for scope: flammables
  - Propose change to PSM language without changing scope
  - Similar changes to other OSHA standards

# PSM example of changes to text of OSHA standards:

## Current 1910.119(a)(1)(ii)

A process which involves a flammable liquid...**(as defined in 1910.1200(c) of this part)** on site in one location in a quantity of 10,000 pounds (4539 kg) or...”

## Changes to PSM under GHS

A process which involves...a flammable liquid **with a flashpoint below 100 °F (37.8 °C)** on site in one location, in a quantity 10,000 pounds (4535.9 kg) or...

# Common Misconceptions

- Adopting an “EU” regulation
  - Delegating rulemaking authority to the EU
- Modifications will require re-evaluation of personal protective equipment and respirators

# Common Misconceptions

- Testing or re-testing will have to be conducted
- Hazard communication programs will have to be re-written
- Training will have to be redone on every chemical

# How does this effect organizations?

- **Manufacturers** – Greatest burden, but also biggest benefits
  - Classification of chemicals
  - Initial start-up costs
  - Decrease in cost of providing hazard information
- **Employers**
  - Initial employee training on pictograms, hazard statements and signal words
  - Minimal training on new SDS format
  - Filing of new SDSs
- **Employees**
  - Workplace training should be beneficial outside of the workplace

# Benefits

- **All domestic and international systems:**
  - Using the same definitions of hazard for the same chemical
  - Providing the same basic information on labels
  - Providing the same SDS format
- **Protection/Health & Safety**
  - Reduce confusion/Increase comprehension of hazards
  - Better downstream risk management
  - Facilitates training
  - Helps address literacy problems
- **Trade/Economic**
  - Multiple Regulations (domestically, internationally)
  - Burden of Compliance
  - Small/medium enterprises may be precluded

# Current rulemaking status...

- Advanced Notice of Proposed Rulemaking was published on September 12, 2006
  - Received over 160 comments:
    - Majority were favorable: enhance protection, streamline training, reduced cost, facilitate trade
    - Concerns: cost of implementation, phase-in timing, impact on other standards, outreach
- Peer review of the Preliminary Economic Analysis November 2007

# Status...

- Completed Draft Proposal
- Current Unified Agenda: OSHA to publish Notice of Proposed Rulemaking  
*December 2008* (<http://www.reginfo.gov/public>)

# What's Next?

- Publication of proposal
- Comment period
- Informal public hearings
- Compliance Assistance Planning
- Publication of Final Standard based on comments

# Questions??

