



Global Harmonization System (GHS) - Are You Ready?

FACT SHEET 59-026-1210

What is GHS?

The Globally Harmonized System (GHS) of Classification and Labeling of Chemicals is an international system developed to provide consistent guidelines to categorize human health and environmental hazards and standardize the way hazard information is communicated on labels and safety data sheets.

The GHS covers all hazardous chemicals including pure substances and mixtures. Implementation in the U.S. would unify hazard definitions and label information among regulatory agencies (e.g., Consumer Product Safety Commission, Department of Transportation, Environmental Protection Agency, Occupational Safety and Health Administration (OSHA) etc.) that have different regulations based on the end user.

Hazard Communication





OSHA is the Federal agency most impacted by GHS due to its regulatory requirements for employers to inform workers of the potential chemical hazards to which they are exposed when working. This protection is provided by the Hazard Communication Standard (HCS). OSHA is proposing to amend the current HCS to align with the provisions of the GHS. There is other guidance in GHS related to the environment and transportation; however, OSHA has no authority in these areas and therefore will not be adopting those parts of the GHS that are not under its jurisdiction. A two-year transition period is proposed for training and a three-year period for full implementation.

The two agencies responsible for the environmental and transportation are EPA and DOT. The environmental portion falls under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); this makes EPA responsible for registering pesticides, including the review and approval of pesticide labels. Currently EPA is in the process of developing a GHS implementation strategy. The DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates the transportation of hazardous materials. PHMSA has implemented elements of the GHS that directly affect the transport sector such as changes to the hazard classification criteria for toxic materials and flammable liquids.

Major Proposed Changes to the HCS:

- Hazard classification
 - Incorporate specific criteria for the classification of health and physical hazards
 - Establish a process for classifying mixtures
- Labels include standardized
 - Signal words ("Danger" and "Warning")
 - Pictograms (symbols in a red diamond)
 - Hazard statement for each hazard class and category (brief phrases that describe the nature of the hazard)
 - Precautionary statements (brief phrases that describe measures to minimize or prevent adverse effects)

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Pictogram					No Symbol
Signal word	Danger	Danger	Danger	Warning	Warning
Hazard statement	Fatal if swallowed	Toxic if inhaled	Causes severe skin burns and eye damage	May cause respiratory irritation	May cause drowsiness or dizziness
Precautionary statement	Call a poison control center or doctor	Move person to fresh air	Avoid contact with skin and eyes	Use NIOSH approved respiratory protection	Use only in well ventilated areas

- Safety Data Sheets (formerly MSDSs), follow a comprehensive 16-section format
 1. Identification
 2. Hazard(s) identification
 3. Composition/ information on ingredients
 4. First-aid measures
 5. Fire-fighting measures
 6. Accidental release measures
 7. Handling and storage
 8. Exposure control/personal protection
 9. Physical and chemical properties
 10. Stability and reactivity
 11. Toxicological information
 12. Ecological information
 13. Disposal considerations
 14. Transport information
 15. Regulatory information
 16. Other information
 - Information and training
 - GHS does not address training; however, the proposed HCS will require that workers are trained within two years of the publication of the final rule.

Implementation

The ultimate benefit of adopting the GHS format would be to better communicate a product's hazard information and ensure its safe use. There is no international implementation schedule for the GHS. However, several countries have already adopted the GHS model and many others are in the process of transitioning from their existing system to the GHS. Once a company begins importing chemicals from countries that have already implemented GHS, employees will need to be trained on both systems until the transition is complete.

References: United Nations. 2009. A Guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)