The Globally Harmonized System (GHS) is a hot topic of discussion, both domestically and internationally. While GHS has historically focused on the international community with early adoption by the European Union and Japan, the GHS trend is moving west and will definitely be in the spotlight in the U.S. in 2012. GHS has already had and will continue to have profound effects on chemical data management initiatives, both for companies that must author and publish material safety data sheets (MSDS) for their chemical products, as well as those companies that must manage (M)SDS and related chemical data for onsite chemical inventories.

With all of the information and change swirling about GHS, we're presenting "just the facts" in this easy-to-digest Infographic about what you need to know about GHS. Enjoy and share with your colleagues in and out of the EHS profession!

Beginning in 2012, the United States and several additional countries around the globe will transition to GHS. Many other regions such as the EU and Japan have already adopted it. What is GHS, and why should you care? To put it simply, **GHS is a standardized system of classifying and labeling hazardous chemicals.** This ground breaking effort will have major implications on the safety, welfare, and environment for the entire world working with chemicals.
Why do we need GHS?
Without GHS, every country has a different system for communicating chemical-hazard information, with little or no consistency among the systems. GHS is needed to:

- Make all systems consistent for workers handling hazardous chemicals
- Reduce costs to governments and companies complying with different systems
- Enable better communication of chemical information
- Protect workers
- Increase international trade

What are the end goals of GHS?
The basic goal of GHS is to standardize the classification rules for hazards, as well as safety data sheets (SDS) and chemical labels.

The aim is to create a system that can be utilized as needed by countries using a building-block approach, or à la carte style.

GLOBAL ADOPTION
Adoption of GHS began back in 1992 when UNICED required a standard practice for labeling chemicals. After 20 years of research, committee meetings, and public hearings, a three-year implementation is scheduled to begin in the US in 2012.
Just The Facts About GHS (Infographic)

Canada
- Proposed changes to legislation are expected in 2012. A clear implementation deadline has not been identified.

Mexico
- Published a non-mandatory national standard on June 3, 2011, based on the third revised edition of the GHS.

Australia
- Implementation based on GHS Rev. 3 expected by 2012.

New Zealand
- Full compliance (MSDS and label) required as of Dec. 31, 2010.

Japan
- As of Dec 31, 2010, full compliance with MSDS and labels in GHS format is required.

Korea
- Deadline for classification of existing chemicals was June 30, 2011, for substances, and June 30, 2013, for mixtures.

ADOPTION IN THE U.S.

The United States is busily preparing to start transition to GHS in 2012.

Number of Safety Documents Affected
- 1,000,000 documents for about 1,000,000 chemicals

Number of Companies Affected
- 5 million+ workplaces

Number of People Affected
- 40 million+ workers

Number of Years to Transition
- 3 years from final ruling - However, training must be completed in 2 yrs
Just The Facts About GHS (Infographic)

Cost of Adoption

$97M per year (total)

$44M - Implementation and Oversight
$42M - Training
$11M - SDS Preparation

Safety Outcomes

Prevention of 43 fatalities and 585 injuries and illnesses per year.

Money saved from these reductions = $266 million per year

Cost Savings

Cost reductions + productivity improvements = $585 million per year

OSHA estimates a net annual savings of $754 million per year from proposed revisions.

What does all this mean? It means that implementing this program only costs 12.8% of the savings per year.

WHAT’S CHANGING? 5 Areas Affected by Change

1. The new SDS will contain the following 16 sections:

- Identification
- Hazard(s) identification
- Composition/information on ingredients
- First-aid measures
- Fire-fighting measures
- Accidental release measures
- Handling and storage
- Exposure controls/personal protection
Just The Facts About GHS (Infographic)

2. Classifications

Label ratings are inverted

OLD
1
2
3
4

NEW
4
3
2
1

In current NFPA or HMIS rating systems, “4” is the worst rating, and “1” is the best.

However, in GHS nomenclature, “category 1” is the worst.

This can cause confusion during training, which may draw the process out.

3. Labels

There are two signal words in the GHS system: danger and warning. These signal words are used to communicate the level of hazard on both the label and the SDS.

Name

MSDS → SDS

MSDS is now SDS (Safety Data Sheet)

Classifications

CATEGORY II
Acute Toxicity
Skin Corrosion
Respiratory

CATEGORY III

CATEGORY IV

CATEGORY I

Standardized GHS pictograms developed - shown with example hazard:

- Flammable
- Explosive
- Oxidizer

HOW CAN COMPANIES PREPARE FOR A SUCCESSFUL GHS TRANSITION?

1. Get prepared and be on the lookout for new GHS information.
2. Check implementation dates in your country, plus any you do business with.
3. Create a transition plan for your company.
4. Perform a chemical inventory to validate the chemicals actually present.
5. Put together a plan to acquire, update, and manage the new incoming SDS documents.
6. Update workplace labels according to new regulations.
7. Schedule employee training on new GHS approaches.
Want to learn more? Download our GHS Transition Guide or view our GHS Webinar Series.

Sources:

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