

GHS Transition Guide for the Downstream Workplace



GHS ramifications are far-reaching and as a result there is much for which to prepare. Some have described the transition to GHS in cataclysmic terms such as “avalanche” or “tidal wave”. However, if the appropriate tools are in place to handle the transition, the volume and scope of change ahead will not be as daunting.

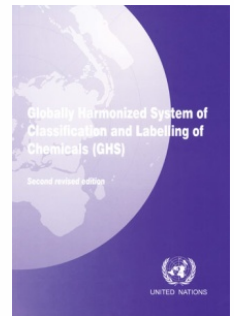
This guidance document describes best practice methods to guide your company through the transition to GHS as an employer. These methods will ensure many positive outcomes are easily and naturally achieved; such as centralized access to hazard information and increased productivity, in addition to GHS compliance. Information describing how 3E’s services can help navigate a company through this transition is also provided.

GHS Overview

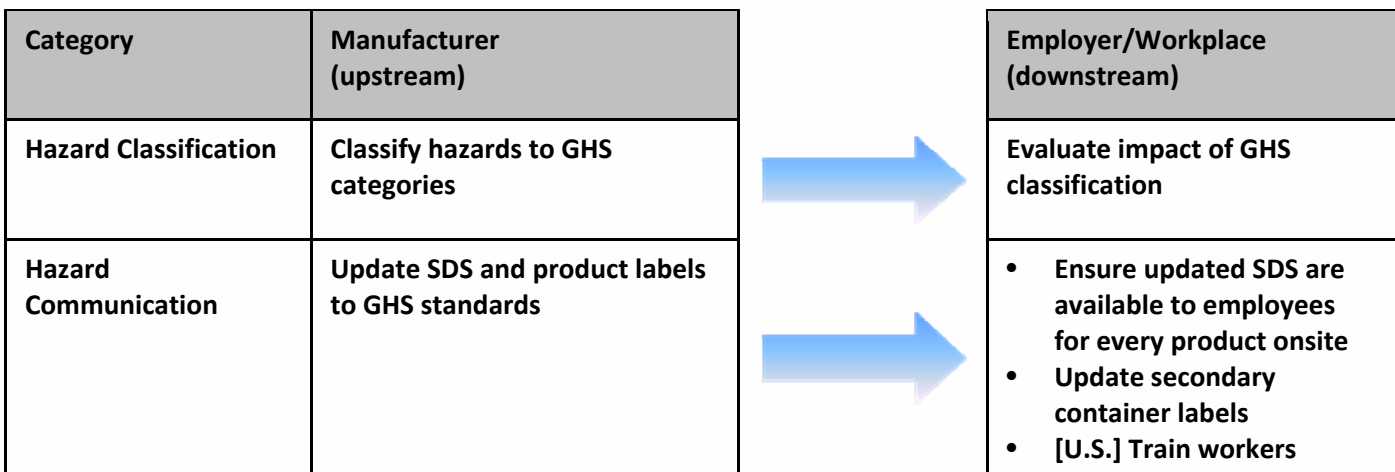
The Globally Harmonized System of Classification and Labeling of Chemicals, or GHS, was developed by a United Nations committee of experts. It was developed to facilitate international trade through standardization of classification and labeling of chemicals, and to improve the overall clarity of hazard information available.

GHS itself is not a regulation. Instead, it is an internationally recognized, harmonized method to classify hazards, and communicate those hazards throughout the supply chain. Regulatory authorities, such as United States’ OSHA, and Canada’s Health Canada, can take the UN standard and implement it through their national regulatory processes. For this reason, variations still remain between countries but “harmonization” is closer than ever before.

UN Purple Book



GHS Responsibilities in Simple Terms



Impact of GHS Classification

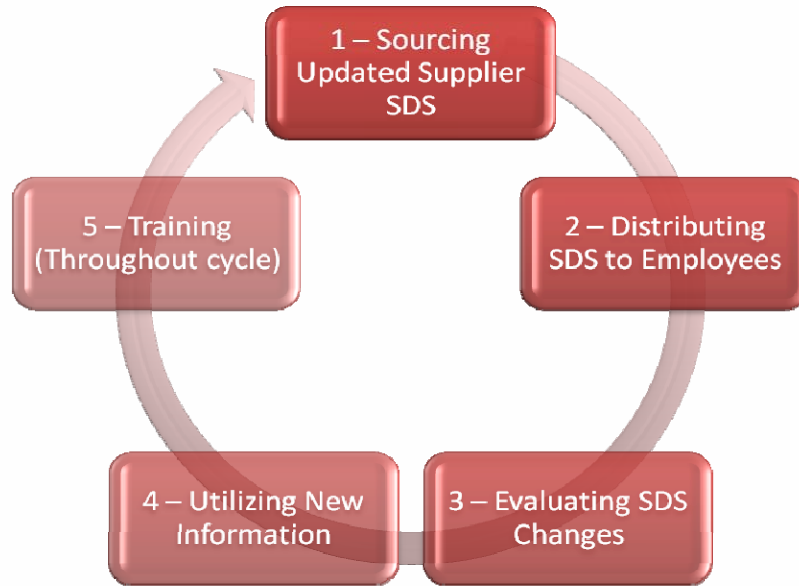
GHS introduces a set of criteria for categorizing the human health, physical and environmental hazards of hazardous substances. Previous to GHS, a substance could have been classified as toxic, non-hazardous or harmful to health depending on which country/tracking block the classification has been made (Canadian WHMIS, EU DPD, etc.). GHS harmonizes these different systems, meaning that new classification criteria could create a higher, lower, identical, or new classification for a product compared to the previous system. The medium used to convey this new information to a company down the supply chain is an updated SDS received from a supplier.

This table analyzes impacts resulting from the GHS classification of a supplier product. A major benefit of GHS's adoption worldwide is less variance in product classification between countries.

Category	Impact	Action
Purchasing	Product classification impacts purchasing decisions as it relates to storage, PPE, disposal, finished goods, and training requirements, amongst others.	<ul style="list-style-type: none"> Alternative, less hazardous purchase choices might be required Products deemed more hazardous may face onsite quantity limitations GHS information can be funneled into the emerging sustainability and green purchasing strategies to help companies buy less toxic and harmful products
Raw Material Reclassification	Finished goods may become more/less hazardous to manufacturer and transport	<ul style="list-style-type: none"> Monitor restrictions for placing on a market – especially if a raw material is newly classified as carcinogenic, mutagenic, or toxic to reproduction Reformulation might be required to maintain a finished good's hazard category
Regulatory Reporting	Changes to hazard classifications can mean additional regulatory reporting responsibilities – For example, a new 'carcinogen' may create reporting needs for California's Prop65 list, or Germany's TRGS 905. Only time will tell.	Knowledge of regulatory lists will be required to capture impact.
Waste Disposal	Product reclassified as more hazardous	Waste management programs need to consider the concentrations of any newly classified "dangerous substances" after being used or stored so it is disposed of appropriately.
Stakeholder Awareness	GHS classification is very different from current methods used within each country.	Stakeholder awareness and training will be necessary to educate people how to understand the new information, and impacts. Companies need to ensure that a substance used or sold across business units or geographies is classified and labeled the same way, and the same standards of chemical handling and storage are followed.
Risk Assessments and Workplace Safety Cards (Europe)	<ul style="list-style-type: none"> Product reclassified as more hazardous SDS contains new/improved information, such as first aid and precautionary measures. 	New risk assessment may need to be written to identify the chemical-related hazards and incorporate new risk reduction measures.

GHS Transition Guide

3E has developed a five step program which outlines best practices when developing a GHS transition strategy. These steps are cyclical as information will continue to be added and updated as this new requirement is implemented.



Step 1: Sourcing Updated Supplier SDSs

Prior to GHS implementation, the first step of any SDS management program is sourcing relevant SDSs for all hazardous products onsite.

What should your company be doing?

1. Inventory preparation - Accurate inventory management is the cornerstone of any comprehensive SDS management program. Ensure you know what products on your shelves, and that each one has a corresponding SDS.
2. Make a note of the current classification, labeling and packaging of each substances and mixture. This is important information as it needs to be compared with new GHS classifications when available.
3. Create a schedule to begin contacting suppliers to request updated documents. Suppliers may send you updated SDSs, even if you have not placed a new order, so keep a note of these incoming documents to eliminate redundant efforts.

How can 3E help?

1. 3E Online is a web based application, which enables accurate product inventories for each company location. 3E's team of experts will link each of those products to the associated SDS using one of many sourcing methods. 3E has decades of supplier relations experience, with refined processes for retrieving SDS.
2. 3E Online consolidates related product data; key product information, including all GHS fields, is extracted from each SDS and centrally stored for every product.
3. 3E's SDS updating services involve working with tens of thousands of suppliers to ensure 3E Online subscribers have access to the most up-to-date SDSs. Our objective is to transfer as much of this labor intensive work from our clients to our teams.

Step 2: Distributing SDS to Employees

The second step in the cycle is distributing SDSs throughout your company, especially to employees.

What should my company be doing?

1. SDSs should be stored in paper and/or electronic repositories which are easily accessible by employees. Having SDSs organized in a centralized repository from which each department or location can pull documents will help increase productivity by removing workload duplication. It also yields consolidation and transparency of information across departments and locations.
2. Implement a process to quickly update repositories as new or updated SDS come onsite. This could mean photocopying the new SDS and manually putting it into paper binders throughout a plant, or loading it into a local or centralized electronic system.
3. Prepare repositories and update employee procedures to handle increased volume of incoming GHS SDS from suppliers during transition period.

How can 3E help?

1. 3E Online centralizes all SDSs into one repository, accessible by all employees, and available 24/7/365 from any Internet-enabled computer, or smart phone/smart pad.
2. Updated SDSs are seamlessly added to this repository by 3E in the background.
3. Labor-intensive effort required to manage increased volume of incoming SDSs is handled by 3E.

Step 3: Evaluating SDS Changes

Upon implementation of GHS, the third step in the cycle is to review the new SDS with GHS information and compare with previous versions to evaluate changes.

What should my company be doing?

1. Before any information can be compared and evaluated, you will need to put in place a structured, streamlined process for extracting and viewing old and new information.
2. Once this is in place, information can be evaluated from each SDS to see if the re-classified products will have any ramifications. The United Kingdom's Health and Safety Executive (HSE) calculated that it requires an employee 1 hour to review the labels and SDS for each product. This equates to a large expenditure of time and money when performed manually.

How can 3E help?

1. 3E can provide teams of highly-skilled multilingual specialists to extract and index up to 20 data elements (including GHS) from each SDS using strict quality control procedures.
2. That information is loaded into 3E Online in order for it to be accessed through many tools, including data comparison reports which highlight information that has changed between versions. Email notifications will alert subscribers that the new SDS has been loaded into 3E Online.

Step 4: Utilizing New Information

The fourth step in the cycle is utilizing the new information.

U.S. OSHA label into GHS label

What should my company be doing?

1. GHS information was created to improve hazard information available to employees. Exposing this simplified text to employees as much as possible helps improve employee safety through improved understanding of hazards and required precautionary measures.
2. All containers should be appropriately labeled. As you move a product from its primary container to a secondary container, labels should be replaced.
3. Keep abreast of regulatory reporting needs for all products. Regulatory lists never stop evolving. This, mixed with the classification changes of your products, means an extra stringent eye is required to ensure you are aware of all regulatory responsibilities.

"A" Components for Pressure Pour

Health	2*
Flammability	1
Reactivity	1
PPE	B

4 - Severe
3 - Serious
2 - Moderate
1 - Slight
0 - Minimal

Dox Chemical
181 West Oak Parkway, Marietta, Georgia 30062-2211, United States
Phone: 800.636.4742

Refer to (M)SDS for more details

"A" Components for Pressure Pour
and (M)SDS for more details

Danger

Hearing may cause a fire.
Corrosive liquid.
May cause damage to organs through prolonged or repeated exposure.
Harms public health and the environment by destroying ozone in the upper atmosphere.
May cause damage to organs through prolonged or repeated exposure to air contact.
Contains acutely toxic: May produce an allergic reaction.

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Do not handle the unit of safety procedures have been read and understood.
Keep away from heat/spark/open flame/hot surfaces. - No smoking.

Regulatory Label Information
For further information on this product, see Safety Data Sheet.

Contents:
Hexamine acid, poly(methylmethacrylate) ester in Benzene, 1,1'-methylenebis(4-cyanobenzene).

Dox Chemical
181 West Oak Parkway, Marietta, Georgia 30062-2211, United States
Phone: 800.636.4742

How can 3E help?

3E provides evaluation and activity tools to incorporate GHS information into your standard activities. A subset of these tools is listed here to provide some examples:

1. All GHS classification and labeling fields are populated into 3E Online for employees to read and managers to analyze, such as multiple reports that extract GHS information per product.
2. GHS formatted label templates are available, and can be modified and created in a variety of sizes from 8 labels per page up to 1 full page label, using standard Avery stationary sizing.
3. Regulatory lists can be checked against products within each location to identify those that contain substances on global regulatory lists, such as Prop 65 and the European Reach Annexes.

Step 5: Training

The fifth step in the cycle is to educate.

What should my company be doing?

There are three different groups that require training.

1. **Self educate:** First and foremost, it is vital to ensure that you are familiar with the downstream responsibilities under GHS. Only then will you be in a position to educate other people. GHS is updated regularly, and it is vital to understand new impacts.
2. **Educate Employees:** Employees should be trained to become comfortable with GHS tasks such as:
 - Where to find information on new GHS-formatted SDS and labels
 - How to interpret GHS information. For example, in the United States, GHS classification ratings showing the order of severity are the opposite of current NFPA, HMIS classifications:
 - GHS (1 most severe, 4 least severe)
 - HMIS/NFPA (4 most severe, 1 least severe)
 - Nomenclature changes – for example, in the United States, “MSDS” is replaced with “SDS”, and in the European Union, “preparation” is replaced with “mixture”.

(Step 5: Training – Continued)

3. **Educate Customers:** Manufacturers, wholesalers, and retailers may play a voluntary role in educating customers as customers navigate new information coming through the supply chain. Classification clarification may be required for the products they are buying.

Note:

- o While training has been segmented into its own section for explanatory purposes, training is required throughout the transition, so apply this training methodology accordingly.
- o If your workplace is located in a country that has not implemented GHS, and imports from countries that have implemented GHS, GHS information may appear sooner than expected, which will require earlier training.

How can 3E help?

1. 3E is an extremely valuable resource when it comes to regulatory expertise. Our teams of professionals have deep domain knowledge and many are recognized as industry thought leaders, as evidenced by our industry awards. 3E offers a series of free, educational tools designed to educate EH&S professionals on the latest issues and topics affecting the EH&S profession. Web seminars, regulatory news feeds, whitepapers, and articles are just some of the tools available to you.
2. 3E Online provides the important repository of up to date/current product information that becomes the foundation of any training program. Alerts will advise you when an SDS has been updated with new information, which can act as a catalyst to your training responsibilities.

3E Online News and Events

Ariel Regulatory News
<input type="checkbox"/> EU Extends Review Period Concerning German Limits on Chemical Substances in Toys Read More
<input type="checkbox"/> China published a trial version of Technical Requirement Guidance for new chemicals Read More
3E Webinars
Is your MSDS Management System ready for GHS read more...
Achieving EH&S, GHS and Security Compliance in Research Labs with Optimized MSDS and Regulatory Data! read more...

Following this five step program will help ensure GHS information is sourced, distributed, evaluated, utilized, and understood within the workplace.

Housing substance-level data in a centralized, electronic system represents a best practice for integrated, modern EH&S management. There is immediate ROI in streamlining operations by automating and centralizing paper-based systems. Additionally, 3E's full service approach to SDS Management provides critical SDS revision maintenance which will you save time and effort, especially during this transition.

For more information:

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