White Paper

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What You Really Need to Know About GHS: A Practical Guide to Navigating the MSDS to SDS Transition

In early 2012, OSHA revised its Hazard Communication Standard, aligning it with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) — a worldwide system for standardizing and harmonizing the classification and labeling of chemicals.

"Revising OSHA's Hazard Communication Standard will improve the quality, consistency and clarity of hazard information that workers receive, making it safer for workers to do their jobs and easier for employers to stay competitive in the global marketplace."

— Hilda L. Solis
U.S. Secretary of Labor

GHS is a comprehensive approach to defining health, physical and environmental hazards of chemicals; creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDSs).

OSHA notes that GHS itself is not a regulation or a standard. The GHS document establishes agreed hazard classification and communication provisions with explanatory information on how to apply the system. The elements in GHS supply a process for meeting the basic requirement of any hazard communication system, which is to decide if the chemical product produced and/or supplied is hazardous and to prepare a label and/or Safety Data Sheet as appropriate.

"OSHA's 1983 Hazard Communication Standard gave workers the right to know. This update will give them the right to understand, as well."

— Dr. Michaels, Assistant Secretary of Labor for Occupational Safety & Health

Regulatory authorities in countries adopting GHS will therefore take the agreed criteria and provisions, and implement them through their own regulatory process and procedures, rather than simply incorporating the text of GHS into their national requirements. The GHS document provides countries with the regulatory building blocks to develop or modify existing national programs that address classification of hazards and transmittal of information about those hazards and associated protective measures. This helps to ensure the safe use of chemicals as they move through global supply chains and "cradle to grave" product life cycles.

A lot has happened since 2012. The transition to GHS is nearing in the United States, with key target dates imminent for chemical manufacturers, blenders, distributors, end users and other employers to meet the requirements set out by OSHA. Although numerous chemical manufacturers — which include raw material suppliers — and other upstream companies, such as blenders, are already at work in re-authoring Material Safety Data Sheets (MSDSs) into SDS documents, confusion remains for downstream chemical users relating to compliance and enforcement of the standard. Misinterpretations of OSHA's enforcement of the GHS standard have resulted in uncertainty and a sense of a relatively "unharmonized" response.

This white paper is designed to provide downstream users with a best practice guide for navigating the GHS transition in the United States. It will outline the current state of affairs, examining both upstream manufacturers and downstream users. In addition, it will summarize current enforcement expectations, highlighting what will and won't be enforced, and provide actionable due diligence best practices to deliver peace of mind during the transition.

Current State Of Affairs With GHS In The U.S.

"Revising OSHA's Hazard Communication Standard will improve the quality, consistency and clarity of hazard information that workers receive, making it safer for workers to do their jobs and easier for employers to stay competitive in the global marketplace," said U.S. Secretary of Labor Hilda L. Solis at the time of the U.S. adoption of GHS.

"OSHA's 1983 Hazard Communication Standard gave workers the right to know," said David Michaels, Assistant Secretary of Labor for Occupational Safety and Health at the time. "This update will give them the right to understand, as well."

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— Betty Hicks, Director of Operations for SafeTec

By June 1, 2016, all U.S. employers using chemicals must be fully compliant with GHS requirements. However, the deadline for meeting GHS requirements for chemical manufacturers and blenders is one year earlier — June 1, 2015. The details of these requirements will be covered next.

The Current State Of Affairs For Manufacturers

Unfortunately, the influx of SDSs from manufacturers has yet to appear. Many industry observers felt there would be a gradual transition by manufacturers from MSDSs to SDSs beginning in 2014. However, this has not been occurring. Observers then forecasted a huge influx of SDSs to occur by early 2015, yet this also is not happening. There are many manufacturers, especially in certain industries, that have created GHS-compliant documents, but are waiting for the deadline to release the documents. It is expected that an influx of these documents will appear closer to the deadline, although with manufacturers largely remaining silent in this area, if there is a large influx closer to the deadline, blenders simply won't have time to respond.

Organizations such as SafeTec (www.safetec.net), which maintain electronic libraries of safety data sheets on behalf of SMB and enterprise organizations, have reached out to manufacturers for status of delivery or availability of updated sheets to SDSs. SafeTec targeted the top 50 manufacturers within its database, and most manufacturers responded that, while they don't have the documents available now, they will be ready by June 1, 2015.

Why haven't manufacturers been more proactive in creating the new SDS documents? There are several reasons, according to Betty Hicks, Director of Operations for SafeTec. "One is that, despite the fact that GHS has been around for a long time in other countries, a lot of manufacturers in the U.S. continue to remain somewhat unfamiliar with it," she said.

Adding to the challenge is the fact that there are many SMB manufacturers in the United State, and unlike larger enterprise organizations, they often don't have the regulatory expertise on staff to dive deeply into GHS.

"Third, there was a petition sent to OSHA by a number of industry groups seeking a delay on enforcement implementation dates, and manufacturers expected this to be approved," she said. "However, it was not." (See below for more information on the petition.)

As a result, despite manufacturer claims that they will have all required GHS/SDS documentation available by June 1, 2015, it is likely that many will struggle to meet this deadline as completion of sheets is dependent on the flow of information upstream.

"The rulemaking process requires considerable time and agency resources. It is unlikely that any new rulemaking could be concluded by June 1, 2015, and therefore would not provide the relief your request seeks."

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The Current State Of Affairs For Blenders

The fact that upstream manufacturers do not seem to be planning to provide SDSs in totality prior to the June 1, 2015, deadline presents some challenges, especially for blenders.

There will be a new SDS for each chemical at the primary manufacturing level. However, blenders use a number of different chemicals to make their products. Again, OSHA has said it expects every manufacturer to be releasing new SDSs by June 1, 2015.

As a result, the blenders can find themselves between a rock and a hard place. They must be able to rely on the manufacturer's new SDSs in order to author new SDSs for their own blended products. Yet, blenders too are expected to meet the same June 1, 2015, deadline. It is unlikely there will be be enough time.

The Current State Of Affairs For Users

Many if not all downstream users believe that all of their existing MSDS documents must be replaced exactly by the target date. That is, by June 1, 2015, the date by which all manufacturers must be releasing SDSs to the marketplace, there is a belief among many downstream users that they will need to have those new SDSs on that very day. Fortunately, as explained below, this is not the case.

Clarifications On OSHA's Enforcement Stance

OSHA has said it will show discretion to manufacturers, blenders and end users during the transition.

Impact On Manufacturers And Blenders

In August 2014, as a result of the concern of their members to be able to receive SDSs from chemical manufacturers in time to create their own SDSs by June 1, 2015, nine industry organizations sent a petition to OSHA and asked for a two-year extension.

In October 2014, OSHA responded to the chemical manufacturers' petition with a letter stating that an extension was denied. "The rule-making process requires considerable time and agency resources," Michaels said. "It is unlikely that any new rule making could be concluded by June 1, 2015, and therefore would not provide the relief your request seeks."

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— Dr. Michaels, Assistant Secretary of Labor for Occupational Safety & Health

However, Michaels did add that companies represented by the associations filing the petition, as well as other formulators, will not have to fear penalties under the requirements of GHS, as long as they can demonstrate "good faith efforts" to comply with the standard. In responding to the petition, Michaels noted, "Our policy allows us to consider barriers to the downstream flow of information that is beyond their control. OSHA is able to use its enforcement discretion when compliance staff consider whether formulators and manufacturers have performed their due diligence and made good faith efforts to obtain necessary information to comply with the June 1, 2015, deadline."

Michaels also stated that to ensure that they aren't penalized, companies should document all efforts to obtain the required information, including attempts to contact suppliers, make reasonable efforts to find suppliers that can provide timely and accurate classifications, and make reasonable efforts to find the necessary data themselves.

"OSHA plans to provide guidance to regional and area offices to ensure this policy is uniformly applied to individual situations," Michaels added. "The agency intends to apply the same approach to distributors that can demonstrate that they have received chemicals under this policy."

It is important to note that this is OSHA's guidance, not a firm rule. As such, it is based on the discretion of the auditor. Therefore the best option is to plan for compliance and not have to rely on the auditor's discretion.

Impact On Users

For users, OSHA stated that if a user has trained its employees on the differences between MSDSs and SDSs, then until such time as the user makes a new purchase and can thus obtain a new SDS from a manufacturer, the user can continue to use the most recent MSDS received from the manufacturer. (OSHA's deadline for this employee training to have taken place was December 1, 2013.) That is, downstream users do not need to proactively replace all MSDSs with SDSs immediately, as long as employees have been trained and documented efforts have been made to source updated SDSs. What is important to OSHA is that employees understand (via training) both the MSDS and SDS documents, help to protect them in the case of a spill, exposure or other. The key point is that, employers must show due diligence based on new shipments beyond June 1, 2015. (See below for a discussion of due diligence requirements.)

BREAKING NEWS

In February 2015, the Government of Canada published the "Hazardous Products Regulations" (HPR), which modified the 1988 "Workplace Hazardous Materials Information System (WHMIS) to incorporate the "Globally Harmonized System of Classification and Labelling of Chemicals" (GHS) for workplace chemicals. This revised document is now known as WHMIS 2015. The Controlled Products Regulation (CPR) and Ingredient Disclosure List have been repealed.

In order to provide Canadian suppliers (which includes manufacturers, importers, and distributors), employers and employees time to adjust to WHMIS 2015, there is a transition period:

- Between now and May 31, 2017, manufacturers and importers must comply with either CPR or HPR requirements. From June 1, 2017 forward, they must comply with HPR requirements.
- Between now and May 31, 2018, distributors must comply with either CPR or HPR requirements. From June 1, 2018 forward, they must comply with HPR requirements.
- Between June 1, 2017 and November 30, 2018, employers must comply with either CPR or HPR requirements. From December 1, 2018 forward, they must comply with HPR requirements.

Best Practices For Navigating The Transition

So what can manufacturers, blenders and end users do to navigate the transition to GHS requirements?

Best Practices For Manufacturers And Blenders

As noted earlier, OSHA's requirement to meet GHS standards is posing a significant challenge for manufacturers and blenders. As a result, before the June 1, 2015, deadline, manufacturers will need more assistance and expertise around GHS, including authoring help for the new SDSs, which likely will need to come from the outside. And before the June 1, 2015, deadline, blenders also will need more authoring help.

It is not feasible for manufacturers to hire and create huge authoring teams just for this one deadline and then disband the teams afterwards. In addition, a large number of qualified and available authors isn't available. Instead, manufacturers can use one of the two authoring strategies:

The first is Outsourced Authoring — both software and services. Manufacturers that do not own an SDS authoring platform can send their documentation needs to an outside software company for the authoring, thus completely outsourcing the process. "In general, the smaller manufacturers will be the ones most likely to utilize the outsourcing option," said SafeTec's Hicks. "The reason is that they can't afford to purchase the expensive SDS authoring platforms and systems that larger manufacturers have in place. In addition, they are not geared up internally to handle the new volume and may be lacking in-depth knowledge of GHS. As such, it is easier and less expensive for these smaller manufacturers to outsource the authoring."

The second option is Co-Authoring — services only. This involves manufacturers using their own authoring software, but bringing in outside expertise to do the authoring. These will be chemists or others with science backgrounds and experience in the EH&S industry, who are qualified to author the documents and will use the manufacturer's internal software system to do so. They serve as an extension of the organization's own EH&S team. "Enterprise and mid-sized manufacturers are more likely to utilize the co-authoring option," Hicks said. "They can do this because they own their own platforms and systems."

"OSHA has said to downstream users that, on June 2, 2015, if the agency comes in to look at their documents, and if they are not GHS-compliant, they need to at least be able to show evidence of recent efforts that they have made to obtain the latest documents from manufacturers, even though they haven't received them yet."

— Betty Hicks, Director of Operations for SafeTec

Best Practices For Downstream Users

In sum, as noted earlier, OSHA has said that downstream user employees must be trained to know and understand both the MSDS and SDS documents. In addition, the users need to be able to prove that they are actively working toward compliance in matching chemicals and SDSs.

This can be challenging for downstream users, especially if they don't have automated authoring platforms or the necessary staff and expertise in-house. In addition, EH&S departments, especially in large facilities, are often time-constrained and don't have the ability to track all of this documentation across numerous facilities.

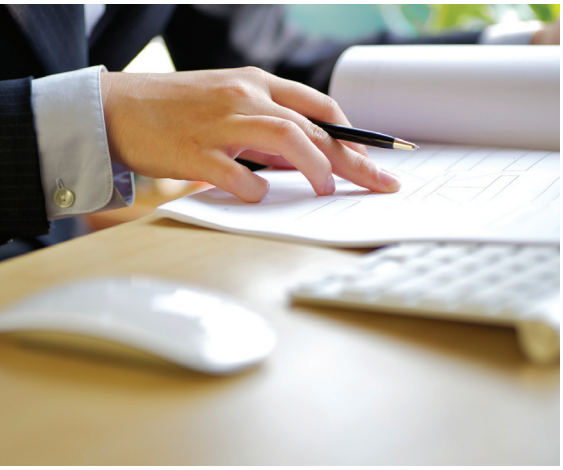
While, as a result of OSHA's statement on discretion, downstream users won't need to have all new SDSs available by June 1, 2015, for every chemical in their organization — which can be several hundred thousand chemicals — OSHA is saying that downstream users still will need to show that they are proactively talking to manufacturers and/or blenders and trying to get SDSs from them.

"OSHA has said to downstream users that on June 2, 2015, if the agency comes in to look at their documents, and they are not GHS-compliant, they need to at least be able to show evidence of recent efforts that they have made to obtain the latest documents from manufacturers, even though they haven't received them yet," Hicks said. "In addition, the downstream users will need to be able to show OSHA the most current MSDSs that they have received from these manufacturers, even if they are several years old."

Strategies For Downstream Users

If you are a downstream user, here is what you can do to ensure that you are compliant with OSHA requirements during the GHS transition:

1. Inventory all of your chemicals.
2. Marry your on-hand chemical inventory with your MSDS library. This includes quantities, container specifications and physical locations.
3. Identify MSDS-purchasing gaps. There are likely to be some. Some chemical management vendors, such as SafeTec, offer an inventory service, in which SafeTec technicians will visit client (end user) facilities and inventory their chemicals. In performing these inventorying services, SafeTec generally finds large gaps. On average, only 40 percent of a client's chemicals match their actual MSDS library. For example, this can happen when an employee uses a p-card to purchase a can of WD-40, unbeknownst to others in the organization who are responsible for tracking purchases like this.



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4. Correlate MSDS data with purchase data. Start to correlate your purchase data with your MSDS and SDS data so that moving forward, as you are making purchases, you are flagging the need for SDSs. "Downstream users need to have process in place so that when they begin receiving the new SDSs, they can update their internal documents," Hicks said.

5. Identify MSDS-SDS gaps. If you don't have an SDS for a corresponding purchase, you need to contact the manufacturer requesting the SDS, and time-stamp that request.

6. Implement controls to identify and track new purchases. One challenge, as noted earlier, is that MSDSs are often not correlated to purchase data. The primary reason is that functions in organizations often don't effectively communicate with one another. For example, EH&S approves certain chemicals to be used, but the purchasing department may find a discount from a different manufacturer and purchase something else instead. To avoid this, you will need to find a way to implement controls to better manage procurement in order to become or remain compliant with OSHA. That is, there need to be controls to make sure you are tracking 100 percent of your activities related to purchasing and SDS acquisition. "Downstream users will need to create internal processes to provide this control," Hicks said.

7. Practice due diligence. Track and report retrieval efforts for obtaining new SDSs. OSHA has said that this is the process they will consider appropriate for a downstream user's due diligence report. As such, when OSHA comes in for an inspection, if you can provide this documentation, OSHA won't insist on seeing all of your SDSs. It will just want to see what you're doing, which your report will show. "Again, as with correlating MSDS data with purchasing data, and creating a control system, downstream users will also need to create a system to be able to demonstrate to OSHA that they have performed proper due diligence," Hicks said. Assistance in doing this is available from third-party vendors (see "Third-Party Support" below).

"We are offering a monitoring and retrieval system to users that will show we have gone out and obtained the latest documents that are available from the manufacturers," Hicks said. "As a result, users can show to OSHA that SafeTec is its provider for retrieval and monitoring, and that they are providing the latest documents available."

— Betty Hicks, Director of Operations for SafeTec

Third-Party Support

Fortunately, third-party support is available for many of these requirements. In seeking this support, look for a vendor that can provide the following services:

1. Look for a vendor that can automate your process for you.
2. Look for a vendor that offers an on-site inventory service to identify all of your chemicals and documentation. Ensure it has field-level toolsets to capture quantitative (on-hand quantity) and qualitative (container information) data to deliver optimal use across EH&S stakeholders post-inventory.
3. Look for a vendor that can implement an automated "chemical approval process," which is an automated workflow that ensures any new chemicals entering the facility receive the appropriate approval, through a chain of e-mail authorizations.
4. Look for a vendor that offers an application programming interfacing (API), which provides the ability to take SDS data and map it into another system, such as SAP for purchasing. This allows for the correlation of SDSs to purchasing.
5. Be able to demonstrate to OSHA that SDSs and new purchases are actively tracked. All activity surrounding the due diligence process should be documented and made available to OSHA as requested. As such, look for a vendor that offers on-going chemical inventory management solutions to automate the process. If OSHA does come in for an inspection, you can pull out a report of your entire chemical inventory at the MSDS-SDS level, and demonstrate due diligence efforts made to obtain documents and close any gaps.
6. Look for a vendor that offers due diligence reporting capabilities. This due diligence process should be able to say to OSHA something like: "We (the user) are actively tracking these SDSs, and when we are making a new purchase, we are tracking that, and here is our activity." In this way, you won't need to worry that OSHA will demand 100-percent matching, and claim you are out of compliance if you don't have 100-percent matching.