Changes In Chemical Management Part 3: Best Practices & Technology

Glenn D. Trout, President, MSDSonline

This is the final installment of a three part series looking at important changes in chemical management. Parts one [1] and two [2] examined recent changes to OSHA's Hazard Communication Standard, including adoption of the Globally Harmonized System (GHS) and an upcoming training deadline for employers with hazardous chemicals in the workplace. This final chapter covers chemical management best practices and the ways technology and cloud computing have revolutionized chemical management.

Note: OSHA refers to the new HazCom Standard (post GHS alignment) as HazCom 2012. It refers to the old HazCom Standard (pre GHS alignment) as HazCom 1994. This article does the same.

A Chemical Timeline

In order to appreciate where we are today, it's helpful to understand the evolution of chemical compliance. Prior to 1970, chemical management was nearly non-existent. Then came OSHA and the EPA, setting the United States on a path toward greater workplace safety and environmental conscientiousness. In 1983, OSHA promulgated the Hazard Communication Standard (HazCom and HCS) and along with it a set of responsibilities for chemical manufacturers, distributors and employers.

In the early years, chemical management consisted primarily of manufacturers providing safety data sheets to downstream users and putting labels on containers. Those safety data sheets were put into binders by employers and employees were given access to them. The DOT and the EPA also have some simple requirements.

Today, chemical management is a large umbrella that covers a range of activities and regulations, including but not limited to:

- Maintaining facility specific HazCom programs
- Tracking chemicals and quantities at the ingredient level across organizations
- Providing real time safety data sheet access to employees in diverse work locations
- Employee training
- Tier II Reporting
- Regulatory reporting against hundreds of local, state, federal and international lists

- First Responder coordination
- Transportation, storage, disposal and HazMat considerations
- Chemical substitution and greening of the supply chain

In short, the range of activities those participants in the lifecycle of a hazardous chemical are expected to engage in have grown exponentially over the last 40 years — to the point where many chemical manufacturers, distributors and employers are out of compliance with some or much of their obligations.

One could easily blame this on the proliferation of rules and regulations. On the other hand, it could also be argued that some of the blame falls on those organizations for failing to adequately update their chemical management practices. While it is true that companies are expected to do more these days, it is also true that technology has done an admirable job keeping pace with compliance responsibilities.

Chemical Management 2.0

For too many businesses, chemical management boils down to the collection of three ring binders filled with hundreds or thousands of safety data sheets, many of which are out dated or missing pages. Given the range of chemical management tasks listed above, it is easy to see why compliance is hard to achieve under this system.

Today, many companies are approaching chemical management tasks as events that happen in a silo. A better approach for many companies would be to combine, automate, and streamline these activities via a robust web-based chemical management solution.

As an analogy, consider the evolution of the telephone. Back in the 1970’s phones made or received calls. End of story. Phone numbers were kept in phone books that sat beside the phone or in a small box. Searching for numbers was a manual process. Additionally, if a person needed to learn more about a subject, they went to the library, looked in books, or an encyclopedia. For weather and news, people read the newspaper, listened to the radio, and watched TV. If they wanted to take a photo or video, that required additional equipment. If they wanted to play games like Life and Monopoly, or cards, they had a closet filled floor to ceiling with options for every mood.

Today most of us carry that all of that and more on our mobile devices.

The same story is true of chemical management. In the past a paper library of a thousand safety data sheets could command a large portion of an office wall unit, and good luck finding what you need. Chemical inventory was a paper, pen and clipboard task. Reporting was a painstaking task requiring spreadsheets and calculators for unit of measure conversions.

Today, employees working for the day at a construction site can have the same real-time, robust information as chemists working back in the laboratory. A mobile

device can provide access to millions of safety data sheets. A safety professional with a good electronic system can easily track and inventory chemicals, search and view safety information, ban and approve chemicals entering the facility, cross-check chemicals down to the ingredient level against hundreds of regulatory lists, and report on chemicals from any desktop, laptop or mobile device.

Furthermore, the same innovations and network effects that have brought down the cost of ownership for computers and mobile devices have made the same chemical management solutions once affordable only to large enterprise businesses accessible to small and medium size businesses.

Technology and OSHA's Adoption of GHS

Even for companies with minimal compliance responsibilities, recent changes to the HazCom Standard make electronic chemical management worth considering. More specifically, OSHA's adoption of GHS brings big changes to the safety data sheet format and label requirements, which in turn means employers in the United States with hazardous chemicals will have their entire safety data sheet library updated in a short timeframe. Similarly, workplace labels will likely need updating in the same timeframe to address GHS-based health and physical hazard classifications.

To that end, a good electronic system does more than serve as an online filing cabinet for safety data sheets. Good systems will provide automatic updates for new safety data sheets as they become available in the database and flag those in a GHS styled format or other regulatory formats. Once the safety data sheet is in the system, information can be indexed to produce GHS styled labels with a click of a button.

Additionally, employers will need to keep a close eye on safety data sheet versions over the next couple of years since many companies are updating their safety data sheets a little bit at a time. Technically, chemical manufacturers and distributors have until June 1, 2015 to complete their updates, however, for many of them it looks like it will be a multi-step, iterative process.

To remain in compliance, employers will need to updated their safety data sheet library every time they receive an updated document. They will also need to compare new safety data sheets with older ones to see if any new hazards have been identified that employees will need to be trained on. A good electronic system can simplify the comparison of multiple documents.

GHS and HazCom Compliance Going Forward

As was mentioned in part one of this series, the best way to get started on compliance with HazCom 2012 is to ensure compliance with HazCom 1994. For employers this means having a HazCom plan, an up to date chemical inventory, the proper use of labels, maintaining safety data sheets, and training employees on chemical hazards. Following is a list of 15 steps (including the five just mentioned) that every company covered by OSHA's adoption of GHS should be working toward:

1. Designate a GHS Transition Leader
2. Get Educated on GHS
3. Inventory Chemicals (Physical Inventory)
4. Check Inventory Against Safety Data Sheet Library
5. Acquire Missing Safety Data Sheets
6. Safely Dispose of Chemicals No Longer in Use/Needed
7. Archive Safety Data Sheets No Longer Used
8. Train Employees on GHS Label Elements and SDS Format (covered in part two of this series)
9. Prepare for Safety Data Sheet Churn
10. Look for New Hazards on Incoming Safety Data Sheets
11. Get Secondary Container Labeling Strategy
12. Train Employees on Any New Hazards
13. Update Written HazCom Program
14. Meet SARA / EPCRA Reporting Obligations
15. Stay Current on GHS

Going forward, chemical management should be about keeping abreast of changes to existing laws and regulatory lists, while keeping another eye on marketplace solutions. By using a common sense approach and taking advantage of advancements in technology, chemical management can be one of the easier items on a safety professional's to do list. Another helpful attitude to embrace is the idea that chemical management is not a fixed goal. There is no magic finish line. As the regulatory environment continues to evolve, so will the compliance obligations of chemical manufacturers, distributors and employers.

Too often, companies want to know, what's the least we have to do in order to comply with various regulations; that is fundamentally the wrong approach. A better approach, a best practice, is to get out in front of regulations. If the question is not "What's the minimum I have to do too comply?" and is instead, "How can I best keep employees safe, the environment healthy, and be a good steward of resources?" then chemical management compliance gets easier.

Today, doing right by employees in terms of chemical hazards is also good business. Companies cannot afford the lawsuits, negative image, downtime, loss of productivity that comes with non-compliance. Conversely, many companies are finding the marketplace rewards "good behavior." Ultimately, chemical management boils down to keeping employees and the community safe, so everyone can go home at the end of the day.

About the Author

Glenn D. Trout is the president of MSDSonline, a leading provider of on-demand compliance solutions for tracking and managing hazardous chemicals and safety data sheets, GHS compliance, and other critical environmental, health and safety (EH&S) information. Online at www.MSDSonline.com *[3] or toll-free at 888-362-2007.*

Source URL (retrieved on *09/02/2014 - 6:52pm*):
http://www.impomag.com/articles/2013/10/changes-chemical-management-part-3-best-practices-technology

Links:
[1] http://www.impomag.com/articles/2013/09/changes-chemical-management-part-1-osha-adopts-ghs
[2] http://www.impomag.com/articles/2013/09/changes-chemical-management-part-2-ghs-training-deadline-now
[3] http://www.MSDSonline.com