POSTER ABSTRACTS
2021 Virtual Conference

Ten Decades of Chemical Hazard Communication: Guidance for Labels and Material Safety Data Sheets from the 1920s through the 2020s

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Beginning with the passing of legislation during the 1920s, continuing with the development of a growing number of regulations and voluntary standards in the 20th century, and ending with the incomplete adoption of the Globally Harmonized System during the 21st century, this timeline describes key milestones in guidance for chemical hazard communication in occupational and consumer settings. Important activities by various governmental and non-governmental organizations including the U.S. Food and Drug Administration, the U.S. Public Health Service, the Manufacturing Chemists' Association Labels and Precautionary Information Committee, the U.S. Environmental Protection Agency, and the U.S. Occupational Safety and Health Administration are examined.

The Other Side of SDSs – SDS Updates and the Impact on the Workplace

Ruth Donlon, Sphera Solutions

Typically, we view and discuss Safety Data Sheets through the lens of the manufacturer, distributor, or importer. However, when making these changes have you ever considered how the change impacts the employers in the workplace? We all know that there are specific regulatory obligations which require SDSs to be authored as well as updated but there are other factors which influence a manufacturers' decision to create and or update an SDS. These decisions impact the workplace in many ways. This poster will explore:

- Regulatory requirements for manufacturers regarding updating SDSs
- Employer requirements in the workplace for maintaining SDSs
- Various factors that drive manufacturers to update SDSs
- How SDS updates impact employers and the workplace
- Common misconceptions in the workplace regarding SDS update requirements

GHS Revision 7: Impacts on US, Canada SDSs, and Labels.

Dr. Luc Séguin, PhD Chemist
KMK Regulatory Services Inc.

The recent efforts from both countries to harmonize more closely by adopting the same Revision 7 of the GHS does not streamline all differences, it even raises some new ones.

The objective of this poster is to present each section of the SDS and the Label content on a comparative side-by-side presentation highlighting what is different, why and how it may affect a possible joint document for both countries.

Real cases using specific product families, hazard types and categories will support the comparison and an open discussion with attendees may reveal others, so we can all together synergize on compliant solutions as much as possible.

The poster will illustrate differences in the following sections:

Section 1 (Manufacturer-Importer-Distributor), the Emergency Contact information.
Section 2 regarding HNOC versus PHNOC and HHNOC.
Section 3 will be all about concentration ranges having to be either the most restrictive one or possibly the combination of two consecutive ranges.
Section 9 will show cases where a given physical property is known or not, and the method used.
Section 14 will give examples of classifications such as combustible liquids, and Class 9 when the product contains a substance having an RQ.
Section 15 will show the variety of possible content according to US and Canadian Federal and States/Provincial lists.

The labels will be compared for language requirement, manufacturer/importer/distributor information and if the product is an HNOC (PHNOC/HHNOC).

Stewardship Beyond the Fenceline

Dalia Mracna, Timothy Troutman, Lisa Marie Nespoli, Robert Skoglund, Covestro LLC

Michael Wurst, WTS

Customer trials in the polyurethane foam manufacturing industry can generate a significant volume of residual materials and by-products. Depending on the specifics of the customer trial, these residual materials and by-products can be either hazardous or non-hazardous by RCRA definitions. Covestro LLC and their by-product management partner WTS created a framework to ensure these residual materials are recovered and managed in a compliant, cost-effective, timely, and sustainable fashion. This framework is built on a firm foundation of Hazard Communication and Product Stewardship and consists of five elements. The first element is preparation that involves understanding the materials being used in the trials including the competitors' products which were being replaced and estimating the volumes and characteristics of the expected residual materials. The second element is recovery and it ensures the collection of the residual materials are done in a manner that maximizes the end-of-life options. The third element is transport with a goal of minimization in order to maximize sustainability. The fourth element is end-of-life and involves the selection of the most appropriate disposal, recycling, reclamation or even circular applications such as responsible direct re-use. And finally, the fifth element is documentation; no job is done until the paperwork is filed. This framework was approved by Covestro LLC leadership and is in place. The sample size is smaller than expected due to a lower than usual number of customer trials approved during COVID-19, but initial indications show that the framework will provide for a consistent and defensible process across the entire region (US, Canada, and Mexico).

South Korea's Updated GHS Standards and Implications for Companies

Christopher Ketchum, CIRS Group

Like most of the large markets around the globe, South Korea has adopted the GHS (Globally Harmonized System) of classification, SDS's, and labeling of chemical substances. In our poster presentation, we will introduce the key authorities in Korea to include K-OSHA, the MoEL, and OSHRI. With focus on SDS standards, we will then explore the newest update from the MoEL and look at which revisions will have further implications for SDS compliance. Under the same update, we will then look at the updated label standards with focus on hazardous statements, label size, and precautionary statements.

Using the new standards for SDS content, our poster will then shift towards SDS submissions under K-OSHA. Questions surrounding which products will be subject to submission, who is able to submit the SDS, which products will be exempted from submission, and what are the responsibilities of the importer, will all be answered here. Additionally, protection of CBI and application information will also be shared. The poster will be concluded by covering all the grace periods and deadlines for submission, along with the IT tools which are being developed by the MoEL. Case studies will then be provided to lay out specific examples for common questions.

Maintaining Compliance: Choosing the Best Software Solution for Your Hazard Communication Needs

Christina Clements, Jacqueline Wardynski, Lynne Kikuta-Oshima, Arcadis

With the changing landscape of hazard communication, such as OSHA's impending hazard communication standard update, it is more important than ever to have an effective and reliable management system. A system or tool that can accommodate functions such as: multi-jurisdiction classifications, regulation tracking (current and emerging), and label requirements and more. It can be overwhelming to consider all the global hazard communications requirements and obligations when implementing or updating your software needs. This poster will offer guidance on critical questions that many practitioners, teams, or companies ask, such as, "What are the steps I need to take to ensure the software I select actually meets my management information objectives?" "Are there 'out-of-the-box' solutions that encompass the full range of functions needed - or should I expect to consider customization to suit my needs?" "Is it time to upgrade my software solution?" and "Which solution's implementation version is the best option and price?" We will also provide guidance on identifying business value, understanding key categories/considerations that contribute to return on investment (ROI), potential pain points and cautions, and the importance of stakeholder/end-user buy in.

What Might A Visual Safety Data Sheet Look Like?

Kathy J. Malone, ManGuard Systems, Inc.

"Read the Safety Data Sheet (SDS)" is a meaningless instruction to many workers. Some of the challenges include literacy, English as a second language, learning disabilities such as dyslexia, and slower cognition.

We live more and more in a visual world.

So, what might a Visual Safety Data Sheet look like? A one-page document that a worker could glance at and understand the hazards associated with the chemical being used or about to be used?

And if structured data for the Safety Data Sheet was available, what if the "picture" could create itself? How much EHS time would be saved?

At least 2 versions of the Visual SDS seem useful: one for workers and one for emergency responders. There may be others that emerge as the project progresses. And the Worker Visual SDS will need to be cross-referenced with the worker's job, route of exposure, duration and intensity of exposure, etc.

This poster will present a couple of options for how such a Visual SDS might look.

The intent is to generate discussion and input from poster session attendees about other features and improvements!

EU Poison Centre Notifications - Navigating the Sea of Changes - We're All in the Same Boat

Katie McGee, Sphera Solutions

At first look, the EU CLP Annex VIII amendment (Poison Center Notification) does not appear to be all that challenging. After all it is *only* 19 pages. But as with many things that seem simple at the surface the devil is in the details as they say. Beyond the sheer volume of data that is required to be submitted, another devilish detail here is the little clause that says - "*It shall be submitted by electronic means in an XML format provided by the Agency*". Compliance with the PCN requirements takes much more than just awareness of the regulatory text and a guidance document. This poster shares a perspective of the timeline of the amendments and changes in all its various pieces. The reality is we are all in the same boat, just trying to be as compliant as possible with whatever is thrown our way. The goal is to give a holistic perspective into the requirements, changes and deadlines that will, perhaps, encourage or enable those who have access to regulators or trade/industry groups (or have relationships with people who are in those types of roles) to communicate the challenges facing their organizations as they navigate PCN.

Overview on OECD Defined Approach (DA) for Skin Sensitisation Classification

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Rishabh Hirawat, National Institute of Pharmaceutical Education and Research (NIPER), India

Need for developing harmonised approach for assessing chemical safety, to replace the need for animal test data and to meet the regulatory needs, Organisation for Economic Co-operation and Development (OECD) has developed guideline for Defined Approach (DA) to assess Skin Sensitisation. The mathematical rule based, defined and a systematic methodology is a two-tiered procedure to address hazard identification followed by sensitisation potency without requiring an expert judgement. Interestingly, the three DA namely in silico, in chemico and in vitro used in a specific combination reported to provide same or higher accuracy compared to LLNA for hazard identification. The other two integrated testing strategy for detecting skin sensitisation potency has been found to be of similar accuracy as compared to LLNA. Additionally, the individual process of classifying an agent into skin sensitisation will have shortcomings but a combination of these approach will provide an equivalent accuracy through a unique scoring system. The combined scoring obtained from a battery of these test for skin sensitisation will facilitate in classifying a substance according to UN GHS criteria. The poster illustrates comprehensive tour of the rationale, methodology and industrial applications of these novel combination of methods to predict the skin sensitisation classification.

Tactics for Obtaining Compositional Information to Improve GHS Classifications and SDSs

Bethicia Prasek, NexTier Completion Services
Mary Dimataris, Consultant

Balancing the need-to-know when authoring SDSs with the responsibility of confidential information in a fast-paced environment is a challenge as it is necessary to ensure all components are properly addressed in Section 3 and that appropriate GHS classification is provided. This process can get even more challenging when charged with vetting third-party information or for products used in sensitive environments that might have different regulatory disclosure requirements.

Legal agreements, building vendor relationships, and working with your company's Product Development and Purchasing departments to obtain needed information from the vendor early on are all techniques which can improve this process. Utilizing other sources of compositional information, trusting the vendor's listing of hazardous components, screening for specific chemicals of concern with the vendor, and obtaining product-level HSE testing are other worthwhile approaches. This poster highlights these and other tactics garnered from years of experience which can be used to obtain information, improve communications with other departments, and increase confidence that your SDS provides an accurate representation of the product's hazards and meets the local requirements, all while maintaining the appropriate trade secrets.