Health, safety and sustainability at the forefront

Growing initiatives and concerns about the environment, about the health and safety of the public, and about sustainable business practices have led many governments and non-government organisations (NGO) to think carefully about the ways that chemical products are formulated, transported, handled, stored and disposed of.

This has resulted in an **increase in the creation of regulatory requirements** and **heightened public expectations** related to product and ingredient safety.
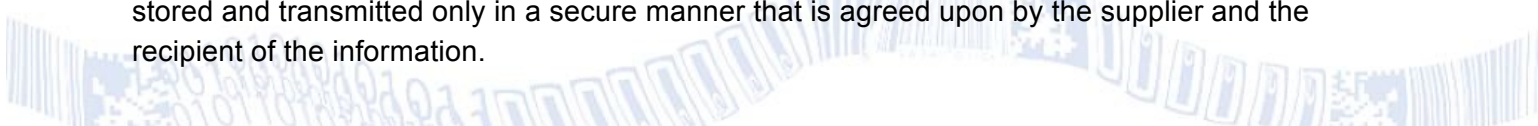
Some notable examples of regulatory requirements include:
- DOT – 49 CFR Part 107
- EPA – 40 CFR Parts 260-279
- OSHA – 29 CFR 1910.1200
- REACH European Community Regulation EC 1907/2006
- California CCR Title 22
- Canada CEPA 1999
- Local jurisdictional regulations

To add further complication, disclosure requirements vary by geographic jurisdiction, by specific regulation, and by functional needs. Of course, failure to comply with regulations can potentially result in legal action, significant fines, negative public perception and environmental liability.

Currently, the sole document that captures a broad spectrum of safety, health and regulatory information about a product is the Material Safety Data Sheet (MSDS) that is prepared by the manufacturer. There are however no uniform global standards for writing MSDS, and as a result these documents can vary in content and quality from each supplier. **Furthermore, at this time, there is no single location where MSDS are stored, and there is no consistent mechanism of transmitting them to users or to the retail community.**

Obeying regulations while protecting confidential business information

There is an important need to develop an efficient and secure method to store and transmit MSDS and related safety and regulatory information about products and ingredients. At the same time, any solution developed must allow for the sharing of formula/ingredient information in a manner that protects intellectual property and confidential business information. Proprietary data must be stored and transmitted only in a secure manner that is agreed upon by the supplier and the recipient of the information.

GDSN could be the solution

The GS1 Global Data Synchronisation Network® (GDSN®) could enable the synchronisation of regulatory and product/ingredient safety information consistently, efficiently and securely.

The GDSN would facilitate the information exchange that would help participants in the supply chain identify the trade item data that allows them to safely and legally store, handle and dispose of chemical ingredients or products with chemical ingredients. It would likely also ease the ability of companies to comply with the various new and existing regulations governing these substances. In addition, by adding a few specific GDSN functionalities, this process would enable the protection of confidential business information, boost the efficiency of reporting, and assist both suppliers and buyers in their sustainability activities.

Suppliers, retailers, and consumers would all benefit from a safer and more reliable supply chain, which would be made possible by a more efficient and consistent information-gathering process that maintains the confidentiality of formula information while assuring accurate regulatory and product/ingredient safety information.

> **The GS1 GDSN provides the framework for secure and continuous synchronisation of accurate data. It is built around the GS1 Global Registry™ and GDSN-certified data pools.**

Work in progress

There has been strong support in the user community for developing a GDSN-based solution to address these challenges. Indeed, a broad coalition has been formed to address this topic. Members of this **Chemical Ingredient Reporting Work Group** include:

- Eight product-related trade associations
- Major retailers
- Major suppliers
- 3rd party content providers
- Governments (for example, the US Department of Defense)

The Chemical Ingredient Reporting Work Group is striving to create a standard, consistent, unbiased, secure, and efficient method for communicating reliable chemical composition and compliance information on products through the GDSN.

This standard will be flexible enough to handle global and local regulatory requirements (potentially down to the municipality level). The group's standards development efforts have been primarily focused on messaging, process and data quality. They are documenting the requirements for:

- Creating a standard, consistent, unbiased, secure and efficient method for communicating reliable chemical composition and compliance information on products in a timely manner.
- Ensuring the standard will be flexible enough to handle global and local regulatory requirements (down to municipality level).
- Creating new functionality for sending product/ingredient safety and regulatory information through the GDSN

- - Sending Chemical Ingredients (Up-stream Suppliers, Trading Partners (Supplier and Retailer) and 3rd Party)
  - Auditing message and information movement.
  - Updates to network based on a new regulation. New Type of compliance information. Mandatory Process for updates.
- Establishing information requirements for chemical ingredients including existing hazardous requirements from CR 08-000189.
- Establishing data security for chemical ingredients information to protect intellectual property and proprietary formula information. Ensuring comfort level in order to ensure appropriate disclosure.
- Creating a methodology for various required (including regulatory) reporting and use of data. Information supplied would allow for the recipient to do reporting.
- Creating data accuracy rules for chemical ingredient information and regulatory reporting data from 3rd party. 3rd party distills this into regulatory data need for this product. (DS and 3rd Party). Data accuracy rules will be a combination of data validation rules and high level audit requirements (e.g. that compliance information meets a certain regulation).
- Developing criteria to qualify companies to provide regulatory information and services, including security, speed and accuracy (validation rules) according to established data accuracy rules.
- Implementation guide providing guidelines on how to use the standard when published.

Not within the scope of this phase of work: Details on the requirements of being a 3rd party besides the data quality, turn-around time guidelines or security concerns.

The Work Group has already achieved some important milestones:
- Complex Change Request 214 approved by GDSN Board – June 2008
- Business Case Document (BCD) Team formed – August 2008
- BCD Completed – October 2008
- Project Team approved BCD – October 2008
- GSMP resource allocation determined – October 2008
- GSMP issued a "Call for GDSN BRG (TG) call action" – November 2008

▶ **The Business Requirements Analysis Document (BRAD) for a Chemical Ingredient Reporting Standard is on track for finalisation in early Q3 2009.**

Once the BRAD is created, the Work Group will then focus on activities to develop the necessary standard for its smooth implementation, including scaling the GDSN as needed, developing a criteria for a certification program for suppliers and 3rd party service providers outside of GDSN, and agreement on the nature of the information provided.

Chemical Ingredients Reporting in Action: A Retailer's Program

In 2006, a leading global retailer initiated a Chemical Assessment and Review Process and started to work with a third-party service provider and its suppliers to enable chemical ingredients reporting. Suppliers with chemical products were required to move from self-certification to an ingredient disclosure and product safety review program managed by the third-party service provider.

A work group created under the auspices of the US-based Consumer Specialty Products Association and consisting of suppliers and retailers, is developing a consensus on the type of regulatory and product/ingredient safety information that can be transmitted via GDSN. This work will ensure manufacturers' concerns about protecting confidential business information are addressed. It will also ensure that the information that is stored and transmitted will meet evolving ingredient disclosure requirements - including regulatory (e.g. EPA, FDA, REACH, California Green Chemistry Initiative, etc.; voluntary (e.g. CSPA/SDA Voluntary Ingredient Disclosure Initiative, etc.); and those of the retail community.

Indeed, as retail and distribution operations have come under increasing enforcement scrutiny, the need to have product/ingredient safety and regulatory information effectively and uniformly transmitted to the retail community has become critical.

Learn more

The GDSN is built around the GS1 Global Registry, GDSN-certified data pools, the GS1 Data Quality Framework and GS1 Global Product Classification, which when combined provide a powerful environment for secure and continuous synchronisation of accurate data. Learn more at http://www.gs1.org/gdsn

If you would like to contribute to developing the standards described here, we invite you to join the GS1 Chemical Ingredient Reporting Work Group. Send an e-mail to GDSNinc@gs1gdsn.org.