



Understanding SUMIs

Communicating the Safe Use of Mixtures Information
Across Market Sectors



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Background

Under REACH the most hazardous chemicals were registered first in 2010, followed by those in 2013 that were manufactured/imported in the next largest quantities. Finally chemicals manufactured/ imported between 1 - 100 tonnes per year are now to be registered in 2018. This will complete the data gathering process on substances on the European market.

Following the introduction of REACH nearly 10 years ago, it is clear that Industry and Stakeholders are now armed with significantly more knowledge and experience in dealing with this complex piece of legislation, and now seek to make best use of this huge amount of data generated fulfilling the main REACH objectives.

The overall intention of REACH was to provide a high level of protection to human health and the environment by improving knowledge of hazardous chemicals and their associated risks, and then introducing better risk management measures to ensure safe use.

REACH also reversed the burden of proof on the “safe use” of chemical substances. It is now the responsibility of individual companies to demonstrate how chemicals can be used safely. Companies need to collect information on chemical properties and their uses, and assess how workers, consumers and the environment are exposed.

The Exposure Scenario (ES) is the tool for communicating safe use in the supply chain. It defines the conditions on how a dangerous chemical can be handled without exposing workers, consumers or the environment to unacceptable risk. These conditions of use are not legally binding, but failure to work within the conditions of the scenarios described by the supplier will need robust justification (remember – an ES is only relevant for dangerous substances).

Information within the ES may result in companies revising their workplace risk assessments, and if necessary making adjustments to specific control and risk management measures, processes and training. Ultimately, there may be a need for substitution of chemicals for certain uses and it must be remembered that this was one of the objectives of REACH.





Downstream User Communication for Exposure Scenarios

REACH introduced the concept of an Exposure Scenario (ES). The ES provides specific information on how a hazardous chemical is to be managed and controlled under specified conditions, to ensure its use is safe to man and the environment.

REACH articles 14 and 37 require formulators to pass on relevant information received via exposure scenarios (ES) for substances which are contained in their formulations. Formulators (for example the coatings industry serving end users), are required to pass on the information which is relevant for their customers' uses of hazardous products.

ECHA guidance provides 3 options for formulators to pass on relevant information obtained via Exposure Scenarios (ESs) for substances which are contained in their formulations:

1. Forward the ES(s) for the relevant substance(s) contained in the mixture, attached to the SDS for the mixture.
2. Consolidate the ES(s) for the relevant substance(s) contained in the mixture and annex to the mixture SDS.
3. Consolidate the ES(s) for the relevant substance(s) contained in the mixture and integrate complementary information in the mixture SDS main body.

Whilst the above 3 options meet the legal requirements of REACH, there are a number of practical reasons why this approach has largely been ignored.

- ES's are long (in some cases 300 pages plus), complex documents and difficult to comprehend.
- A complex mixture containing 10 hazardous substances with ES's would be impossible to comprehend and digest by the end user.
- The ES is normally available as a PDF file in a single language, but the requirement is to provide multi lingual documents.

These areas of concern are acknowledged by many trade associations which has now resulted in a new "bottom- up" approach being developed and coordinated by many downstream associations (DUCC, CEPE, AISE etc.).

SUMI – Safe Use of Mixtures Information

An industry developed new concept for chemical mixtures

The "bottom-up" approach has been developed by CEPE/EuPIA and other downstream associations to facilitate communication of safe use information for mixtures based on substance ESs. It is envisioned that information will be provided for hazardous mixtures, supplied for occupational uses (i.e. industrial/professional), however note that it is



not necessary to use this approach for non-hazardous mixtures, even though you may supply an SDS. The approach introduces new concepts and terminology -

SWED: Sector-specific worker exposure description

A SWED is a description of an end-use of a mixture, including the assumed operational conditions and risk management measures used in the activities covered by the use group, and identifies potential exposure routes for workers.

It is specific to a sector and includes the data required to compare the predicted exposure of a worker to substances in a mixture during all activities against the limits set for substances contained in the mixture, as specified in the Chemical Safety Assessment.

SUMI: Safe Use of Mixtures Information

The SUMI is the medium for communicating conditions for safe use of substances in a mixture, for a particular end- use. It is based on the SWED information and is the output of the approach, tailored to the end user. The SUMI gives the appropriate operating conditions and risk management measures for a range of mixtures in a specified area of use.

The SUMI is not a stand-alone document. For communication down the supply chain, it is supplied as an annex to the SDS. The SUMI is a generic document and can be adopted by an entire product range. Multiple SUMI's may need to be supplied for each of the customer's end-uses for any one product e.g. spraying, dipping.

Conclusion

Following the introduction of REACH, industry is now starting to experience some of its impact. In line with the legislation, suppliers of hazardous materials have an obligation to communicate the safe use of chemicals to their customers.

For chemical substances, the Exposure Scenario (ES) is the tool for this communication. It defines the conditions on how a dangerous substance can be handled without exposing workers, consumers or the environment to unacceptable risk.

Due to the complexity of chemical mixtures, it has taken industry several years to develop a coordinated approach suitable for different market sectors. However the final result is a standard simplified document called a SUMI (Safe Use of Mixture Information) that is attached as an annex to the SDS.

UL can help

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