Processing safe use for Resin Mixtures under REACH

Issues and concerns with current ENES Tools

Resin Technical Platform (RTP) TF extended SDS for Mixtures

1 May 2017
AGENDA
Processing safe use for (resin) mixtures

- Introduction
- Landscape of Resin Mixtures
- Processing safe use for mixtures under REACH – issues & concerns with ENES Tools
- What do we need?
Introduction
Who we are & purpose of this presentation

Resins Technical Platform (RTP)
The Resins Technical Platform (RTP) aims to unite and strengthen the activities of individual sector groups and associations within Cefic in the field of resins.

RTP TF “extended SDS for mixtures”
The RTP Task Force “extended SDS for Mixtures” is addressing and advising the resin industry on issues related to the extended SDS for mixtures under REACH.

Associations and sector groups currently represented in the TF:
- CEPE – European Council of the Paint, Printing Ink and Artists’ Colours Industry
- FORMACARE – Formaldehyde Sector Group
- HARPPA – Hydrocarbon and Rosin Resins Producers Association
- PPRM – Polyester Powder Resin Manufacturers
- SRM – Solvent Resin Manufacturers
- UVEB – UV/EB acrylate resins sector group & UPR – Unsaturated Polyester Resins sector group

With this presentation we like to raise awareness of our issues and concerns with the current methods for processing safe use of mixtures for the stakeholders in our resins mixtures supply chain.
Landscape of Resin Mixtures
A complex but representative supply chain involving various industries

Representative supply chain

- Manufacturer/Importer/Distributor
- Next Formulator (to next formulator(s) or end-user)
- Formulator (to end-user)
- End-user of chemicals

Upstream

- Monomers, Oligomers, Solvents, Pigments & extenders, Resins, Additives and other raw materials for Resins production
- REACH Consortia
  - TMA Consortium
  - HPPA Consortium
  - Others

Downstream

- A Resin is a natural or synthetic compound that begins in a viscous or solid state and hardens with treatment. They are often mixtures and used in various other mixtures and applications (within various DU sectors).
- Press mass (Binder for the manufacture of friction linings), Paper industry, Textile Industry, Glass fleece and Insulation, Rubber & Tire Industry, Chemical Intermediate, Monomer reactant, Water Treatment, Adhesives & Sealants, Building Industry, Cement and concrete superplasticizer, Coatings, Paints, Impregnates (laminates, edge bandings), etcetera

Other Sectors

- Not all known and/or active

Resources

- www.esig.org
- www.isopa.org
- www.alipa.org
- www.aise.eu
- www.cepe.org
- www.feica.eu
Processing safe use for mixtures
The REACH system for safe use of chemical products

Main issues:

1. Scope of the exposure scenario(s). The ES must cover all identified uses of the substance as such and in mixtures in the supply chain:
   - This can be reliably done for all end-uses of substance.
   - It becomes less reliable when included in a mixture. The Registrant does not know / use the other mixture components and properties in his substance CSA => generic ES.

2. For the formulator how to process reliable mixture safe use information (SUMI) in the mixture SDS conform REACH:
   - Various top-down and bottom-up approaches (with issues).
   - Need for one automatable solution in SDS Software.

3. How to provide reliable safe use info and organising the up- and down stream communication becomes more complex for longer supply chains with multiple formulators.
Processing safe use for mixtures

Issues with the Top Down (LCID) Method

Top down approach: add the ES(s) of the relevant components

- Very long documents.
- Not standard phrases yet, 27 languages
- Scope ES: OK for production & formulation. Downstream uses in mixtures less clear
- In complex value chain (multiple formulator steps): organizing upstream and downstream communication

Lead component selection (LCID) method

- How to consolidate the OCs and RMMs? (‘cut and paste’ instruction is missing, non harmonized formats/CS’s). No SUMI format provided.
- Identification of the correct lead components is not only depending the mixture properties but also relates to the operational conditions of the activity (e.g. lead component can be different for the same activity at a higher temperature).
- The LCID method can be automated (selection of lead components); not clear how to automate the generation and inclusion of the SUMI(s) in the SDS Software
Processing safe use for mixtures
Issues with the Bottom-up SUMI Method (1)

Bottom up: Concised Safe use info to End user

DUCC SUMI – SWED (Specific Worker Exposure Determinants)

• Focused on formulator to end user(s).

• No solution for In between formulators. They have to deal with:
  – What to send to next level formulators?
  – How to process safe use for the in between mixture uses?

• All formulators have to deal with:
  – Different SWED(s) per sector
  – Different validation approaches (minimal tolerable DNEL, other methods). No consensus yet.
  – Environmental part not yet covered

• Serious delays can be expected:
  – Not all sectors are active / ready with the new Use Maps. Creation of a Use map is time consuming.
  – SUMI’s exclusive for sector. What to do with mixture without association?
  – Substance ES(s) must be updated acc. to sector SWED’s. Concern that registrants are not aware and/or have no capacity to update their ES(s). if no SWED codes included, then what?
  – Automation not ready
Processing safe use for mixtures
Issues with the Bottom-up SUMI Method (2)

1. Analysis of typical end-uses in Sector
   => Use maps (SWED, SCED, spERC), Cesar Import File, SUMI's (one per SWED)

Concern: Only few DU Sectors ready; most DU Sectors have 'old' DUCC Templates. How fast are the new Use Maps available? How fast will the sector-specific SUMIs be ready in all languages => DELAY 1

2. DU CSA/CSR
   (not required for SUMI issues)

2.a. DU CSA/CSR (own & known DU uses)

2.b. DU CSA/CSR
   (not required for SUMIs)

3. Validation incoming ES to determine relevant SUMI(s) for Mixture SDS

4. Upstream communication
   (ES, Use or RMM issues)

4.a. Upstream communication

4.b. Upstream communication
   (not required for SUMI issues)

Concern: Only few DU Sectors ready; most DU Sectors have 'old' DUCC Templates. How fast are the new Use Maps available? How fast will the sector-specific SUMIs be ready in all languages => DELAY 1

Issue: Environment not covered (yet)

Multi formulator issue: No solution for in-between formulators (next slide)

Safe use work place
(End-user)

Concern: Automation / integration in (commercial) Software systems not clear /ready => DELAY 3

Issue: No consensus on the validation process for the formulator amongst the front runner sectors (yet).

Issue: 5 front runner Sectors want to keep the SUMI's for the Members. No solution for non-Members and Mixtures without an (active) DU Sector solution

Issue: If the relevant ES’s are not updated, the formulator needs to do his own CSA. How?

Concern: Only few DU Sectors ready; most DU Sectors have 'old' DUCC Templates. How fast are the new Use Maps available? How fast will the sector-specific SUMIs be ready in all languages => DELAY 1

Concern: if and how existing Registrants will update their ESs to include the relevant SWED(s) => DELAY 2

Issue: Generic scope issue with the ES; how reliably is the SUMI based on the relevant ES(s)?

Issue: Environment not covered (yet)

Multi formulator issue: No solution for in-between formulators (next slide)

Safe use work place
(End-user)

Concern: Automation / integration in (commercial) Software systems not clear /ready => DELAY 3

Issue: No consensus on the validation process for the formulator amongst the front runner sectors (yet).

Issue: 5 front runner Sectors want to keep the SUMI's for the Members. No solution for non-Members and Mixtures without an (active) DU Sector solution

Issue: If the relevant ES’s are not updated, the formulator needs to do his own CSA. How?
Processing safe use for mixtures
Issues with the Bottom-up SUMI Method (3)

1. Analysis typical end-uses in Sector
   => Use maps (SWED, SCED, spERC), Chesar Import File, SUMI’s (one per SWED)

2. DU CSA/CSR =>
   - own & known DU uses
   - Safe use workplace (Formulator 1)
   - Safe use workplace (Formulator 2)

3. Validation incoming ES’s to determine relevant SUMI(s) for Mixture SDS
   - not covered
   - Formulator 1 (to formulator)
   - Formulator 2 (to end-user)

4. Upstream communication
   - (ES, Use or RMM issues)
   - (not required for SUMI issues)

   - Formulator 1 (to formulator)
   - Formulator 2 (to end-user)

Issue: The SUMI SWED approach only focuses on mixture end-uses (no solution for in between formulators):

What is or can be expected from the in between formulator in the validation process?
- Expected to be desire of the final formulator (up to end-user) to receive all relevant substance ES’s.

If so:
- How to deal with DU CSA requirements of next formulator(s)?
- How to deal with safe use information for the in between uses? Not covered as such.
What do we need?  
Suggestions for improvement / consideration

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<tr>
<th>Main issue</th>
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<tr>
<td>▪ The current set of ENES Tools for processing safe use information of mixtures does not provide a complete solution for the (in between) formulator(s) in the multi sector supply chain of resins</td>
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<th>Improving the methodology</th>
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<tr>
<td>▪ Focus on harmonization. One solution for processing safe use information for mixtures (worker and environment) in stead of various deviating tools and formats.</td>
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<td>▪ Focus on automatable solution within or connected to SDS Software tools.</td>
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<td>▪ Should be a balanced effort for all Stakeholders: Registrants, Formulators (including in between formulators), Distributors and End users</td>
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<td>▪ Focus on the added value for the stakeholders (e.g. practical processes &amp; understandable safe use information for all)</td>
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<td>▪ The RTP TF “extended SDS for Mixtures” keeps on looking for solutions as such</td>
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