

# Data Processing from Received Exposure Scenarios – Experience from Production of Coatings

## Received (e)SDSs at Company Level

- 250 REACH Safety data sheets (double counts due to language)
- 165 with annexed exposure scenarios (~ 5 % of all raws) for
- 125 substances
  - 60 organic solvents and other VOCs
  - 50 monomers and reactive compounds
  - 10 pigments and catalysts
  - 5 resins (phenolic resin, unsaturated polyester)
- eSDSs for simple mixtures only (e.g. UP resins with styrene)

# Downstream User Compliance Check

- Weekly meeting of REACH team, vendor coordination, operations (site REACH coordinators), product stewardship coordinators
- 30 % of eSDSs need rework, broadening of scope, clarification (missing ESs, missing PROCs/ERCs, missing registration number)
- 10 % of ESs show gaps in environmental assessment, core DNELs
- 5% of ESs contain wrong data (wrong DNELs, miscalculated M(safe))
- 5% of ESs trigger restrictions which are untypical for sector of use (low content in mixtures, DOA less than 4 hours, limited choice of PROCs, LEV for side operations, unusual PPE)
- Consolidated exposure assessment for customer uses (industrial and/or professional) in 20 product groups

# Condense Received Information to Essential Needs



- Select relevant ESs (formulation and packaging, industrial use of coatings/cleaners, professional use coatings/cleaners)
- Focus on applicable PROCs and ERCs per product group (flag missing PROCs per raw material in company IT system)
- Apply PROC hierarchy (5>3, 8a>8b, 4>2) for worst case
- Use DPD+ to identify lead substances
- Ignore residual monomers for REACH assessment (assess via PS)
- Focus on longterm systemic exposure for industrial/professional use
- Focus on point sources for close to industrial setting (e.g. bodyshops)
- Reduce environmental assessment to substance transfer into process waste water streams (e.g. wet scrubber, wet sanding)
- Apply approved spERC concept supported by downstream user association and connected to standard assessment tool
- Skip RMMs for air emission unless relevant for impact on neighbours

# Translate Received Information to Sector-Specific Conditions



- Down-scale from 100 % substance to applicable concentration band
- Translate abstract use descriptors to sector specific language (e.g. PROC 4/2 for drying/curing, PROC 10 for application of putty)
- Select OCs and RMMs for supplies with diverging descriptions (typical for technical hydrocarbons and UVCBs)
- Translate assessment by non-ECETOC tools into ECETOC setting
- Ensure compliance of solids assessment in liquid/extruded mixtures
- Cover standard industry conditions wherever possible (CEPE GES)
- Offer sub-ESs or scaling option in case of restrictive use conditions (>90 % of products are suitable for standard conditions)
- Review elevated process temperature conditions by assessing volatility band of solvents at different temperatures
- Display repeated information in tables
- Translate from 2 languages into 25 languages

# Provide Additional Information where Appropriate



- Include sanding of dried/cured paint film (PROC 24/ERC 12a need identification of hazardous substances which remain in paint film)
- Expert judgement for spraying (adverse generic impact by aerosols in addition to substance specific impact)
- Overcome data gaps for identified lead substances for which exposure scenario is not yet available
- Product stewardship for residual monomers (e.g. isocyanates, formaldehyde)
- Advice to comply with existing legislation for worker and environmental protection irrespective of safe use assessment
- Reflect all substances disclosed in section 3 of SDS (even if voluntary disclosure)
- Assess combined effects when known

# Internal Exposure Assessment for Substances in Mixtures



Industrial and professional users	Safety data sheet	Exposure assessment	Implementation at company level
Mixture non hazardous, no substance above declaration threshold	Voluntary	Voluntary	No RCR calculation, no scaling option; Good practice advice
Mixture non hazardous, one or more substance above declaration threshold	On request	Mandatory according to REACH article 14	Exposure assessment related to hazard characteristics
Mixture hazardous	Mandatory	Mandatory	Exposure assessment related to hazard characteristics

# How to Communicate Results of Exposure Assessment



- Proposal CEFIC/VCI (Communication inside chemical industry)
  - Annex
  - Structure according to EChA guidance (4 parts)
  - Application of DPD+ for identification of lead substances (per route)
  - Explanation of relevant parameters for scaling
- Proposal VW/ACEA (Communication to users at end of supply chain)
  - Clear text description of standard use conditions
  - Highlight specific restrictions when necessary (DOA < 4h, LEV, PPE)
  - Limitation of communication to core data and risk management measures (according to REACH article 14 (6) and article 31 (7))
  - Integration into core SDS (e.g. into section 8.2/8.3)
  - Scaling via internet link if necessary