Substances of concern in material loops: towards safe recycling

Breakout session 14-6-24

Introduction

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Overall objective





Decreasing the impact of chemical substances in waste and recycled products to a level that is doing no harm to health and environment



What's already done about it? Broader European context

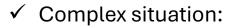
- ✓ EU Green Deal: multifacetted strategy to transform the EU in a modern economy where among others:
 - Ressources are optimaly used
 - Some key principles:
 - substances of concern are kept out of the cycle or have no significant impact on health and environment.
 - more careful use of chemicals in articles and materials
- ✓ Initiatives EU-level with links to substances of concern in waste:
 - Interface between waste and chemicals/products legistlation
 - Chemicals strategy
 - Zero pollution action plan
 - Waste stream specific legislations: batteries, ELV, packaging, WEEE
 - POP-regulation
 - Sustainable Product Initiative with Ecodesign Regulation
 - Textile strategy
 - Regulation on microplastics
 - Regulation waste shipments + guidelines Basel Convention
 - ...







Some remaining issues



- Products exit chemicals legislation when they become waste, but upon successful recycling, this legislation applies
 again
- SVHC, SoC vs hazardous waste:
 - SVHC: Reach-context but links with WFD
 - SoC: no general EU-definition but applied in specific legislation
 - Hazardous waste: LoW + WFD annex iii
- Waste and chemicals legislation have different objectives => friction
 - Chemicals Legislation
 - Applicable to substances, mixtures, and articles.
 - Registration, authorization, restriction & classification procedures + specific standards
 - Specific rules for hazardous substances such as SVHC (Substances of Very High Concern) and POPs (annex I).
 - Waste legislation
 - Applicable on waste as a whole, unlike chemicals legislation.
 - More "pragmatic" kind of risk management & possible other standards
 - POP Annex IV & V
 - Partial alignment with CLP (2014)
 - $\circ \qquad {\sf EoW} \ {\sf criteria} \ {\sf are} \ {\sf not} \ {\sf harmonized} \ {\sf between} \ {\sf EU} \ {\sf MS}$

✓ Application of precautionary principle unclear





Some practical challenges

- \checkmark Difficulties in recycling
 - Problem of legacy substances and different lifetimes products
 - Heterogeneous materials + properties vary according to batch
 - Contamination of products after purchase
 - Waste processors should choose waste treatment methods compatible with the risks. .
 - Waste classified under less restrictive hazard class (than CLP) and becomes EoW => reclassification under CLP. Risk for recycler.
- Classification hazardous waste: \checkmark
 - Interplay systems of mirror codes vs HP criteria (Hazardous Properties) in waste classification.
 - Potential inconsistencies between waste and chemicals regulations.
- Information Transfer: \checkmark
 - Limited information transfer about substances of concern to the waste phase.
 - No mechanism for communication to waste operators.
 - SCIP database as an attempt to gather information on SVHCs:
 - 14 million entries

 - Applicability for waste operator? Could facilitate cleaner products but no obligation to reduce chemical risks
- Tracking substances:
 - Possibly feasible: specific legislation/guidelines for certain sectors
 - Taking into account the cost & the limitations of waste analyses
- Practical Implementation: \checkmark
 - Pragmatic approach by waste processors due to lack of information.
 - Choice of LoW-codes (European Waste Catalogue) influenced by available info and practice within sectors.



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WFD: links with hazardous substances and SvHC - I

- ✓ Art. 4 Waste hierarchy => also take into account global impact, principle of precaution
- ✓ Art. 6 End-of-waste status:
 - Condition n°4 => use of substance with no overall adverse health or environmental effect
 - Possibility for setting of criteria on Union level, member state level or case-by-case
 - Check of meeting requirements of chemical and product legislation
- ✓ Art. 7 List of waste:
 - Distinction non-hazardous vs. Hazardous (*)
 - Possiblility to reclassify by MS (on basis of Annex III)
- ✓ Art. 8 Extended producer responsibility
 - 8a general minimum requirements:
 - 1(b): Possibility to set other quantitative targets and/or qualitative objectives relevant for EPR
 - 4(b): Possibility to modulate obligations on recyclability and presence of hazardous substances

✓ Art. 9 – Prevention of waste

- 1(i) MS measures to promote the reduction of the content of hazardous substances in materials/production + ensure filling in SCIP by supplier (art. 33(1) REACH)
- 2. ECHA establishes database (SCIP)





WFD: links with hazardous substances and SvHC - II

- ✓ Art. 10 Recovery
 - MS takes necessary measures before or during recovery, to remove hazardous substances, mixtures and components from hazardous waste.
- ✓ Art.11 preparing for re-use and recycling
 - MS take measures to promote high quality recycling (separate collection of waste
 - MS promote selective demolition to enable removal and safe handling hazardous substances
- ✓ Art. 13 Protection of human health and the environment
- ✓ Art. 17 Control of hazardous waste
 - Production, collection, transportation, storage & treatment => protection of health and environment.
 - Traceability to final destination
- ✓ Art. 18 Ban on mixing hazardous waste
 - No mixing or dilution
 - Derrogations
- ✓ Art. 19 Labelling of hazardous waste
- ✓ Art. 20 Hazardous waste households
- ✓ Art. 21 Waste oils
- ✓ Art. 35 Record keeping by producers, collectors, transporters, brokers of hazardous waste (registry)
- ✓ Annex III Properties of waste which render it hazardous







Discussion themes

Information bottlenecks => SCIP-information: making it more usable for waste-industry

Legal framework discrepancies => same standards for virgin and recycled materials?

Innovative sollutions for waste management => is industry responsible for high quality recycling of waste



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