REACH – IED
Improvement of chemical management

HAZBREF, final webinar

4 June 2020

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Overview

- Prioritisation of chemicals for prevention or control of emissions
- Supply chain communication
- REACH/CLP input to IED BREF review process

Prioritisation of chemicals for prevention or control of emissions

Supply chain communication

REACH/CLP input to IED BREF review process

Starting Point

- Operators of industrial site need (as a minimum) to ensure compliance with rules of the local waste water treatment company (often a list of emission limits for metals and sum parameters)
- For installations subject to IED, legislation requires the operator to identify the nature and quantities of emissions as well as the significant effects on the environment (IED Art 12f)
- Risk based method will help the operator of the installation

Objectives

1. Site operators are able to identify chemicals in their portfolio that need prevention or control of emissions as a priority
2. Establish onsite environmental risk assessment as a dynamic responsibility of site operators

➢ Complement identification of priority substances performed by authorities (ENV leg, REACH)

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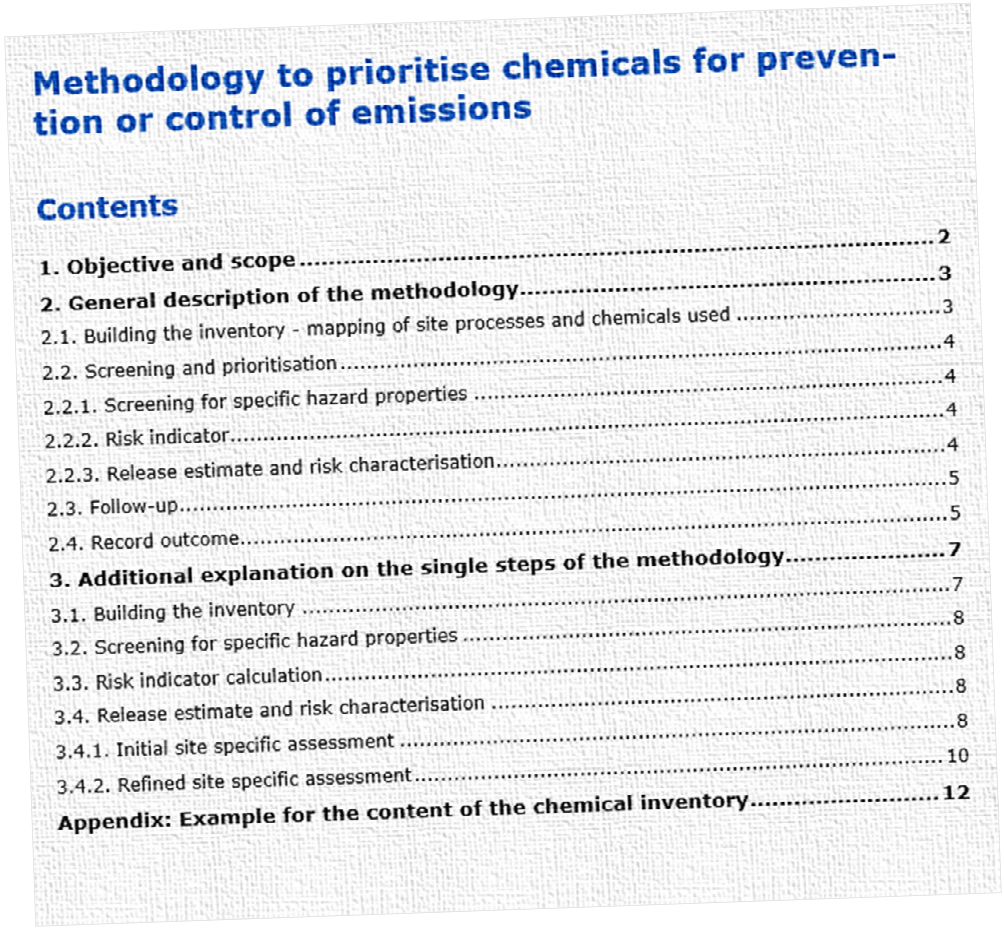
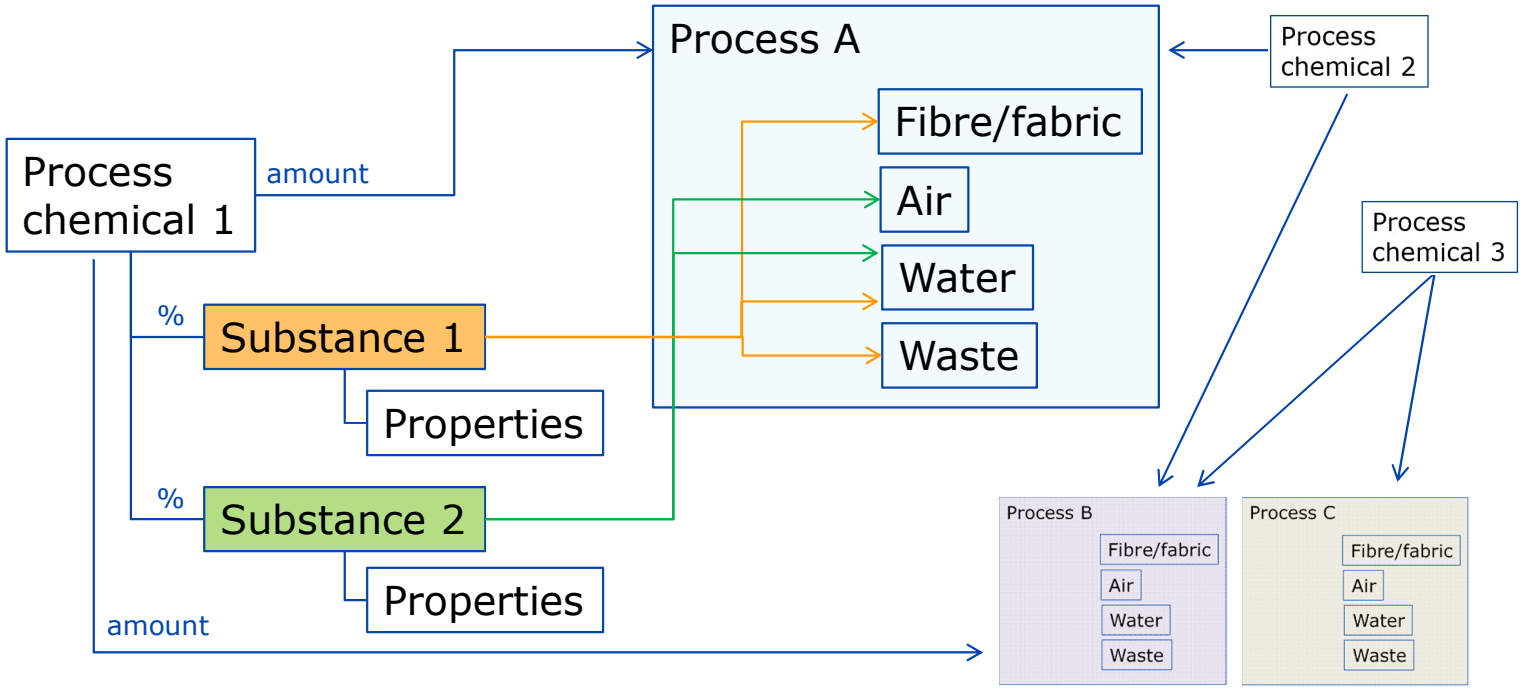


Methodology to prioritise chemicals for prevention or control of emissions

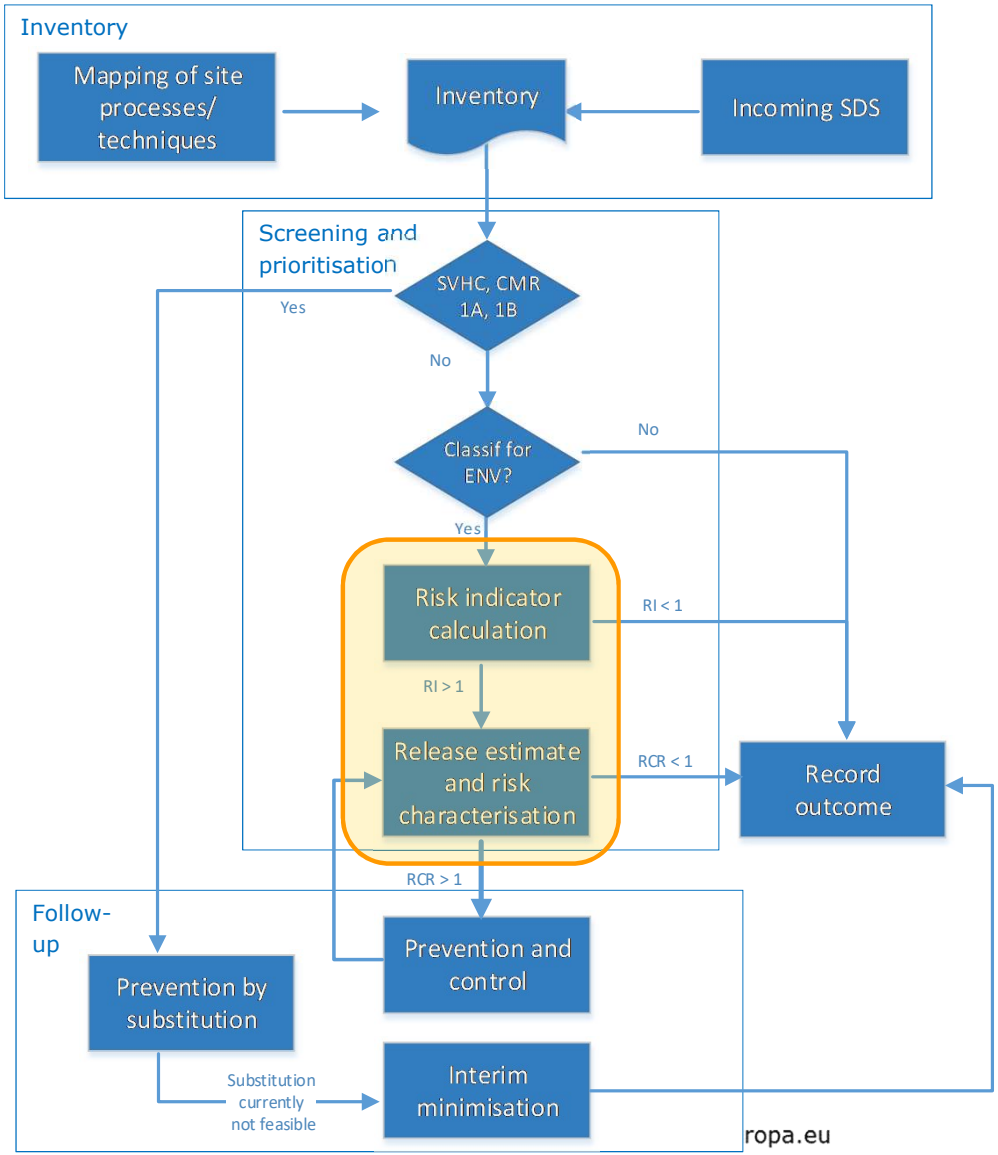
Contents

Based on site inventory of chemicals and stepwise prioritisation

Purpose of inventory



Methodology



Risk indicator (RI)

Simple and generic:

RI = DA (kg/d) * BF / ConvFactor / PNEC water (mg/l)

- If RI < 1, low priority substance
- If RI > 1, substance to be included in release estimate and risk characterisation

Risk indicator (RI)

RI = DA (kg/d) * BF / ConvFactor / PNEC water (mg/l)

***DA**: daily amount used*

***BF**: biodegradation factor for substances readily biodegradable (fixed factor 0.15), based on biodegradability screening tests, assumes that wastewater is biologically treated before release to surface water*

***ConvFactor**: fixed value of 20, proxy of predicted environmental concentration in water (PECwater), assumes 100% amount released to water. Takes into account default effluent flow rate (2000 m3/d), default dilution (10) and conversion factor of 1000 (g/kg)*

***PNEC water**: Predicted No Effect Concentration for fresh water*

Release estimate & risk characterisation ratio (RCR)

Substance and site specific

- Hazard assessment conclusion (PNEC) and phys-chem properties
- Conditions of use
- Estimation of releases from site
- Receiving water compartment

Modelling of predicted environmental concentration (PEC) and risk characterisation (Chesar or EUSES)

$$RCR = PEC/PNEC$$

- If RCR < 1, low priority substance
- If RCR > 1, take action (process efficiency, abatement, substitution, etc.)

Outcome

Identify and sort chemicals into categories:

- SVHC and CMRs 1A/1B
  - ➢ Prevention of releases via substitution is a priority
- Environmentally classified with RCR > 1
  - ➢ Measures for emission prevention and control (abatement plan) is a priority
- Chemicals which composition doesn't seem to raise major concern at present
  - Hazard profile of substances in products combined with information on amount used and process/fate suggest that prevention and control of emissions not a priority

Prioritisation of chemicals for prevention or control of emissions

Supply chain communication

REACH/CLP input to IED BREF review process

Starting Point

Current SDS

- Do not always include all necessary hazard and phys-chem information on ingredient substances
- Do not include meaningful safe use advice regarding environment

Objectives

SDS provide necessary information for recipients to

- Manage chemicals safely for humans and the environment
- Prioritise chemicals for prevention or control of emissions
- Fulfil legal duties

2nd REACH Review


EUROPEAN COMMISSION

Brussels, 10.1.2017
COM(2017) 12 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Safer and Healthier Work for All - Modernisation of the EU Occupational Safety and Health Legislation and Policy

{SWD(2017) 9 final}
{SWD(2017) 10 final}

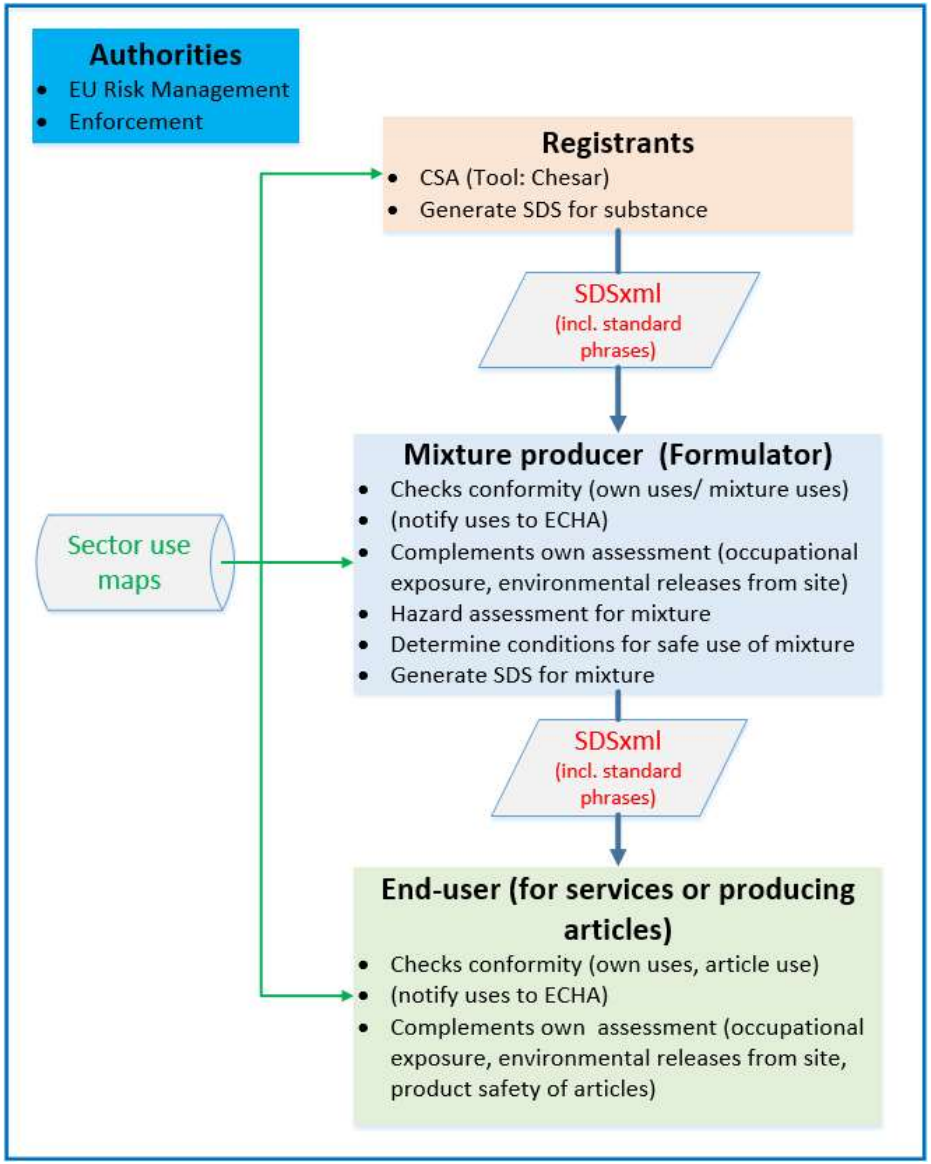
Identified the need to

- *consider inclusion of **minimum requirements for the exposure scenarios** for substances and mixtures (in safety data sheets)*
- *develop a methodology for safety data sheets for mixtures*

Action 3: Improving the workability and quality of extended Safety Data Sheets

On-going actions to improve SDS content and supply chain communication

Ongoing activities



More information:
https://echa.europa.eu/reach-review-action-3

Contributors welcome!

Prioritisation of chemicals for prevention or control of emissions

Supply chain communication

REACH/CLP input to IED BREF review process

ECHA's engagement in BREF review process

- Substance-related information for BREF review (support of KEI identification)
- Chemical management, inventory, methodology
- Upon request of EIPPCB
  - ➢ Textile BREF (started in 2017)
  - ➢ Ceramic BREF (started in 2019)
  - ➢ also FMP and SF BREFs

European Commission
Joint Research Centre

Learnings, overarching issues

- REACH substance registration database valuable for BREF update. However:
  - Registrants' use descriptions and the underlying use categorisation system are not fully suitable to derive an accurate inventory of hazardous substances.

➢ How to use the BREF update process to complement the overview on hazardous substances used in the sector?

1. Obtain data on process chemicals from industry (product types, classification, amount, composition);
   - via questionnaire
   - via response to overview generated from REACH registration data (model used with plastic additive supply chain)
2. Use product register data from the Nordic countries

Key messages

- Prioritisation of chemicals for prevention or control of emissions
- Supply chain communication
- REACH/CLP input to IED BREF review process

Site operators can contribute to identification of priority chemicals for release reduction

Development work for improvement is ongoing

Still new, but good collaboration and learning process

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