Downstream user chemical safety report

Downstream user update

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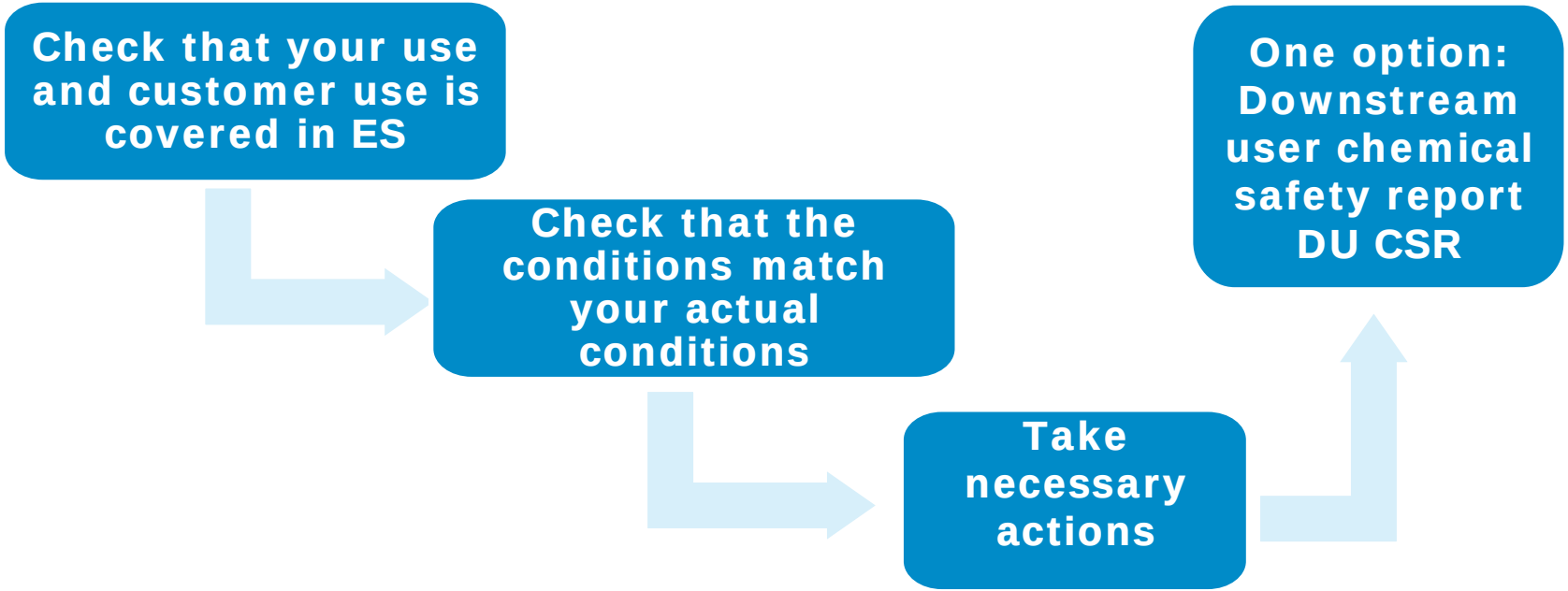
European Chemicals Agency

What to do when you receive exposure scenarios



Downstream user chemical safety report (DU CSR)

What it is

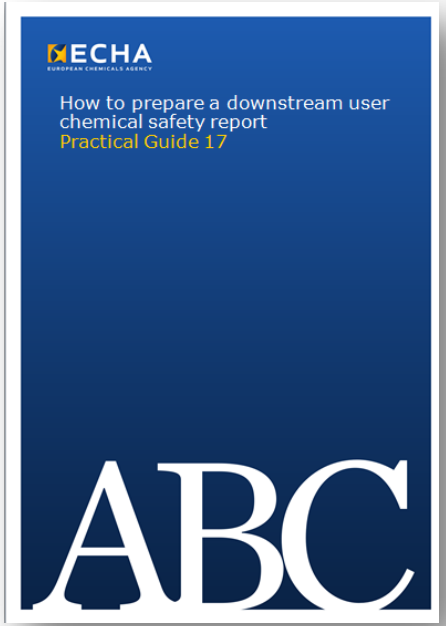
A report of the chemical safety assessment for a substance, for the use not covered in the exposure scenario from your supplier

What it's not

As extensive as a registrant chemical safety report

You can use the hazard assessment of the registrant (DNELs/PNECs, etc.)

Recent developments



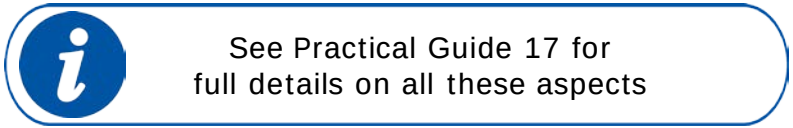
- Practical guide on how to prepare a DU CSR – published September 2015
- Cross-stakeholder taskforce on DU CSRs (Lead: DUCC)

CSR/ES Roadmap

Before you start

- Check the exemptions that may apply, these include:
  - Use <1 tonne per year;
  - Substance in low concentration in a mixture

- Consider the alternatives to a DU CSR, these include:
  - Contact your supplier
  - Implement the measures recommended in the ES

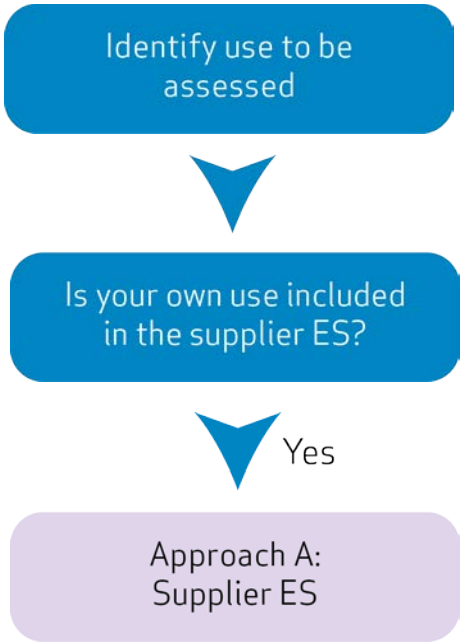


Initial step – gather substance and hazard information

- Exposure limit values, classification, substance properties etc.
- Primary source is the supplier
- Many other sources available

- Be confident that the information is reliable and trustworthy
- Document the source of information in the DU CSR

Approaches to preparing a DU CSR



Approach A: Supplier Exposure Scenario

- Base it on supplier ES
- Identify the conditions of use that differ
- Estimate exposure
  - Recalculation/scaling tool or exposure estimation tool
- Check risk is controlled
  - Risk characterisation ratio (RCR) <1

- Similar to checking ES using scaling
- First choice if feasible. Low complexity

Compare use and conditions of use

	Supplier	DU actual
Use	Dipping	Dipping
Duration	Full shift	<4 hours
Engineering controls	LEV	General ventilation

Use covered, but conditions of use not covered

Approach A: supplier exposure scenario

Compare exposure and risk

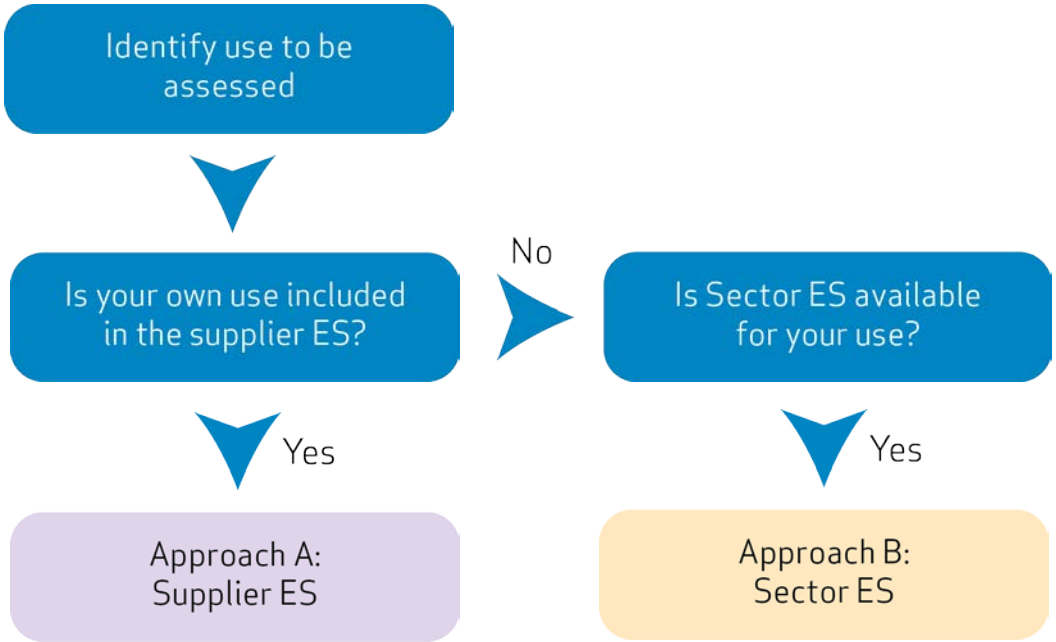
	Supplier	DU actual
Long-term inhalation exposure	2.5 mg/m3	10.5 mg/m3
RCR- long-term inhalation	0.49	0.81

Risk characterisation ratio (RCR) = exposure estimate/DNEL (or PNEC)
DNEL (inhalation):25 mg/m^3

Use recalculation/scaling tool or exposure estimation tool

Approach A: supplier exposure scenario

Approaches to preparing a DU CSR

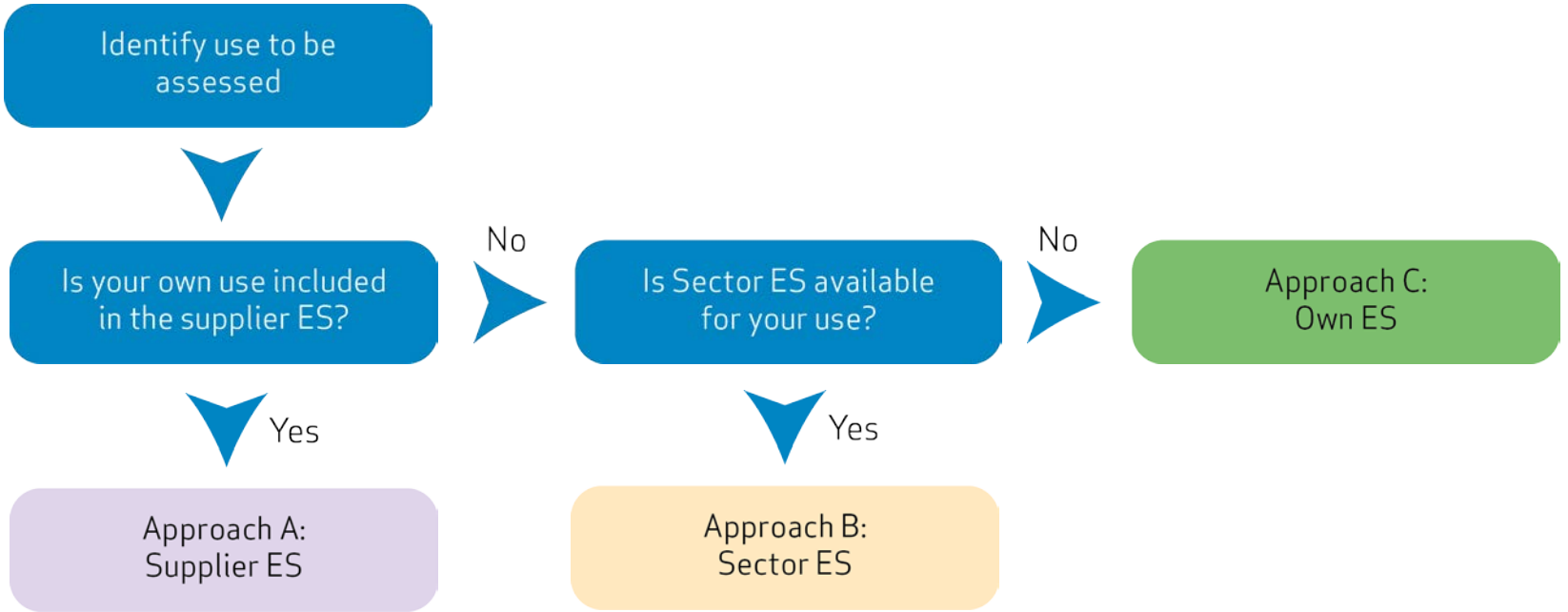


Approach B: Supplier Exposure Scenario

- Base it on sector ES for DU CSR
- Identify the sector CSA/ES that describes your use and conditions of use
- Confirm substance properties/use conditions match yours
- Confirm risk is controlled (RCR<1) using exposure estimate provided

- A suitable generic assessment (ES with exposure estimates) must be available
- To be developed by sector organisations

Approaches to preparing a DU CSR



Approach C: Own Exposure Scenario

- Generate your own ES
  - Describe your conditions of use
- Estimate exposure
  - Measured data or exposure estimation tool
- Check risk is controlled
  - Risk characterisation ratio (RCR) <1

- CSR from “first principles” - suitable for all situations
- Likely to draw upon site based risk assessment
- May require greater competence than the other approaches

Example: estimating the exposure based on measured data for that use

Year	Report ref.	No. of personal samples	Mean 8 hour TWA mg/m³	Geometric standard deviation	90th percentile 8 hour TWA mg/m³
2012	A-12345	9	0.27	2.0	0.56
2013	B-12345	7	0.20	1.9	0.41
2014	C-12345	9	0.18	2.7	0.45
	Overall	25	0.22	2.3	0.49

Risk characterisation ratio (RCR) = exposure estimate/DNEL (or PNEC)

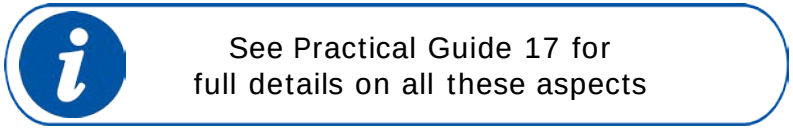
DNEL(inhalation):25 mg/m³ ; **RCR = 0.49 / 25 = 0.02**

See Practical Guide 17 for a comprehensive list of modelling tools that can also be used

Approach C: own exposure scenario

Before you finish

- Document the DU CSR
- Report to ECHA, if required
- Communicate the outcome to your customers, if relevant



Concluding points

- A DU CSR is typically within the competence of most environmental and health & safety professionals

- Take advantage of synergies with risk assessment under other environmental and health & safety legislation

Thank you!

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