Environmental Information for Mixtures

Annex to

Downstream Communication of Safe Use Information for Mixtures

for the Paint, Varnish, Printing Ink and Artists' Colours Industry

Date of Issue: 1st Edition January 2021

This Guide was drawn up by a CEPE/EuPIA Committee based on the best knowledge currently available. The information is provided in good faith and neither the Committee nor CEPE/EuPIA can accept any responsibility for consequences arising in certain cases should these recommendations be employed. Users are reminded that the text of the REACH Regulation is the only authentic legal reference and that the information in this Guide cannot serve as a substitute for legal advice and each company must decide the strategy to follow.

1. Introduction

This guidance forms an annex to the CEPE/EuPIA Guideline on Safe Use Information for Mixtures[1].

REACH requires that substance registrants will have determined the Environmental Release Categories for substances during their Chemical Safety Assessments. These set generic parameters to ensure that any emissions are adequately controlled. The coatings industry, through CEPE/EuPIA, have developed more tailored Specific Environmental Release Categories (SpERCs) for the various scenarios expected for the industry's products (see list in 1.4 below). The 'Bottom-up' SUMI approach simplifies the passing-on of information to downstream actors and avoids each substance in a formulation having to be assessed separately.

2. SpERCs

SpERCS are refinements of the ERC-based emission estimation. They describe realistic default values for various use scenarios (based on good practice information supplied by sector associations). They are documented in SpERC fact sheets.

The main purpose of SpERCs is to adjust release rates to an appropriate medium (e.g. air, water, waste) compared to standard assumptions in generic models. SpERCs give the typical maximum daily use quantities for products (and hence substances) for each scenario, allowing safe use to be shown without detailed calculation.

CEPE/EuPIA have developed 8 SpERCs for downstream industrial operations (point sources e.g. sites) and 8 for professional use (wide dispersive). As well as identifying the criteria for safe use of the industry's products, they can also provide more accurate data to allow substance manufacturers adapt their overall environmental assessment.

1 CEPE/EuPIA Guideline on Downstream Communication on Safe Use Information for Mixtures for the Paint, Varnish, Printing Ink and Artists' Colours Industry
https://members.cepe.org/cepe_v2/Item/NaN/46413

The CEPE/EuPIA SpERCs are:

Table 1

CEPE SpERC Code	Type of ingredient	Application area	Release to water expected?
CEPE SpERC 4.1a.v2	volatile	Application - industrial - spraying - indoor use - incineration	No
CEPE SpERC 4.1b.v2	volatile	Application - industrial - spraying - indoor use	No
CEPE SpERC 5.1a.v2	non-volatile	Application - industrial - spraying - indoor use	No
CEPE SpERC 5.2a.v2	non-volatile	Application - industrial - spraying - indoor use – powder	Yes 1%
CEPE SpERC 4.2a.v2	volatile	Application - industrial – non-spray- indoor use - incineration	No
CEPE SpERC 4.2b.v2	volatile	Application - industrial - non-spray - indoor use	No
CEPE SpERC 5.3a.v2	non-volatile	Application - industrial - non-spray - indoor use	Yes 0.2%
CEPE SpERC 5.4a.v2	non-volatile	Application - industrial - non-spray - indoor use – powder	No
CEPE SpERC 8a.2a.v2	volatile	Application - professional - brush/roller - indoor use	No
CEPE SpERC 8c.2a.v2	non-volatile	Application - professional - brush/roller - indoor use	No
CEPE SpERC 8d.2a.v2	volatile	Application - professional - brush/roller - outdoor use	No
CEPE SpERC 8f.2a.v2	non-volatile	Application - professional - brush/roller - outdoor use	Yes 1%
CEPE SpERC 8a.3a.v2	volatile	Application - professional - spraying - indoor use	No
CEPE SpERC 8c.3a.v2	non-volatile	Application - professional - spraying - indoor use	No
CEPE SpERC 8d.3a.v2	volatile	Application - professional - spraying - outdoor use	Yes 2%
CEPE SpERC 8f.3a.v2	non-volatile	Application - professional - spraying - outdoor use	Yes 2%

2. The Environmental SUMI Approach

Safe Use of Mixtures Information (SUMIs) aim to provide simplified and tailored information on the safe use of mixtures for end-users, covering both Human Health and Environmental aspects – as required by REACH. SUMIs are provided by Downstream Users (DUs) that place a product on the European market. Therefore, the Environmental SUMI can be considered as supplemental information to end-users in parallel to that provided on the product's safe use for human health (i.e. SUMI for workers). Consequently, they summarize the core information for the product's environmental safety.

In contrast to the human health assessment, the environmental safety assessment of a product does not depend on its ingredients' concentration, but on its general Conditions of Use (CoU) and its daily use amounts. CEPE/EuPIA have developed SpERCs that take reasonable generic tonnages of each ingredient into account (indicative use values) and a conservative use pattern is built. If actual uses are within the bounds of the relevant SpERC, a generic safe use statement for environmental SUMIs can be provided, see chapter 6.

3. General Considerations

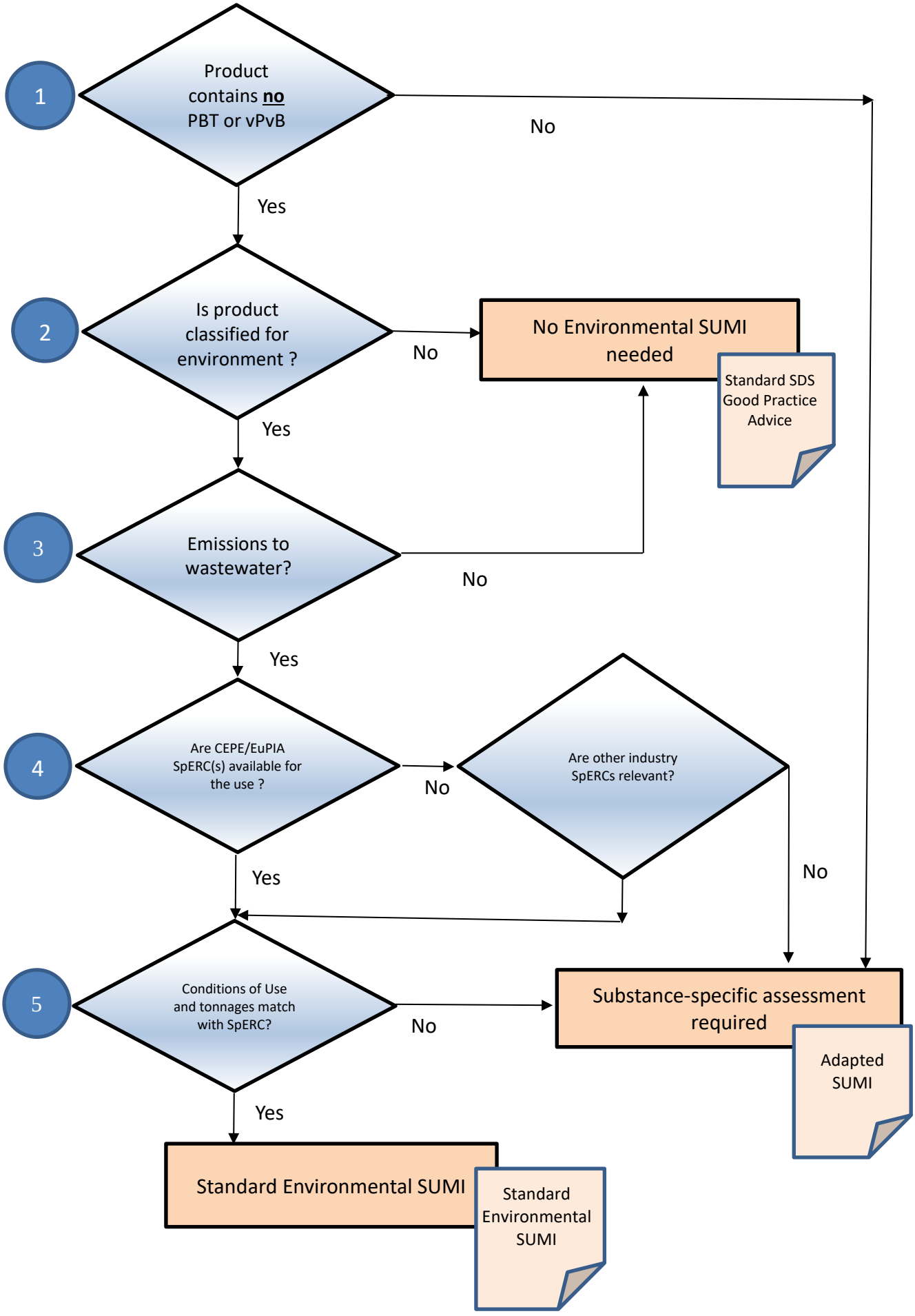
Some products will contain highly environmentally hazardous ingredients that cannot be proved to be safe by this bottom-up approach. Such substances are those classified as PBT, vPvB or with high M-factors if this leads to classification of the product for the environment (e.g. H400, H410, H411, H412, H413 or H420). It may still be possible to prove safe use in such cases, however, a generic communication will not be appropriate.

Emissions from wide dispersive uses due to professionals result in more or less evenly distributed substance emissions over time and regionally. Regarding water emissions, releases from wide dispersive uses such as professional application by brush/roller, are associated with a municipal sewage treatment plant and are covered by the relevant SpERCs. Release to soil and air are not considered to be relevant. However, for such professional uses, you do need to check whether the supplier COUs match with the relevant CEPE SpERCs – see chapter 5.

4. Basic Considerations of the Environmental SUMI

4.1 Is an environmental SUMI required?

The following flowchart leads through the decisions that need to be taken to determine if an environmental SUMI is actually required and what information is needed.


1
Product contains no PBT or vPvB
No
Yes
2
Is product classified for environment ?
No
No Environmental SUMI needed
Standard SDS Good Practice Advice
Yes
3
Emissions to wastewater?
No
Yes
4
Are CEPE/EuPIA SpERC(s) available for the use ?
No
Are other industry SpERCs relevant?
No
Yes
5
Conditions of Use and tonnages match with SpERC?
No
Substance-specific assessment required
Adapted SUMI
Yes
Standard Environmental SUMI
Standard Environmental SUMI

4.2 Practical Steps

4.2.1. Does the product contain any PBT or vPvB substances?

Irrespective of whether the mixture is classified as environmentally hazardous, if it contains any PBT or vPvB or high 'M Factor' substances contained in mixtures above their thresholds, then specific environmental information will need to be generated. See chapter 5.

4.2.2. Is the product classified for an environmental hazard?

If not classified as environmentally hazardous, there is no need to provide an environmental SUMI; the standard good practice advice, already in the SDS will suffice. Some substances such as aromatic hydrocarbon blends, terpenes, high-boiling alcohols, UV absorbers, catalysts, zinc compounds and a few special pigments can make a product environmentally hazardous and so require further action.

Substances hazardous to the ozone layer i.e. H420 are not known to be used by the coatings industry. Those classified as hazardous to the aquatic environment are only of concern if there are emissions of the product to wastewater (see Step 3).

4.2.3. Is emission to wastewater expected?

Emission to water is the only release of significance during the use of coatings. Regarding other media:

- There is no expected significant release of ozone depleting substances to air;
- There should be no unregulated disposal of waste;
- VOC emissions are controlled by compliance with Regulations and required risk reduction measures;
- Releases to soil are not expected.

As emission to water is only expected for certain industrial and professional operations only those CEPE SpERCs are of relevance (see table 1).

Therefore, if there is no release to water, then no environmental SUMI is required and the standards SDS text is adequate.

4.2.4. Is product use covered by one of the CEPE/EuPIA SpERCS?

SpERCs have been created by CEPE/EuPIA for application of the industry's products – see Chapter 5 below. If the use is covered by the SpERCs then the standard SUMI should be appropriate.

If there is not a CEPE/EuPIA SpERC that covers the product use, there may be SpERCs produced by other sectors which should be used e.g.

ACEA SpERCs for Industrial Use of Coatings in Installations with Wet Scrubber for Collection of Overspray[2].

In fact, a SpERC from another sector may be more appropriate for your use than the CEPE/EuPIA one. In such a case, this more appropriate SpERC should be used.

4.2.5. Does the product use match with SpERC conditions?

If there is a SpERC for the product use, you can assess qualitatively whether the expected actual use matches up with the Conditions of Use and tonnage quantities included in the SpERC.

You should also check that the supplier of the substances in your product has used the same conditions. Note that the SpERC limits are given for component groups e.g. binders, pigments, rather than for individual substances.

If the product use is covered by the tonnages and Condition of Use in the CEPE/EuPIA or other SpERC, then the standard environmental SUMI can be used.

If the product use is not covered by the Condition of Use in the CEPE/EuPIA SpERC, then specific restrictions are needed and a quantitative SUMI must be generated.

5. What to do if Use is Outside the SpERC Conditions

If you cannot answer yes to all of the questions in Chapter 4, you cannot use the standard environmental SUMI. You need to carry out a specific assessment (or ask your supplier) to determine the required conditions of use. You can then develop an adapted SUMI with specified Conditions of Use such as a limit on the quantities of product that can be used and/or further Risk Management Measures.

Tools are available, such as:

- the Cefic LCID method[3].
- The ECETOC Targeted Risk Assessment tool[4]

[2] The European Automobile Manufacturers' Association (ACEA) www.acea.be/publications/article/reach-extended-safety-data-sheets

[3] REACH Practical Guide on Safe Use Information for Mixtures under REACH - The Lead Component Identification (LCID) Methodology *https://cefic.org/guidance/reach-implementation/es-csr-csr-guidance/*

4 Targeted Risk Assessment (TRA) tool, www.ecetoc.org/tra

6. Communication to Customers

Text may be placed in chapter 12 of the SDS, as part of the health SUMI or as an additional Environmental SUMI.

Standard Environmental SUMI Phrase

The use of this product has been assessed to be safe for the environment. The assessment is based on the exposure parameters that are described for the product use in the corresponding CEPE/EuPIA SpERCs. For the disposal of product residues and waste please refer to section 13 of the Safety Data Sheet.

Where a separate substance risk assessment has been carried out, a specific communication will be required. An example is where a volume limit has been placed on the use of the product:

Adapted SUMI Phrase for quantity limit

Use has been assessed for point sources and is considered as safe for compound XXXX up to a volume of YYYY kg/d, taking the standard model into account

Other phrases may be more appropriate for the adaptation.