

FS Section	Content field
1. Title	1.1 Formulation of solid cosmetic and home care products (medium scale > 1,000 – 10,000t product/a)
	1.2 Cosmetics Europe / AISE SPERC 2.3.b.v3
2. Scope	2.1 Substance/Product Domain
	Substance types / functions / properties included or excluded: all substances used for the manufacturing of solid cosmetic and home care products
	Additional specification of product types covered: Solid cosmetic and home care products include the following: e.g. body care soap, scented candles, shoe wax, etc. The scope of this SPERC comprises products intended for consumer, professional and industrial applications.
	Inclusion of sub-SPERCs: n
	2.2 Process domain
	Description of activities/processes: Covers the whole process of formulation/ production of solid cosmetic and home care products. This includes storing, mixing, packaging of substances (as part of preparations) and associated laboratory activities. Losses of raw materials via volatilization are negligible. Routine equipment cleaning and maintenance is also included and leads to the highest contribution to environmental release.
	2.3 List of applicable Use Descriptors
	LCS: F
	SU: 0
3. Operational conditions	PC: 0, 35
	3.1 Conditions of use
	Location of use: indoor
	Water contact during use: y
	Connected to a standard municipal biological STP: y
	Rigorously contained system with minimisation of release to the environment: n
	Further operational conditions impacting on releases to the environment:
	<ul style="list-style-type: none"> <li>Measures to achieve efficient raw material use <ul style="list-style-type: none"> <li>Reduced number of transfer and cleaning operations through e.g. dedicated storage tanks for raw materials, premixes and final products and/or</li> <li>Spill protection including reuse of spill</li> </ul> </li> <li>Automation in raw materials handling (manual / automatic dosing): <ul style="list-style-type: none"> <li>Closed batch process and/or</li> <li>Semi Closed transfer system and/or</li> <li>Batch production of final product</li> </ul> </li> <li>Equipment cleaning with minimized emissions to wastewater may include: <ul style="list-style-type: none"> <li>(Dry) cleaning procedures with maximization of waste reuse in the process and/or</li> <li>Use of two-liner systems (i.e. single use disposable reactor cover that is incinerated after use as solid waste)</li> <li>Manual removal of residual products adhering to equipment (e.g. by manual scrubbing, vacuum cleaning, etc.)</li> </ul> </li> </ul>
	3.2 Waste Handling and Disposal
	Waste Handling and Disposal: <ul style="list-style-type: none"> <li>Residues which cannot be recycled are disposed of as chemical waste which may be handled by an external third party</li> </ul>
4. Obligatory RMMs onsite	RMM limiting release to air: none
	RMM Efficiency (air): n/a
	Reference for RMM Efficiency (air): n/a
	RMM limiting release to water: none
	RMM Efficiency (water): n/a
	Reference for RMM Efficiency (water): n/a
	RMM limiting release to soil: none
	RMM Efficiency (soil): n/a

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	Reference for RMM Efficiency (soil): n/a
5. Exposure Assessment Input	<b>5.1 Substance use rate</b>
	<b>Amount of substance use per day:</b> The indicative worst case substance use rate ( $M_{SPERC}$ ) can be calculated from the amount of finished product manufactured ( $M_{Finished}$ ) per day and the typical concentration of the substance in the finished product ( $C_{SP}$ ). $M_{SPERC}$ for several ingredient types and guidance for refinement can be found in background documentation.
	<b>Fraction of EU tonnage used in region:</b> n/a
	<b>Fraction of Regional tonnage used locally:</b> n/a
	<b>Justification / information source:</b> cf. AISE Background doc
	<b>5.2 Days emitting</b>
	<b>Number of emission days per year:</b> 300
	<b>Justification / information source:</b> cf. AISE Background document
	<b>5.3 Release factors</b>
	<b>sub-SPERC identifier:</b> n/a
	<b>ERC:</b> 2
	<b>sub-SPERC applicability:</b> n/a
	<b>5.3.1 Release Factor – air</b>
	<b>Numeric value / percent of input amount (Air):</b> 0.006 %
	<b>Justification of RFs (Air):</b> cf. AISE Background document
	<b>5.3.2 Release Factor – water</b>
	<b>Numeric value / percent of input amount (Water):</b> 0.1%
	<b>Justification of RFs (Water):</b> cf. AISE Background document
	<b>5.3.3 Release Factor – soil</b>
	<b>Numeric value / percent of input amount (Soil):</b> 0%
	<b>Justification of RFs (Soil):</b> cf. AISE Background document
	<b>5.3.4 Release Factor – waste</b>
	<b>Percent of input amount disposed as waste:</b> 0-6%
	<b>Justification of RFs:</b> cf. AISE Background document
References to SPERC Background Document <sup>1</sup>	
	Ref. A.I.S.E., International Association for Soaps, Detergents and Maintenance Products. 2021. Specific Environmental Release Categories (SPERCs) for the formulation of household care and professional cleaning and hygiene products

<sup>1</sup> The objective of this factsheet is to summarize the SPERC key facts provided in the corresponding SPERC background documents. It gives an overview of the SPERC essentials for the chemical safety assessment. A SPERC background document is a reference document, which provides the description of the emission situation(s) for a use specified by an industrial sector, the justification and applicability domain of the environmental release factors, and the references/information sources/methods used in the derivation of the release factors.