

FS Section	Content field
1. Title	1.1 Widespread use of volatile substances in adhesives / sealants - indoor
	1.2 FEICA SPERC 8a.3.v3
2. Scope	2.1 Substance/Product Domain
	<b>Substance types / functions / properties included or excluded:</b> Includes volatile ingredients which evaporate to a significant extent upon curing of the product. Volatile substances are defined by a boiling point threshold of $\leq 250^{\circ}\text{C}$ .
	<b>Additional specification of product types covered:</b> Covers the application of adhesives and sealants for a wide range of purposes by consumers and by professional uses. No distinction is made between water-borne and solvent borne adhesives and sealants.
	<b>Inclusion of sub-SPERCs:</b> n
	2.2 Process domain
	<b>Description of activities/processes:</b> Adhesives and sealants are applied between two substrates. Upon application curing takes place either via a chemical reaction or via evaporation of a solvent. Covers different adhesive and sealant application techniques such as brushing or rolling, spraying (non-industrial), dipping, extrusion from a cartridge, syringe- and bead-application.
	2.3 List of applicable Use Descriptors
	LCS: PW + C
	SU: 0
PC: 1	
3. Operational conditions	3.1 Conditions of use
	Location of use: Indoor
	Water contact during use: y+n
	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>Automation in raw materials handling (manual / automatic dosing): manual</li> </ul>
	<ul style="list-style-type: none"> <li>Measures to achieve efficient raw material use (e.g. water re-use, recovery of substances from waste etc.): Information on proper dosing is provided on packaging.</li> </ul>
	<ul style="list-style-type: none"> <li>Equipment Cleaning: Equipment cleaned with solvent (organic or water), washing disposed of with wastewater.</li> </ul>
	<ul style="list-style-type: none"> <li>Process characteristic leading to low emissions to air: Professional and consumer product use with limited or no technical control of emission. Upon curing, substances evaporate to the ambient air.</li> </ul>
3.2 Waste Handling and Disposal	
<ul style="list-style-type: none"> <li>Residues of products must be cured in the container before discarded via household waste.</li> <li>Larger solvent washing volumes are collected and disposed of as solvent waste.</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
Reference for RMM Efficiency (soil): n/a	
5. Exposure Assessment Input	5.1 Substance use rate
	Amount of substance use per day: to be assessed by registrant
	Fraction of EU tonnage used in region: 0.1 (default)
	Fraction of Regional tonnage used locally: 0.002 (default)
	Justification / information source: widespread use (REACH Guidance - Chapter R.16: Environmental exposure assessment)

FS Section	Content field
	<b>5.2 Days emitting</b>
	<b>Number of emission days per year:</b> 365
	<b>Justification / information source:</b> widespread use (REACH Guidance - Chapter R.16: Environmental exposure assessment)
	<b>5.3 Release factors</b>
	<b>sub-SPERC identifier:</b> n/a
	<b>ERC:</b> 8a
	<b>sub-SPERC applicability:</b> n/a
	<b>5.3.1 Release Factor – air</b>
	<b>Numeric value / percent of input amount (Air):</b> 98%
	<b>Justification of RFs (Air):</b> Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	<b>5.3.2 Release Factor – water</b>
	<b>Numeric value / percent of input amount (Water):</b> 1.5%
	<b>Justification of RFs (Water):</b> Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	<b>5.3.3 Release Factor – soil</b>
	<b>Numeric value / percent of input amount (Soil):</b> 0%
	<b>Justification of RFs (Soil):</b> Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	<b>5.3.4 Release Factor – waste</b>
	<b>Percent of input amount disposed as waste:</b> 2-6%
	<b>Justification of RFs:</b> OECD Environment, Health and Safety Publications Series on Emission Scenario Documents No. 22, EMISSION SCENARIO DOCUMENTS ON COATING INDUSTRY (Paints, Laquers and Varnishes), Paris 2009.
	<b>References to SPERC Background Document <sup>1</sup></b>
	<b>FEICA / EFCC (2018):</b> Specific Environmental Release Categories (SPERCs) for the wide spread use of adhesives, sealants and construction chemical 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.