

FS Section	Content field
1. Title	1.1 Industrial use of non-volatile reactive process regulators in polymerisation processes in Solvent-borne and Solvent-less Adhesives / Sealants
	1.2 FEICA SPERC 6d.1a.v1
2. Scope	2.1 Substance/Product Domain
	Substance types / functions / properties included or excluded: Includes reactive process regulators in polymerisation processes other than solvents (non-volatiles), that are defined by a boiling point threshold of >250°C.
	Additional specification of product types covered: Solvent-borne and solvent-less adhesives / sealants applied in roll coating and curtain-coating, dip-coating, syringe-, bead-application and spraying.
	Inclusion of sub-SPERCs: n
	2.2 Process domain
	Description of activities/processes: Charging equipment, application of adhesive / sealant, curing, equipment cleaning, maintenance. Upon curing and/or polymerization, substances are included into matrix without intended release to the environment.
	2.3 List of applicable Use Descriptors
	LCS: IS
	SU: 0
PC: 1, 9a, 9b	
3. Operational conditions	3.1 Conditions of use
	Location of use: Indoor
	Water contact during use: 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"> Automation in raw materials handling (manual / automatic dosing): High degree of automation in adhesive / sealant application
	3.2 Waste Handling and Disposal
Qualitative information on which types of waste occur from equipment cleaning, processing and RMM and how they are handled/disposed of: Equipment cleaned with organic solvent, washings are collected and disposed of as external solvent waste. Mats used for scavenging overspray are disposed as external waste (no wet-scrubbing).	
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: The indicative worst case substance use rates (M_{SPERC}) of several ingredient types and guidance for refinement can be found in background documentation.
	Fraction of EU tonnage used in region: n/a
	Fraction of Regional tonnage used locally: n/a
	Justification / information source: FEICA expert assessment.
	5.2 Days emitting
	Number of emission days per year: 300
Justification / information source: FEICA expert assessment.	

	5.3 Release factors
	sub-SPERC identifier: n/a
	ERC: 6d
	sub-SPERC applicability: n/a
	5.3.1 Release Factor – air
	Numeric value / percent of input amount (Air): 1.7%
	Justification of RFs (Air): Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	5.3.2 Release Factor – water
	Numeric value / percent of input amount (Water): 0%
	Justification of RFs (Water): Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	5.3.3 Release Factor – soil
	Numeric value / percent of input amount (Soil): 0%
	Justification of RFs (Soil): Tolls et al. 2016. Estimating emissions from adhesives/sealants uses and manufacturing for use in environmental risk assessment. Intergr Environ Assess Manag, (Jan, 2016)
	5.3.4 Release Factor – waste
	Percent of input amount disposed as waste: 0-6%
	Justification of RFs: OECD 2009, 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.
References to SPERC Background Document ¹	
	FEICA, 2023, Specific Environmental Release Categories (SPERCs) for the industrial use of adhesives and sealants

¹ 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.