

SPERC factsheet – *Uses in Coatings – Wide dispersive use (Solvent-borne)*

General Information	
Title of Specific ERC	Uses in Coatings (wide dispersive use): solvent-borne
Applicable ERC	8a – Wide dispersive indoor use of processing aids, open; 8d – Wide dispersive outdoor use of processing aids, open
Responsible	ESIG/ESVOC
Version	V1
Code	ESVOC 8.3b.v1 ESVOC 8.3c.v1
Scope	<p>Covers the use in coatings (paints, inks, adhesives, etc.) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation) and equipment cleaning, maintenance and associated laboratory activities.</p> <p><i>Substance Domain:</i> Applicable to petroleum substances (e.g., aliphatic and aromatic hydrocarbons) and petrochemicals (e.g., ketones, alcohols, acetates, glycols, glycol ethers, and glycol ether acetates).</p> <p><i>Size of installation:</i> <u>applicable to professional and consumer use with assumed use rate of 0.05% of regional volume</u></p> <p><i>Processing conditions:</i> Assumes some disposal via wastewater</p>
Coverage	<p>Professional Uses (Process Categories): 1 (use in closed process, no likelihood of exposure), 2 (use in closed, continuous process with occasional controlled exposure), 3 (use in closed batch process (synthesis or formulation)), 4 (use in batch and other process (synthesis) where opportunity for exposure arises), 5 (mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)), 8a (transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities), 8b (transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities), 10 (roller application or brushing), 11 (non-industrial spraying), 13 (treatment of articles by dipping and pouring), 15 (use as laboratory reagent), 19 (hand-mixing with intimate contact and only PPE available)</p> <p>Consumer Uses (Product Categories): 1 (adhesives, sealants), 4 (anti-freeze and de-icing products), 8 – excipient only (biocidal products; e.g., disinfectants, pest control), 9 (coatings and paints, thinners, paint removers, fillers, putties, plasters, modeling clay, finger paints), 15 (non-metal-surface treatment products), 18 (ink and toners), 23 (leather tanning, dye, finishing, impregnation and care products), 24 (lubricants, greases, release products), 31 (polishes and wax blends), 34 (textile dyes, finishing and impregnating products; including bleaches and other processing aids)</p>

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	Characteristics of specific ERC	Type of Input Information
Operational Conditions	Indoor use/outdoor use. Solvent-based process/product. Professional and consumer product use leading to emission of volatiles to air. Professional and consumer product use leading to disposal via the wastewater.	
Obligatory onsite RMMs	None assumed	
Substance Use Rate	0.05% (no geographical or temporal peaks in use) of Regional Tonnage based on default standard town population of 10000 inhabitants.	Default approach of the REACH guidance ¹
Days Emitting	365 days/year	Default approach of the REACH guidance ¹
Environmental Parameters for Fate Calculation	Assumed dilution factor in freshwater is 10. For marine assessments an additional tenfold dilution is assumed, i.e., dilution factor in marine water = 100.	ERC default settings ²

¹ECHA Guidance on information requirements and chemical safety assessment, Chapter R.16: Environmental Exposure Estimation, Section R.16.3.2

²ECHA Guidance on information requirements and chemical safety assessment, Chapter R.16: Environmental Exposure Estimation, Section R.16.6.3

http://echa.europa.eu/documents/10162/17224/information_requirements_r16_en.pdf

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	Characteristics of Specific ERC		Justification
Emission Fractions	To Air ESVOC 8.3b.v1 ESVOC 8.3c.v1	0.98 0.985	OECD Coatings ESD ³ . Suggested in ESD that losses may range from 98 – 100%. Assumption is made that professional users will utilize the most efficient practices.
	To Municipal Wastewater/Sewer/ Water courses	0.01	OECD Coatings ESD ³
	To Soil ESVOC 8.3b.v1 ESVOC 8.3c.v1	0.01 0.005	100% of substance is assumed to be released to the environment. Values derived on basis of mass conservation.

³OECD Series on Emission Scenario Documents, Number 22. July 2009. Emission Scenario Documents on Coating Industry (Paint, Laquers and Varishes).

http://www.oecd.org/document/55/0,3746,en_2649_34379_47582135_1_1_1_1,00.html

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	Type of RMM	Typical Efficiency
Appropriate Risk Management Measures (RMM) that may be used to achieve required emission reduction	Air	
	<i>Local/Onsite Technology</i>	Professional and Consumer product use with limited or no technical control of emission.
	Water	
	<i>Offsite Technology</i> Municipal wastewater treatment plant	The removal efficiency of a sewage treatment plant can be estimated. The standard estimation is via the SimpleTreat module of EUSES or ECETOC TRA. *Specific substance efficiency calculated via SimpleTreat and is assumed to represent default removal efficiency.
	<i>Local/Onsite Technology</i>	Professional and Consumer product use with limited or no technical control of emission.

Safe Use

Communication in SDS

The REACH registrant establishes a set of standard conditions of safe use for a substance (for wide dispersive use of a solvent-borne processing aid) by adopting the conditions specified in this SPERC and recommending a Required Removal Efficiency (RRE) for adequate risk reduction. If RRE = 0, wastewater emission controls (beyond those specified by the operational conditions) are not required to ensure safe use of the substance. If > 0, the RRE may be achieved via offsite municipal sewage treatment (providing substance removal efficiency, RE_{Offsite}).

Removal efficiency requirements, as dictated by the assumed operating conditions, are documented in the Chemical Safety Report and communicated in the Safety Data Sheet. All other parameters underlying a substance exposure scenario based on the SPERC 'Uses in coatings – wide dispersive use (solvent-borne)' are implicitly referred to via the reference to this SPERC.

Scaling

Not applicable for wide dispersive uses.

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ESVOC 8.3.b-c.v1

Determinant Label	Quali-/Quantitative	Value	Description of Value	Exposure route	Use conditions worker	Use condition consumer	Standard Phrase
Indoor/Outdoor use	Qual	Covers Indoor and Outdoor use		Air/ water/ soil	e-w-3	e-c-4	Same as “value”