

- FS Section	Content field	Explanation of content	CSR <sup>1</sup>	eSDS <sup>2</sup>	
1. Title	1.1 Title of SPERC	Coating use (consumer): solvent-borne	Y	Y	
	1.2 SPERC code	ESVOC SPERC 8.3c.v2	Y	Y	
2. Scope	2.1 Substance/Product Domain				
	Substance types / functions / properties included or excluded	Applicable to petroleum substances and petrochemicals.	Y	N	
	Additional specification of product types covered:	Includes a variety of aliphatic and aromatic hydrocarbons, ketones, alcohols, acetates, glycols, glycol ethers, and glycol ether acetates.	Y	N	
	Inclusion of sub-SPERCs	No	N	N	
	2.2 Process domain				
	Description of activities/processes:	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.	Y	Y	
	2.3 List of applicable Use Descriptors				
	LCS	C – Consumer use	Y	Y	
	SU	SU0 - Other	Y	Y	
	PC	PC35 – Washing and cleaning products	Y	Y	
2. Scope 3. Operational conditions	3.1 Conditions of use				
	Location of use	Indoor/Outdoor	Y	Y	
	Water contact during use	Yes	Y	Y	
	Connected to a standard municipal biological STP	Yes	Y	Y	
3. Operational conditions	Rigorously contained system with minimisation of release to the environment	No	Y	N	
	Further operational conditions impacting on releases to the environment	Volatile compounds prone to atmospheric release. Wastewater emissions generated from equipment cleaning with water.	Y	Y	
	3.2 Waste Handling and Disposal				
	Waste Handling and Disposal:	Although household hazardous waste (HHW) represents a small portion of the total domestic waste produced by consumers, it needs to be separated from normal trash and amassed for special handling. Many regional municipalities have established voluntary procedures for the identification, collection, and disposal of HHW in a safe and efficient manner. Once amassed, the HHW can be transported to collection sites where it is reused, recycled, or incinerated. The handling and disposal of hazardous waste needs to conform with established practices and local/regional	Y	N	

<sup>&</sup>lt;sup>1</sup> Explanations that are more detailed can be provided for the CSR..

<sup>&</sup>lt;sup>2</sup> For the ES for communication a standard phrase may be selected from the ESCom catalogue when available. When no phrase is available yet in the catalogue the proposed phrase can be reported here.



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		regulations in order to minimize environmental release and the potential for ecological harm. Inglezakis, V.J., Moustakas, K. (2015). Household hazardous waste management: A review. Journal of Environmental Management 150, 310- 321. doi: 10.1016/j.jenvman.2014.11.021.		
	RMM limiting release to air:	No obligatory RMMs.	Y	Y
	RMM Efficiency (air):	Emissions to air are minimized when the product is used in accordance with the manufacturers' instructions and / or the established practices	Y	Y
4. Obligatory RMMs onsite	Reference for RMM Efficiency (air):	BCERF, 1999. Safe Use and Storage of Hazardous Household Products. Comell University, Program on Breast Cancer and Environmental Risk Factors. Ithaca, NY. https://extensionhealthyhomes.org/Documents/fs22.safeUse.pdf.	Y	N
	RMM limiting release to water:	By default, the release to water is modified after biological treatment at a standard municipal sewage treatment plant (STP) with an effluent flow rate of 2,000 m <sup>3</sup> /day. The effluent discharge rate is applicable to a group of 10,000 inhabitants who generate 200 L of wastewater per person.	Y	Y
	RMM Efficiency (water):	The removal efficiency is provided by the SimpleTreat model, which takes into consideration the biodegradability, partitioning behaviour, and volatility of an organic substance. Degradation assumes the operation of an aerobic activated-sludge reactor under steady-state conditions.	Y	Y
	Reference for RMM Efficiency (water):	ECHA (2016). Guidance on Information Requirements and Chemical Safety Assessment. Chapter R.16: Environmental Exposure Assessment Version 3.0. European Chemicals Agency. Helsinki, Finland. <u>https://echa.europa.eu/documents/10162/13632/information_requirements</u> <u>r16_en.pdf</u>	Y	N
	RMM limiting release to soil:	No obligatory RMMs.	Y	Y
	RMM Efficiency (soil):	Emissions to soil are minimized when the product is used in accordance with the manufacturers' instructions and / or the established practices	Y	Y
	Reference for RMM Efficiency (soil):	BCERF, 1999. Safe Use and Storage of Hazardous Household Products. Comell University, Program on Breast Cancer and Environmental Risk Factors. Ithaca, NY. https://extensionhealthyhomes.org/Documents/fs22.safeUse.pdf.	Y	N
	5.1 Substance use rate			
5. Exposure Assessment Input	Amount of substance use per day:	Supplied by registrant	Y	Y
	Fraction of EU tonnage used in region:	10% (default value)	Y	N
	Fraction of Regional tonnage used locally:	0.05% (default value)	Y	N
	Justification / information source:	ECHA (2016). Guidance on Information Requirements and Chemical Safety Assessment. Chapter R.16: Environmental Exposure Assessment Version 3.0. European Chemicals Agency. Helsinki, Finland. <u>https://echa.europa.eu/documents/10162/13632/information_requirements</u> <u>r16_en.pdf</u>	Y	N
	5.2 Days emitting			
	Number of emission days per year:	365 (default value)	Y	Y
	Justification / information source:	ECHA, 2016. Guidance on Information Requirements and Chemical Safety Assessment. Chapter R.16: Environmental Exposure Assessment Version 3.0. European Chemicals Agency. Helsinki, Finland. <u>https://echa.europa.eu/documents/10162/13632/information_requirements</u> <u>r16_en.pdf</u>	Y	N
	5.3 Release factors			



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	sub-SPERC identifier:	ESVOC 8.3c.v2	Y	Ν
	ERC	ERC 8a ERC 8d		
	sub-SPERC applicability:	None	Y	Ν
	5.3.1 Release Factor – air			
	Numeric value / percent of input amount (Air)	98.5%	Y	Y
	Justification of RFs (Air):	The value was assigned using a mass balance approach that relied on air emission values provided in an Emission Scenario Document for a group of five different solvent-based coatings used in industrial, professional, or consumer applications (OECD, 2009). The air release associated with the consumer use of a decorative coating was adjusted upward to account for the emission increases that may be observed with other coating types used in this life cycle stage. OECD (2009). Emission Scenario Document on Coating Industry (Paints. Laquers and Varnishes). No. 22, Organisation for Economic Co-operation and Development. Paris, France. http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=en	Y	N
	5.3.2 Release Factor – water	Vini/mono(2003)240000anguage=en.		
	Numeric value / percent of input amount (Water):	1%	Y	Y
	Justification of RFs (Water):	The value was assigned using a mass balance approach that relied on water emission values provided in an Emission Scenario Document for a group of five different solvent-based coatings used in industrial, professional, or consumer applications (OECD, 2009). The water release associated with the consumer use of a decorative coating was used as provided without any further adjustment or modificaton. OECD (2009). Emission Scenario Document on Coating Industry (Paints. Laquers and Varnishes). No. 22, Organisation for Economic Co-operation and Development. Paris, France. <a href="http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=e">http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=e</a> nv/jm/mono(2009)24&doclanguage=en.	Y	N
	5.3.3 Release Factor – soil			
	Numeric value / percent of input amount (Soil):	0.5%	Y	Y
	Justification of RFs (Soil):	The release to soil was designed to preserve the mass balance following the identification of appropriate air and water release factors. Mass partitioning of the release to air, water, and soil ensures that all emissions are accounted for in a well-reasoned and scientifically-justified manner. OECD (2009). Emission Scenario Document on Coating Industry (Paints. Laquers and Varnishes). No. 22, Organisation for Economic Co-operation and Development. Paris, France. http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=en v/im/mono(2009)24&doclanquage=en.	Y	N
	5.3.4 Release Factor – waste			
	Percent of input amount disposed as waste:	7%	Y	N
	Justification of RFs:	The waste generation factor was taken from an Emission Scenario Document (ESD) for the consumer application of a decorative coating (OECD, 2009). The factor represents the amount of solvent waste that remains unused in the paint can and the waste that remains on the brushes and rollers following application. An adjustment factor has not	Y	Ν



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		been applied to this value since the assessment is representative of use conditions associated with a wide range of professional cleaning products. OECD (2009). Emission Scenario Document on Coating Industry (Paints. Laquers and Varnishes). No. 22, Organisation for Economic Co-operation and Development. Paris, France. http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=env/jm/mono(2009)24&doclanguage=en.			
References to SPERC Background Document					
	Reference to Background Document	ESIG/ESVOC (2019). SpERC Background Document (1 <sup>st</sup> draft). Specific Environmental Release Categories (SpERCs) for the consumer use of solvents and solvent-borne substances in coatings, cleaners, and functional fluids. European Solvents Industry Group. Brussels, Belgium.	Y	N	