

- FS Section	Content field	Explanation of content	CSR ¹	eSDS ²
1. Title	1.1 Title of SPERC	Functional fluid use (consumer): solvent-borne	Y	Y
	1.2 SPERC code	ESVOC SPERC 9.13c.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:	Use as functional fluids (e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids (in professional equipment including maintenance and related material transfers and use of similar sealed items containing functional fluids for consumers.	Y	Y
	2.3 List of applicable Use Descriptors			
	LCS	C – Consumer use	Y	Y
	SU	SU0 – Other	Y	Y
	PC	PC16 – Heat transfer fluids	Y	Y
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
	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

¹ Explanations that are more detailed can be provided for the CSR.

² For the ES for communication a standard phrase may be selected from the ECom 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.		
4. Obligatory RMMs onsite	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 established practices.	Y	Y
	Reference for RMM Efficiency (air):	BCERF, 1999. Safe Use and Storage of Hazardous Household Products. Cornell 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 ³ /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. https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf	Y	N
	RMM limiting release to soil:	No obligatory RMMs.	Y	Y
	RMM Efficiency (soil):	Emissions to air are minimized when the product is used in accordance with the manufacturers' instructions and established practices.	Y	Y
	Reference for RMM Efficiency (soil):	BCERF, 1999. Safe Use and Storage of Hazardous Household Products. Cornell University, Program on Breast Cancer and Environmental Risk Factors. Ithaca, NY. https://extensionhealthyhomes.org/Documents/fs22.safeUse.pdf .	Y	N
5. Exposure Assessment Input	5.1 Substance use rate			
	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. https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf	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. https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf	Y	N
	5.3 Release factors			

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	sub-SPERC identifier:	ESVOC 9.13c.v2	Y	N
	ERC	ERC 9a ERC 9b		
	sub-SPERC applicability:	None	Y	N
5.3.1 Release Factor – air				
	Numeric value / percent of input amount (Air)	5%	Y	Y
	Justification of RFs (Air):	The value has been adopted from an authoritative literature source that documents the default release factors for all recognized Environmental Release Categories (ERCs). The value above represents the average default release factor for the widespread use of a functional fluid at indoor and outdoor locations (ERC 9a and ERC 9b). ECHA (2016). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.16: Environmental exposure assessment Version 3.0. Appendix A.16-1. Helsinki, Finland. (https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf).	Y	N
5.3.2 Release Factor – water				
	Numeric value / percent of input amount (Water):	5%	Y	Y
	Justification of RFs (Water):	The value has been adopted from an authoritative literature source that documents the default release factors for all recognized Environmental Release Categories (ERCs). The value above represents the average default release factor for the widespread use of a functional fluid at indoor and outdoor locations (ERC 9a and ERC 9b). (NB This value has been changed from 2.5% to 5% based on the updated water release factor for ERC 9a published in the most recent version of the guidance document.) ECHA (2016). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.16: Environmental exposure assessment Version 3.0. Appendix A.16-1. Helsinki, Finland. (https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf).	Y	N
5.3.3 Release Factor – soil				
	Numeric value / percent of input amount (Soil):	5%	Y	Y
	Justification of RFs (Soil):	The value has been adopted from an authoritative literature source that documents the default release factors for all recognized Environmental Release Categories (ERCs). The value above represents the average default release factor for the widespread use of a functional fluid at indoor and outdoor locations (ERC 9a and ERC 9b). (NB This value has been changed from 2.5% to 5% since the indoor soil release value for ERC 9a is irrelevant (i.e. not applicable) and not zero as assumed.) ECHA (2016). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.16: Environmental exposure assessment Version 3.0. Appendix A.16-1. Helsinki, Finland. (https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf).	Y	N
5.3.4 Release Factor – waste				
	Percent of input amount disposed as waste:	15%	Y	N
	Justification of RFs:	The value was derived from published information on the rate of generation rate of household hazardous waste (HHW) and the sales	Y	N

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		<p>volume for formulated consumer products containing a volatile solvent. The production of HHW in the US was estimated to of 8.8 kg/person/yr (PSI, 2004). A survey of the sales volume for solvent-containing consumer products in California was 5944 tonnes/day and the total state population that same year was 39 million people (CARB, 2018). A ratio of the annual per capita HHW production rate with the annual per capita sales volume of volatile consumer products yielded a waste release factor of 15%. Since this value considers a large array of consumer products capable of producing a waste fraction that can vary considerably, an uncertainty factor has not been applied.</p> <p>PSI (2004). Paint Product Stewardship: A Background Report for the National Dialogue on Paint Product Stewardship. Product Stewardship Institute. Lowell, MA. https://cdn.ymaws.com/productstewardship.site-ym.com/resource/resmgr/Resources_-_PS_Products/Background_Report_for_the_Na.pdf.</p> <p>CARB (2018). Draft 2013, 2014, and 2015 Consumer & Commercial Product Survey Data Summaries. California Air Resources Board. Sacramento, CA. https://www.arb.ca.gov/consprod/survey/2013-2014-2015-data_release.htm.</p>		
References to SPERC Background Document				
	Reference to Background Document	ESIG/ESVOC (2019). SpERC Background Document (1 st 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