

REVIEW REPORTING			
General information			
Data set name	Alkyd dispersion; 51% in water		
Data set UUID and version number	Aggregated: 89fea964-195b-4dc7-9076-d7bda3dfb110 Disaggregated: 9df733b8-2189-499b-a1c4-eb03c16c901c Version number: 01.00.001		
Data set locator	CEPE LCDN node: Chemicals for Paints datasets for PEF calculations, reference package EF3.0; https://lcdn-cepe.org/		
Review commissioner(s)	The European association of Paint, Printing Inks and Artists' colours manufacturers (CEPE)		
Reviewer name(s) and affiliation(s), contact	Max Sonnen, Ecomatters B.V., max.sonnen@ecomatters.nl; Natalia Chebaeva, Ecomatters B.V., natalia.chebaeva@ecomatters.nl		
Review type applied, and compliance with EF requirements for review	Review type 2, EF review compliance fulfilled.		
Method used for review , and review scope	The dataset has been reviewed with a check of each single datapoint. Suggestions for the dataset documentation were provided, discussed, and implemented. Review was carried out with study of the provided data set ILCD files, data set documentation, a series of dialogues with the data set developer and data entry practitioner, and additional information provided on request.		
Date of review completion	22.04.2022		
Reviewed against/Compliance system name	PEF/OEF		
Compatibility with EF reference package (Version)	EF3.0 (3f5b0b56-60e6-4df7-869d-a811830386d9)		
Overall compliance assessment			
Aspect	yes	no	comments
Compliance with specific EF requirements	X		Electricity consumption is modelled with the average EU grid mix 1kV-50kV (EU+EFTA+UK). No climate change modelling is implemented in the foreground. Documented climate change modelling is assumed to refer to the background modelling and not reviewed. No agricultural modelling is carried out in the foreground system. Agricultural modelling in the background processes is not reviewed. Transport on the foreground is modelled as one single sub-process for each transport dataset entering the gate of the central dataset modelled, without differentiation on transported material/ingredient/component. The transported weight and distance are modelled as one value without indication

			as two separate parameters at the level of the central dataset. The modelling deviates from the EF modelling requirements and agreed upon with the data providers subject confidentiality. No capital goods modelling is implemented in the foreground system, marked as cut-off. The assumption of the capital goods to fall under the cut-off of 3% when allocated per kg of production is deemed reasonable. Water flows are mainly regionalized, with separation of withdrawal, release and evaporation for both foreground and background. Non-regionalised water flows are explained as allocated to countries not covered by the EF reference package, according to the EF guidance. Land related flows are partially regionalised. Non-regionalised flows are possible to be allocated to countries not listed in the EF reference package. No duplicated or waste flows detected. No duplicated elementary flows detected.
Allocation rules clearly explained and consistent	X		Allocation - mass, is documented for the dataset. Allocated co-products or allocation factors are not disclosed.
Circular Footprint Formula (correct implementation)	X		Reference product is assumed without recycled content, and is an intermediate product (end of life of the product is outside the system boundary). Circular footprint formula (CFF) is therefore not applied in the foreground modelling as not relevant. CFF application in the background system is assumed in accordance to the background data sets used (primarily, as concerns packaging materials modelling and energy recovery in waste treatment), and is not included into the scope of review.
LCIA results consistency	X		LCIA results are reported consistently. Verification of the reported characterised results is done with Look@LCA. No discrepancies above 1% detected.
Nomenclature			
Correctness and consistency of applied nomenclature (use of Specific EF reference package; Correct nomenclature of other flows, processes etc.)	X		Nomenclature of the process and relevant flows is compliant (Reference package EF3.0), and applied correctly and consistently.
Documentation			

Appropriateness of documentation.	Information on the dataset name, UUID, reference flow and its qualities, technology and geographical coverage are indicated. Modelling choices and principles are listed (LCI method and approaches, cut-off, specific modelling), explanations are given to specific modelling and deviations from the EF guidance and listed principles. A link to the flow diagramme is included. Data selection principles, data treatment, data quality assessments are presented. LCIA per impact category are provided in accordance to the EF3.0 reference package. Review details are given. Administrative data is sufficient, including publication and ownership, and intended applications. Allocation method used is declared but is not detailed in the documentation as of particular allocations applied on foreground and background allocation factors used. Provided range of documentation is EF compliant (with reservations), and allows for a fair assessment of the dataset. Provided metadata is detailed enough, and mainly respects ILCD entry-level and additional EF requirement. Deviations do not impede a fair assessment of the dataset use.		
Appropriateness / correctness of documentation format (ILCD Format)	Documentation format is appropriate, all required documentation fields are filled in providing the relevant metadata for the dataset. Documentation check tool applied, with no detected issues.		
Validation with ILCD Validation tool	X		ILCD validation tool is applied, no issues detected.
DQRs	X		<p>The DQR is calculated by the dataset developer and data entry practitioner. DQR is calculated for the reference year 2019.</p> <p>DQR (P) = 1 DQR (Ti) = 1.5 DQR (Te) = 2 DQR (G) = 2.39</p> <p>Total DQR score is 1.72. The calculations have been carried out in compliance with the Guide for EF compliant datasets, and calculations reviewed. Assessment of individual representativity indicators per activity or secondary data were not verified.</p>
Cut-off	X		Capital goods are excluded from the foreground modelling, and based on the expert judgement fall under the cut-off threshold (3%). No other cut-offs are applied as all known energy and material flows within the system boundaries are declared. With that a
Additional information	User is advised to consider the fact that modelling of relevant packaging materials is included in the "blackbox" modelling of the reference product, and that capital goods and infrastructure are not included in the foreground modelling.		

The reviewers declare on their responsibility that the reviewed data set is compliant with the Environmental Footprint general and specific compliancy rules, with the deviation notions provided.

Max Sonnen,
Ecomatters B.V.

A handwritten signature in black ink, appearing to read 'max', with a stylized flourish at the end.

Natalia Chebaeva,
Ecomatters B.V.

A handwritten signature in blue ink, appearing to read 'Natalia', with a stylized flourish at the end.