

LCI Review report (reviewed against "ILCD Data Network - entry-level requirements")

Draft template

Table 1: General review reporting items

REVIEW REPORTING			
General information			
Data set name	<ul style="list-style-type: none">• TDI-based PU foam without FR, high density 35 to 40 kg/m³• TDI-based PU foam without FR, low density 18 to 25 kg/m³• TDI-based PU foam with FR, density 40 to 54 kg/m³• MDI-based viscoelastic PU foam without FR, density 45 to 53 kg/m³ production mix, at gate		
Data set UUID and version number	To be determined		
Data set locator (e.g. Permanent URI, URL, contact point, or database name and version, etc.)			
Data set owner	EUROPUR aisbl		
Review commissioner(s)	EUROPUR aisbl		
Reviewer name(s) and affiliation(s), contact	Matthias Schulz DEKRA Assurance Services GmbH		
Review type applied	Independent external		
Date of review completion (DD/MM/YYYY)	20/08/2015		
Reviewed against / Compliance system name	ILCD Data Network - Entry-level requirements		
Reviewer assessment:			
Aspect	Yes	No	Comments
Quality compliance (aspects of ISO 14040 & 14044) fulfilled (see table 2)	X		
Method compliance (as in ISO 14040 & 14044) fulfilled and documented in data set	X		
Nomenclature compliance (see table 3) fulfilled	X		
Documentation compliance (see table 3) fulfilled	X		
Review compliance (Independent external review OR independent	X		

internal review + review report) fulfilled			
Overall compliance with ISO 14040 & 14044	X		
Overall compliance with "Compliance system"	X		
Date, location, reviewer signature	Stuttgart, 20/08/2015		

Table 2: Specific/detailed review reporting items for LCI data set: Quality compliance (ISO 14040 & 14044). Please note that for aggregated LCI result data sets, this includes key processes in the background system.

ITEMs	Comments
Time-related coverage/representativeness: “age of data and the minimum length of time over which data should be collected” “qualitative assessment of the degree to which the data set reflects the true population of interest”	Very Good Foreground: 12 month averages representing the year 2013. Background: 2011—2013, Maximum temporal validity until end of 2023. (p.17)
Geographical coverage/representativeness: “geographical area from which data for unit processes should be collected to satisfy the goal of the study” “qualitative assessment of the degree to which the data set reflects the true population of interest”	Good European production average. Data was collected from 7 producers and 9 plants from a total of six different European countries. (p. 4 & 17)
Technology coverage/representativeness: “specific technology or technology mix” “qualitative assessment of the degree to which the data set reflects the true population of interest”	Very Good Technology mix representing European production (see above). Estimated 60% flexible PU foam production in 2013. The specific technologies of the flexible PU foam production of the companies are considered. (p.16-17)
Precision: “measure of the variability of the data values for each data expressed (e.g. variance)”	Good Relevant foreground data is primary data, or modelled based on primary information sources of the owners of the technologies. The participating companies represent 60% of the European flexible PU foam production volume in 2014 based on EUROPUR estimates. (p. 19)
Completeness:	Good

ITEMs	Comments
<p>“percentage of flow that is measured or estimated”; assessed on level of process</p>	<p>In general, the collected and applied data can be stated as complete, because no flows are omitted. However, for some additives used in the MDI and/or TDI unit process (<0.1 % m/m of product output) were neglected.</p> <p>(p. 18)</p>
<p>Consistency:</p> <p>“qualitative assessment of whether the study methodology is applied uniformly to the various components of the analysis”</p>	<p>Very Good</p> <p>To ensure consistency only primary data of the same level of detail and background data from the databases mentioned under ‘data sources’ were used. While building up the model, cross-checks concerning the plausibility of mass and energy flows were continuously conducted. The methodological framework is consistent throughout the whole model as the same methodological principles are used both in foreground and background system.</p> <p>(p.18-19)</p>
<p>Sources of the data; Appropriateness of use primary/secondary data source</p>	<p>The main data source was a primary data collection from European flexible PU foam producers, providing site-specific gate-to-gate production data for processes under operational control of the participating companies. Data concerning the main precursors, i.e. TDI and MDI as well as long-chain polyether polyol were taken from existing Eco-profiles [ISOPA]. All other input and output processes were taken from the GaBi database.</p> <p>(p.18)</p>
<p>Uncertainty of the information (e.g. data, models and assumptions).</p>	<p>Variation of single data was not recorded. Variation of the model/dataset not applicable due to vertical average of production lines and technologies.</p> <p>Reliability of the collected primary data can be considered very high due to almost exclusively measured data across the entire sample. Furthermore, the background data can be considered very precise.</p> <p>(p.19)</p>
<p>Others</p>	

Table 3: Specific/detailed review reporting items for LCI data set: Nomenclature and Documentation

ITEMs	Comments
Nomenclature	
Correctness and consistency of applied nomenclature (Preferred use of ILCD flows etc.; Correct nomenclature of other flows; Exclusion of not permissible waste flows, sum indicator elementary flows etc.)	Yes – database format is aligned and compatible with ILCD requirements (consistent nomenclature) -- conducted spot checks on the LCI (xls and ILCD xml)
Documentation	
Appropriateness of documentation (see Document “Documentation of LCA data sets”)	Yes – meta-data completed and appropriate; documentation aligned with ILCD standards.
Appropriateness / correctness of documentation form (ILCD Format)	Yes – Database format is aligned and compatible with ILCD requirements (consistent format of meta-data and content) -- spot checks were conducted on dataset.