DRAFT PRODUCT CATEGORY RULES (PCR)
DATE 2024-05-21

VIRGIN OLIVE OIL AND ITS FRACTIONS
PRODUCT GROUP: UN CPC 21537

2010:07
VERSION 3.0.2

VALID UNTIL: 2025-03-31

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1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD® System: a programme for type III environmental declarations[1] according to ISO 14025:2006. Environmental Product Declarations (EPD) are voluntary documents for a company or organisation to present transparent information about the life cycle environmental impact for their goods or services.

The rules for the overall administration and operation of the programme are the General Programme Instructions, publically available at www.environdec.com. A PCR complements the General Programme Instructions and the standards by providing specific rules, requirements and guidelines for developing an EPD for one or more specific product categories (see Figure 1). A PCR should enable different practitioners using the PCR to generate consistent results when assessing products of the same product category.

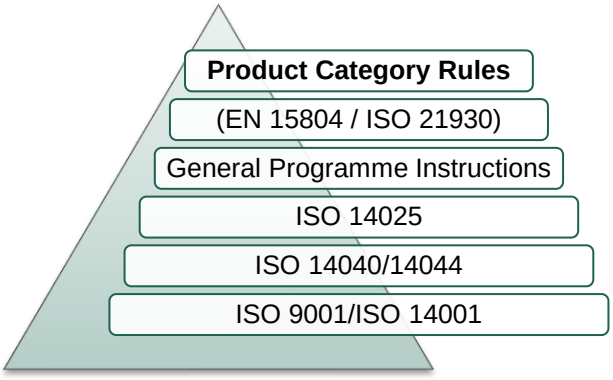

Figure 1 Illustration PCR in relation to the hierarchy of standards and other documents.

Within the present PCR, the following terminology is adopted:

- The term “shall” is used to indicate what is obligatory.
- The term “should” is used to indicate a recommendation, rather than a requirement.
- The term “may” or “can” is used to indicate an option that is permissible

For the definition of terms used in the document, see the normative standards.

A PCR is valid for a pre-determined period of time to ensure that it is updated at regular intervals. The latest version of the PCR is available via www.environdec.com. Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR document may be given via the PCR Forum at www.environdec.com or sent directly to the PCR moderator during its development or during the period of validity.

Any references to this document should include the PCR registration number, name and version.

The programme operator maintains the copyright of the document to ensure that it is possible to publish, update when necessary, and available to all organisations to develop and register EPDs. Stakeholders participating in PCR development should be acknowledged in the final document and on the website.

[1] Type III environmental declarations in the International EPD® System are referred to as EPD, Environmental Product Declarations.

2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Virgin olive oil and its fractions
Registration number and version:	2010:07, version 3.0.2
Programme:	The International EPD® System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: info@environdec.com
PCR moderator:	Vania Massari, Monini S.p.A., vania.massari@monini.com Chiara Maran, Ambiente Italia S.r.l., chiara.maran@ambienteitalia.it
PCR Committee:	Monini S.p.A. Ambiente Italia S.r.l. Additional contributors to previous versions of the PCR: RodaxAgro Ltd, Environment & Quality Dr. K. Abeliotis, Assistant Prof., Department of Home Economics and Ecology, Harokopio University Dr. Michael Kornaros, Assistant Professor, University of Patras, Department of Chemical Engineering Cichelli, Full Professor of Commodity Science, Department of Economics University "G. D'Annunzio", Pescara, Italy
Date of publication and last revision:	2024-05-21 (version 3.0.2). A version history is available in Section 8.
Valid until:	2025-03-31
Schedule for renewal:	A PCR is valid for a pre-determined period of time to ensure that it is updated at regular intervals. When the PCR is about to expire the PCR moderator shall initiate a discussion with the Secretariat how to proceed with updating the document and renewing its validity. A PCR document may be revised during its period of validity provided significant and well-justified proposals for changes or amendments are presented. See www.environdec.com for up-to-date information and the latest version.
Standards conformance:	▪ General Programme Instructions of the International EPD® System, version 3.02, based on ISO 14025 and ISO 14040/14044 ▪ PCR Basic Module, CPC Division 21 Meat, fish, fruit, vegetables, oil and fats, version 3.001, dated 2018-11-06
PCR language(s):	This PCR was developed and is available in English. In case of translated versions, the English version takes precedence in case of any discrepancies.

2.2 SCOPE OF PCR

2.2.1 PRODUCT CATEGORY DEFINITION AND DESCRIPTION

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of Virgin Olive oil and its fractions and the declaration of this performance by an EPD. The product category corresponds to UN CPC 21537 Olive oil, crude and more specifically: virgin olive oil and its fractions.

The product category referred to the present PCR is virgin olive oil and its fractions. In particular the ISIC–CPC 2.0 (*http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=25*) classification is:

- Division 21 - Meat, fish, fruit, vegetables, oils and fats
  - Group: 215 - Animal and vegetable oils and fats
    - Class: 2153 - Vegetable oils, crude
      - **Subclass: 21537 - Olive oil, crude and more specifically: virgin olive oil and its fractions.**

Neither lampante olive oil nor olive-residue oil crude are included in the scope.

The product category includes “virgin olive oils” according to the Designations and Definitions of IOOC http://www.internationaloliveoil.org/web/aa-ingles/oliveWorld/aceite.html and for virgin olive oils produced in Europe all the regulations and directives for the common organisation of the market in oils and fats are applicable e.g. Reg.1019/2002, Reg. 796/2002 etc. for European Union.

All international, regional and national legal requirements on environment and food safety have to be respected. For virgin olive oils with a protected denomination of origin and protected indication of origin the specific rules for each respective “Production Guidelines” shall be applicable e.g. Reg. 510/2006 for virgin olive oil produced in European Union, with specific emphasis on traceability. For organic virgin olive oil, the respective standards and regulations apply, e.g. Reg. 534/2007 for European Union. Any claims made about the product must be verifiable.

2.2.2 GEOGRAPHICAL REGION

This PCR is applicable to be used globally.

2.2.3 EPD VALIDITY

An EPD based on this PCR shall be valid from its registration and publication at www.environdec.com and for a five year period starting from the date of the verification report (“approval date”), or until the EPD has been de-registered from the International EPD® System.

During the validity period surveillance follow up shall be agreed with the verifier in order to evaluate if the content is still consistent with the current situation. It is not necessary to perform a full LCA, only the monitoring of main parameters is requested. The surveillance verification could be organised as documental check aimed to the evaluation of the main environmental aspects relevant for the LCA calculation. During the validation maintenance procedure, at least the following parameters should be monitored:

- Crop yield
- Water consumption
- Electricity and fuel consumption
- Product composition
- Packaging

An EPD shall be updated and re-verified during its validity if changes in technology or other circumstances have led to:

- an increase of 10% or more of any of the indicators listed in Section **Error! Reference source not found.**,
- errors in the declared information, or
- significant changes to the declared product information, content declaration, or additional environmental information.

If such changes have occurred, but the EPD is not updated, the EPD owner shall contact the Secretariat to de-register the EPD.

3 PCR REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the process described in the General Programme Instructions of the International EPD® System, including PCR review and open consultation.

3.1 PCR REVIEW

3.1.1 VERSION 1.0

The PCR was reviewed by the Technical Committee of the International EPD® System.

3.1.2 VERSION 2.0

The PCR was reviewed by the Technical Committee of the International EPD® System.

3.1.3 VERSION 3.0

PCR review panel:	The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via info@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee and were excused from the review.
Chair of the PCR review:	Adriana del Borghi
Review dates:	2019-05-20 until 2020-02-10

3.2 OPEN CONSULTATION

3.2.1 VERSION 1.0

Version 1.0 of this PCR was available for open consultation from 2010-01-20 until 2010-02-19.

3.2.2 VERSION 2.0

Version 2.0 of this PCR was available for open consultation from 2013-11-07 until 2014-01-07.

3.2.3 VERSION 3.0

This PCR was available for open consultation from 2019-02-28 until 2019-04-28, during which any stakeholder was able to provide comments by posting on the PCR forum on www.environdec.com or by contacting the PCR moderator.

Stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders. No stakeholders provided comments during the open consultation.

3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs were considered in order to avoid overlaps in scope. The existence of such documents was checked in the public PCR listings of the following programmes based on ISO 14025 or similar:

- International EPD® System. www.environdec.com.
- The EU pilot for Product Environmental Footprint Category Rules (PEFCR)

- The IBU programme (Institut Bauen und Umwelt e.V.)
- JEMAI EcoLeaf: http://www.ecoleaf-jemai.jp/eng/pcr.html
- JEMAI CFP Program: https://www.cfp-japan.jpGlobalEPD: www.aenor.com
- EPD Italy: www.epditaly.it

The draft Product Environmental Footprint Category Rules (PEFCR) for olive oils (version v0.6.3.4 of 31.05.2018) was analysed for the preparation of this PCR. The main differences between the documents are:

- Impact indicators (EPD vs PEF)
- System boundary setting for recycled material (cut-off versus circular footprint formula)
- Methodology based on distributing environmental impacts according to the economic value (price) of the different by-products and not on a with the mass allocation criteria.

Besides the draft PEFCR during the PEF pilot phase, no existing PCRs with overlapping scope were identified in ISO 14025 programmes.

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed in order to enable publication of Environmental Product Declarations (EPD) for this product category based on ISO 14025, ISO 14040/14044 and other relevant standards to be used in different applications and target audiences.

3.5 UNDERLYING STUDIES

The methodological choices made during the development of this PCR (functional unit/declared unit, system boundary, allocation methods, impact categories, data quality rules, etc.) in this PCR were primarily based on the following underlying studies:

- Life-cycle assessment (LCA) of the Monini Extra Virgin Olive Oil -LCA Report; Ambiente Italia S.r.l. (November2018)
- Environmental Product Declaration – Classico Extra Virgin Olive oil Monini S.p.A., Registration number S-P-00384, version 2 of 06/12/2018
- Environmental Product Declaration – Delicato Extra Virgin Olive oil Monini S.p.A., Registration number S-P-00386, version 2 of 06/12/2018
- Environmental Product Declaration – Granfruttato Extra Virgin Olive oil Monini S.p.A., Registration number S-P-00383, version 2 of 06/12/2018
- Environmental Product Declaration – D.O.P. Umbria Extra Virgin Olive oil Monini S.p.A., Registration number S-P-00648, version 1 of 06/12/2018
- Environmental Product Declaration – BIOS Organic 100% Extra Virgin Olive oil Monini S.p.A., Registration number S-P-00647, version 1 of 06/12/2018
- PEF screening report in the context of the EU Product Environmental Footprint Category Rules (PEFCR) Olive Oil Pilot (version 1.0 of 13/10/ 2015), Tuomisto (European Commission, Joint Research Centre), Russo (University of Foggia), Michalopoulos (RodaxAgro Ltd), Pattara (University G. D'Annunzio), Polo Palomino (CO2 consulting S.L.)
- PEF Product environmental study supporting study for Monini Bios organic Extra Virgin Olive oil (version 1 of 01/07/2016)

4 GOAL AND SCOPE, LIFE CYCLE INVENTORY AND LIFE CYCLE IMPACT ASSESSMENT

The goal of this section is to provide specific rules, requirements and guidelines for developing an EPD for the product category as defined in Section 2.2.1.

4.1 DECLARED UNIT

The declared unit shall be defined as 1 litre of product, including its packaging[2], to be used by consumers as salad dressing and for cooking. Whenever other pack sizes are marketed, the calculations shall be made for each pack size, but the results to be reported in the EPD per pack size shall be expressed on a litre base. In any case, it shall be unambiguously described, to provide the basis for product comparison.

The type, weight and material that the container/packaging is made of, shall also be described and taken in account in the analysis. If a range of packages is to be marketed, the calculations shall be made for each package separately.

The declared unit shall be stated in the EPD. The environmental impact shall be given per declared unit in its packaging. Different packaging solutions shall be presented in the EPD in different tables if -according to the calculations for each- they differ more than 5% in overall environmental performance regarding the mandatory impact indicators (see § 5.4.5). If they differ less than 5%, they may be presented as one representative product, in which case a variation range description shall be presented in the declaration.

The reference flow in the Life Cycle Assessment shall be defined at the customer gate, at the shelf or the retailer or at the marketplace.

This PCR enables comparison between packed olive oils exclusively on the basis of the Declared Unit, however, the current Declared Unit for packed olive oils does not encompass the full breadth of quality/health functions provided to the consumers by the olive oils (such as its antioxidant properties and significant contribution to human health) and the packaging (such as preserving the quality/health functions provided by olive oil over time).

4.2 REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

The International EPD® System uses an approach where all attributional processes from “cradle to grave” should be included using the principle of “limited loss of information at the final product”. This is especially important in the case of business-to-consumer communication.

The scope of this PCR and EPDs based on it is **cradle-to-grave**.

4.3.1 LIFE CYCLE STAGES

For the purpose of different data quality rules and for the presentation of results, the life cycle of products is divided into three different life cycle stages:

- Upstream processes (from cradle-to-gate)
- Core processes (from gate-to-gate)
- Downstream processes (from gate-to-grave)

In the EPD, the environmental performance associated with each of the three life-cycle stages above shall be reported separately. The processes included in the scope of the PCR and belonging to each life cycle stage are described in Sections 4.3.1.1–4.3.1.3.

[2] The impact of packaging is included in the Decalared Unit, but its weight does not contribute to the weight of the Declared Unit.

4.3.1.1. Upstream processes

The following attributional processes are part of the product system and classified as upstream processes:

- Operations for the transformation of land use, if the olive grove lifetime is expected to be less than 25 years.
- Operations for the establishment of the olive grove including the irrigation system, if the olive grove lifetime is expected to be less than 25 years.
- Production of olive fruit (CPC 0145) used in the core process at the farms from the cradle, for which the following inflows shall be considered:
  - Production of seeds, cuttings or plants for the cultivation.
  - Production of inputs used, such as Fertilizers and Plant Protection Products.
  - Waste management.
  - Cultivation phase (e.g. land preparation, planting operation, irrigation, fertilization, plant protection products application, harvesting).
  - Emissions from fertilizers and plant protection products/pesticides application.
  - Wood use as by-product of renovation pruning or end of life of olive trees.
  - External transportation of inputs to production region and sites.
  - Extraction and use of water.
  - Production of auxiliary products for harvesting (nets, crates, detergents etc.)
- Impacts due to the production of electricity and fuels used in the upstream module (generation of energy wares -fuel and electricity- used in agriculture at the farm).
- Manufacturing of primary, secondary and tertiary packaging

Upstream processes not listed may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule (by applicable units in the inventory phase) in Section 4.5.

4.3.1.2. Core processes

The following attributional processes are part of the product system and classified as core processes:

A. EXTRACTION PHASE

- External transportation of olive fruit & raw materials to the extraction facility
- Washing of olive fruit, removal of leaves and foreign materials
- Extraction, i.e. crushing of olive fruit, malaxing and separation of virgin olive oil from solids and water-soluble material, including the use of water (if applicable), filtering (if applicable) and blending (if applicable)
- Storage of virgin olive oil
- Maintenance (e.g. of the machines)
- Waste treatment of waste generated during manufacturing
- Wastewater treatment
- Production of electricity and fuels used in the extraction module

Pomace produced in this phase is considered as a co-product.

B. PACKAGING PHASE

- External transportation of packaging & raw materials to the packing unit
- Transportation of virgin olive oil to the packing unit
- Packaging of virgin olive oil

- Internal transportation
- Storage of packed product before dispatch
- Waste management generated during packing
- Production of electricity and fuels used in the packaging module

Manufacturing processes not listed may also be included. The production of the raw materials used for production of all product parts shall be included. A minimum of 99% of the total weight of the declared product including packaging shall be included.

The technical system shall not include:

- Manufacturing of production equipment, buildings and other capital goods.
- Business travel of personnel.
- Travel to and from work by personnel.
- Research and development activities.

4.3.1.3. Downstream processes

The following attributional processes are part of the product system and classified as downstream processes:

- Transportation from production/storage site to an average distribution platform, if applicable
- Transportation to the retailer
- Customer or consumer use of the product
- End-of-life processes of any wasted part of the product (management or recycling)
- End-of-life processes of packaging waste (recycling or handling)

The downstream module shall be based on relevant scenarios for the geographical area in which the EPD® is valid.

4.3.2 OTHER BOUNDARY SETTING

4.3.2.1. Boundary towards nature

Boundaries to nature are defined as flows of material and energy resources from nature into the system. Emissions to air, water and soil cross the system boundary when they are emitted from or leaving the product system.

4.3.2.2. Boundaries in the life cycle

See Section 4.3.1. The EPD may present the information divided into additional sub-divisions.

4.3.2.3. Boundaries towards other technical systems

See section 4.6.2.

4.3.2.4. Boundaries in time

Data for the upstream processes shall be traceable, documented and representative for the year/time frame for which the EPD is valid. EPD validity may be extended to 5 years on the condition that underlying data keep supporting it for the follow years.

However, as yields (especially for olive trees which tend to biennially) show high temporal variability, in order to support the full five year validity of the EPD, yield data shall take this variability in account, e.g. by using one of the two following approaches, taking account of the data quality rules described in chapter 4.7:

These approaches can lead to the maximum period of EPD validity.

4.3.2.5. Boundaries towards geography

The data for the core module shall be representative for the actual production processes and representative for the site/region where the respective process is taking place.

4.4 SYSTEM DIAGRAM

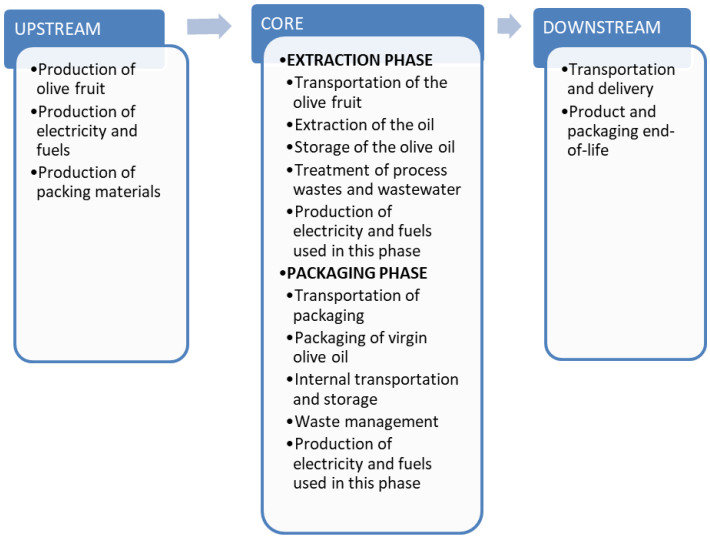

Figure 2 System diagram illustrating the processes that are included in the product system, divided into upstream, core and downstream processes.

4.5 CUT-OFF RULES

Data for elementary flows to and from the product system contributing to a minimum of 99% of the declared environmental impacts shall be included (not including processes that are explicitly outside the system boundary as described in Section 4.3).

The check for cut-off rules in a satisfactory way is through the combination of expert judgment based on experience of similar product systems and a sensitivity analysis in which it is possible to understand how the un-investigated input or output could affect the final results.

4.6 ALLOCATION RULES

4.6.1 CO-PRODUCT ALLOCATION

The following step-wise procedure shall be applied for multifunctional products and multiproduct processes:

1. Allocation shall be avoided, if possible, by dividing the unit process into two or more sub-processes and collecting the environmental data related to these sub-processes.
2. If allocation cannot be avoided, the inputs and outputs of the system shall be partitioned between its different products or functions in a way that reflects the underlying physical relationships between them; i.e. they should reflect the way in which the inputs and outputs are changed by quantitative changes in the products or functions delivered by the system.
3. Where physical relationships alone cannot be established or used as the basis for allocation (or they are too time consuming), Table 1 shall be consulted for key processes. For processes not listed the most suitable allocation procedure shall be used and documented.

PROCESS	MAIN PRODUCT AND CO-PRODUCTS	ALLOCATION INSTRUCTION
Cultivation of olives (upstream module)	Wood produced by pruning, tree renovation or end of trees life	product volume or mass
Production of olive and olive oil (upstream and core module)	different grades or qualities of virgin olive oil (such as organic/non-organic, or virgin olive oil/extra virgin oil/estrissimo virgin oil)	product volume or mass
Production of olive oil (core module)	Pomace	economic
Filtration of raw oil (core module)	Filtration boards used for filtration of raw oil, sludge from storage tanks, cellulose and diatomaceous earth used for filtration of raw oil (if they are marketed)	economic

Table 1 Allocation procedure for key processes in the product system, if steps 1 and 2 are not possible.

4.6.2 REUSE, RECYCLING, AND RECOVERY

In the framework of the International EPD® System, the methodological choices for allocation for reuse, recycling and recovery have been set according to the polluter pays principle (PPP). This means that the generator of the waste shall carry the full environmental impact until the point in the product's life cycle at which the waste is transported to a scrapyard or the gate of a waste processing plant (collection site). The subsequent user of the waste shall carry the environmental impact from the processing and refinement of the waste but not the environmental impact caused in the "earlier" life cycles. See General Programme Instruction for further information and examples.

4.7 DATA QUALITY REQUIREMENTS

An LCA calculation requires two different kinds of information:

- data related to the **environmental aspects** of the considered system (such materials or energy flows that enter the production system). These data usually come from the company that is performing the LCA calculation.
- data related to the **life cycle impacts** of the material or energy flows that enter the production system. These data usually come from databases.

Data on environmental aspects shall be as specific as possible and shall be representative of the studied process.

Data on the life cycle of materials or energy inputs are classified into three categories – specific data, selected generic data, and proxy data, defined as follows:

- **specific data** (also referred to as "primary data" or "site-specific data") – data gathered from the actual manufacturing plant where product-specific processes are carried out (extraction facility, storage, packing facility), and data from other parts of the life cycle traced to the specific product system under study, e.g. olive fruit, packaging material or electricity, provided by a contracted supplier that is able to provide data for the actual delivered services, transportation that takes place based on actual fuel consumption, and related emissions, etc. This data shall be traced to the volume of virgin olive oil corresponding to the EPD per year.
- **generic data** (sometimes referred to as "secondary data"), divided into**:**
  - **selected generic data** – data from commonly available data sources (e.g. commercial databases and free databases) that fulfil prescribed data quality characteristics for precision, completeness, and,
  - **proxy data** – data from commonly available data sources (e.g. commercial databases and free databases) that do not fulfil all the data quality characteristics of "selected generic data".

As a general rule, specific data shall always be used, if available, after performing a data quality assessment. It is mandatory to use specific data for the core processes as defined above. For the upstream processes, downstream processes, and infrastructure, generic data may also be used if specific data are not available. For the phase olive fruit production specific data for the operations at the olive groves shall be documented, traceable up to the volume of virgin olive oil corresponding to the EPD per year. Data integrity shall be supported by quality procedures, such as documentation, document control and internal audits.

The manufacturing company shall describe accurately the typical production system on which assumptions for the calculations are based, including information on number of farmers involved, area of olive groves (ha) and volume of olive oil produced in each year of the period of validity. Such information shall be more detailed in order to support any claims of outstanding performance which is attributed to special production processes e.g. organic, intensive etc.

Selected generic data shall be used for other parts of the upstream LCI, such as the life-cycles of plant protection products and fertilizers, i.e. data from commonly available data sources such as free or commercial databases, describing specific inputs or usual processes in olive growing or in other crops equivalent from a technical point of view.

Any data used should preferably represent average values for a specific reference year. However, the way these data are generated could vary, e.g. over time, and in such cases, they should have the form of a representative annual average value for a specified reference period. Such deviations should be declared.

4.7.1 RULES FOR USING GENERIC DATA

The attributional LCA approach in the International EPD® System forms the basic prerequisites for selecting generic data. To allow the classification of generic data as “selected generic data”, they shall fulfil selected prescribed characteristics for precision, completeness, and representativeness (temporal, geographical, and technological), such as:

- the reference year must be as current as possible and preferably assessed to be representative for at least the validity period of the EPD,
- the cut-off criteria to be met on the level of the modelled product system are the qualitative coverage of at least 99% of energy, mass, and overall environmental relevance of the flows,
- completeness in which the inventory data set should, in principle, cover all elementary flows that contribute to a relevant degree of the impact categories, and
- the representativeness of the resulting inventory in the given temporal, technological, and geographical reference should, as a general principle, be better than ±5% of the environmental impact of fully representative data.

Section 4.8 provides a list of recommended databases/data sets to be used for generic data.

If selected generic data that meets the requirements of the International EPD® System are not available as the necessary input data, proxy data may be used and documented. The environmental impacts associated with proxy data shall not exceed 10% of the overall environmental impact from the product system.

The EPD may include a data quality declaration to demonstrate the share of specific data, selected generic data and proxy data for the environmental impacts.

4.8 RECOMMENDED DATABASES FOR GENERIC DATA

In Table 2 are listed recommended databases for generic data. Please note that this listing does not imply that other data that fulfil the data quality requirements may not be used and that data quality assessment shall also be performed for the data sets in the recommended database by an LCA practitioner.

PROCESS	GEOGRAPHICAL SCOPE	RECOMMENDED DATASET	DATABASE
Steel	Europe	-	World steel www.worldsteel.org
Primary copper Copper products	Europe	-	ICA (International Copper Association) www.copperinfo.com ECI (European Copper Institute – Life Cycle Centre) www.copper-life-cycle.org
Electricity	Europe	-	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions, etc. www.iea.org/Textbase/stats/index.asp
Aluminium	Europe	-	EAA (European Aluminium Association) www.aluminium.org
Plastic	Europe	-	PE Plastics Europe (former APME Association of Plastics Manufacturers in Europe) www.plasticseurope.org
Chemicals	Europe	-	PE Plastics Europe (former APME Association of Plastics Manufacturers in Europe) www.plasticseurope.org
Transports	Europe	-	NTM (Network for Transport and Environment) or regional alternatives www.ntm.a.se/eng-index.asp
Building materials and products	Europe	-	BEES (Building for Environmental and Economic Sustainability www.bfrl.nist.gov/oae/software/bees.html
Waste management	Europe	-	European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/

Table 2 Suggested databases for generic data.

4.9 IMPACT CATEGORIES AND IMPACT ASSESSMENT

The EPD shall declare the default impact categories as described in the General Programme Instructions. The characterisation models and factors to use for the default impact categories are available on www.environdec.com and shall be updated on a regular basis based on the latest developments in LCA methodology and ensuring the market stability of EPDs. The source and version of the characterisation models and the factors used shall be reported in the EPD. Alternative regional life cycle impact assessment methods and characterisation factors are allowed to be calculated and displayed in addition to the default list. If so, the EPD shall contain an explanation of the difference between the different sets of indicators, as they may appear to the reader to display duplicate information.

4.10 OTHER CALCULATION RULES AND SCENARIOS

4.10.1 UPSTREAM PROCESSES

The following requirements apply to the upstream processes:

- Data referring to processes and activities upstream in a supply chain over which an organisation has direct management control shall be specific and collected on site. The requirement for specific data shall include amounts of each input used (e.g. fertilizers, water, energy etc.) and amounts of each output including pruned wood, cut trees, weed biomass removed from the fields, waste as well as actual olive fruit weight.
- If there are no site or region-specific data available, emissions due to fertilizer, pesticide and insecticide use shall be calculated according to the following rules.

  Fertiliser (and manure) emissions shall be differentiated per fertilizer type and cover as a minimum:

  - NH3, to air (from N-fertiliser application)
  - N2O, to air (direct and indirect) (from N-fertiliser application)
  - CO2, to air (from lime, urea and urea-compounds application)
  - NO3, to water unspecified (leaching from N-fertiliser application)
  - PO4, to water unspecified or freshwater (leaching and run-off of soluble phosphate from P-fertiliser application)
  - P, to water unspecified or freshwater (soil particles containing phosphorous, from P-fertiliser application).

  The LCI for phosphorus (P) emissions should be modelled as the amount of P emitted to water after run-off and the emission compartment 'water' shall be used. When this amount is not available, the LCI may be modelled as the amount of P applied on

the agricultural field (through manure or fertilisers) and the emission compartment 'soil' shall be used. In this case, the run-off from soil to water is part of the impact assessment method.

The LCI for nitrogen (N) emissions shall be modelled as the amount of emissions after it leaves the field (soil) and ending up in the different air and water emission compartments per amount of fertilisers applied. N emissions to soil shall not be modelled. The nitrogen emissions shall be calculated from Nitrogen applications of the farmer on the field and excluding external sources (e.g. rain deposition).

Emission	***Compartment***	***Value to be applied***
N_2O (synthetic fertiliser and manure; direct and indirect)	*Air*	*0.022 kg N_2O/ kg N fertilizer applied*
NH_3 (synthetic fertiliser)	*Air*	*kg NH_3= kg N * FracGASF= 1*0.1* (17/14) = 0.12 kg NH_3/ kg N fertilizer applied*
NH_3 (manure)	*Air*	*kg NH_3= kg N*FracGASF= 1*0.2* (17/14) = 0.24 kg NH_3/ kg N manure applied*
NO_3^- (synthetic fertiliser and manure)	*Water*	*kg NO_3^-= kg N*FracLEACH = 1*0.3*(62/14) = 1.33 kg NO_3^-/ kg N applied*
P based fertilisers	*Water*	*0.05 kg P/ kg P applied*

Table 3 Parameters to be used when modelling nitrogen (N), emission in soil.

The LCI for potassium (K) emissions should be modelled as the amount of K emitted to water after run-off and the emission compartment 'water' shall be used. When this amount is not available, the LCI may be modelled as the amount of K applied on the agricultural field (through manure or fertilisers as K_2O) times 0.7 and the emission compartment 'fresh water' shall be used.

Drained peat soils shall include carbon dioxide emissions based on a model that relates the drainage levels to annual carbon oxidation.

Pesticide emissions shall be modelled as specific active ingredients. As default approach, the pesticides applied on the field shall be modelled as 90% emitted to the agricultural soil compartment, 9% emitted to air and 1% emitted to water.

Where the insecticide or pesticide used is not known, the input data to the modelling shall be modelled as a mix of ⅓ Glyphosate, ⅓ Macozeb and ⅓ Fosetyl-aluminium. However, for the emissions from pesticides and insecticides, the actual active ingredients shall be used.

- Data referring to contractors that supply main parts, packaging, or main auxiliaries should be requested from the contractor as specific data, as well as infrastructure, where relevant.
- The transport of main parts and components along the supply chain to a distribution point (e.g. a stockroom or warehouse) where the final delivery to the manufacturer can take place based on the actual transportation mode, distance from the supplier, and vehicle load.
- In case specific data is lacking, selected generic data may be used. If this is also lacking, proxy data may be used for:
  - Production of seeds, cuttings or plants for the cultivation.
  - Heavy metals emissions to agricultural soil, surface water and ground water.
  - Pesticide emissions.
  - Production of flavours added.

  Suggested methodological guidelines for the above-mentioned heavy metals and pesticide emissions are described in the Technical Report “Methodological Guidelines for the Life Cycle Inventory of Agricultural Products. Version 2.0, July 2014. World Food LCA Database (WFLDB)” (https://www.researchgate.net/project/World-Food-LCA-Database)
- For the electricity used in the upstream processes, electricity production impacts shall be accounted for in this priority when specific data are used in the upstream processes:

  1. Specific electricity mix as generated, or purchased, from an electricity supplier, demonstrated by a Guarantee of Origin (or similar, where reliability, traceability, and the avoidance of double-counting are ensured) as provided by the electricity supplier. If no specific mix is purchased, the residual electricity mix from the electricity supplier shall be used.[3]
  2. National residual electricity mix or residual electricity mix on the market

[3] The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total production mix of the electricity supplier.

3. National electricity production mix or electricity mix on the market

The mix of electricity used in upstream processes shall be documented in the EPD, where relevant.

- Packaging: specific data shall be used for the consumer packaging production if it is under the direct control of the organization or if the environmental impact related to the consumer packaging production is more than 10% of the total product environmental indicators. In other cases, generic data may be used. When consumer packaging shows the organization's logo, the LCA report should report the exerted/non exerted direct control on the production of consumer packaging by the organization.
- The requirement for specific data also includes actual product weights, amounts of raw materials and any other inputs used and amounts of by-products and waste etc.

4.10.2 CORE PROCESSES

The following requirements apply to the core processes:

- Specific data shall be used for the assembly of the product and for the manufacture of main parts as well as for on-site generation of steam, heat, electricity, etc., where relevant.
- For the electricity used in the core processes, electricity production impacts shall be accounted for in this priority:

1. Specific electricity mix as generated, or purchased, from an electricity supplier, demonstrated by a Guarantee of Origin (or similar, where reliability, traceability, and the avoidance of double-counting are ensured) as provided by the electricity supplier. If no specific mix is purchased, the residual electricity mix from the electricity supplier shall be used.[4]
2. National residual electricity mix or residual electricity mix on the market
3. National electricity production mix or electricity mix on the market.

The mix of electricity used in the core processes shall be documented in the EPD, where relevant.

- Transport from the final delivery point of raw materials, chemicals, main parts, and components (see above regarding upstream processes) to the manufacturing plant/place of service provision should be based on the actual transportation mode, distance from the supplier, and vehicle load, if available.
- Waste treatment processes of manufacturing waste should be based on specific data, if available.

4.10.3 DOWNSTREAM PROCESSES

The following requirements apply to the downstream processes:

- Use phase is optional. If used, data for the use stage are usually based on scenarios, but specific data should be used when available and relevant.
- The use of electricity in the region/country where the product is used (as specified in the geographical scope of the EPD) shall be accounted for in the following priority:

1. National residual electricity mix or residual mix on the market
2. National electricity production mix or electricity mix on the market

The mix of electricity used in the downstream processes shall be documented in the EPD, where relevant.

- The transport of the product to the customer should reflect the actual situation to the best extent possible. The following priority should be used:

1. Actual transportation distances and types.
2. Calculated as the average distance of a product of that product type transported by different means of transport modes. The average distance shall be calculated, for each mean of transport, as weighted average. Historic data may be used if no major change is foreseen.

[4] The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total production mix of the electricity supplier.

3. Calculated as a fixed long transport, such as 1 000 km transport by lorry or 10 000 km by airplane, according to product type.

- Scenarios for the end-of-life stage shall be technically and economically practicable and compliant with current regulations in the relevant geographical region based on the geographical scope of the EPD. Key assumptions regarding the end-of-life stage scenario shall be documented.

5 CONTENT AND FORMAT OF EPD

EPDs based on this PCR shall contain the information described in this section. Flexibility is allowed in the formatting and layout provided that the EPD still includes the prescribed information. A generic template for EPDs is available via www.environdec.com

As a general rule the EPD content:

- shall be in line with the requirements and guidelines in ISO 14020 (Environmental labels and declarations - General principles),
- shall be verifiable, accurate, relevant and not misleading, and
- shall not include rating, judgements or direct comparison with other products.

An EPD should be made with a reasonable number of pages for the intended audience and use.

5.1 EPD LANGUAGES

EPDs should be published in English, but may also be published in additional languages. If the EPD is not available in English, it shall contain an executive summary in English including the main content of the EPD. This summary is part of the EPD and thus subject to the same verification procedure.

5.2 UNITS AND QUANTITIES

The following requirements apply for units and quantities:

- The International System of Units (SI units) shall be used, e.g., kilograms (kg), Joules (J) and metres (m). Reasonable multiples of SI units may be decided in the PCR to improve readability, e.g., grams (g) or megajoules (MJ). The following exceptions apply:
  - Resources used for energy input (primary energy) should be expressed as kilowatt-hours (kWh) or megajoules (MJ), including renewable energy sources, e.g., hydropower, wind power and geothermal power.
  - Water use should be expressed in cubic metres (m^3)
  - Temperature should be expressed in degrees Celsius (°C),
  - Time should be expressed in the units most practical, e.g., seconds, minutes, hours, days or years.
- Three significant figures[5] should be adopted for all results, the number of significant digits shall be appropriate and consistent.
- The thousand separator and decimal mark in the EPD shall follow one of the following styles (a number with six significant figures shown for illustration):
  - SI style (French version): 1 234,56
  - SI style (English version): 1 234.56

  In case of potential confusion or intended use of the EPD in markets where different symbols are used, the EPD shall state what symbols are used for thousand separator and decimal mark.
- Dates and times presented in the EPD should follow the format in ISO 8601. For years, the prescribed format is YYYY-MM-DD, e.g., 2017-03-26 for March 26th, 2017.
- The result tables shall:
  - Only contain values or the letters “INA” (Indicator Not Assessed). It is not possible to specify INA for mandatory indicators. INA shall only be used for voluntary parameters that are not quantified because no data is available.[6]
  - Contain no blank cells, hyphens, less than or greater than signs or letters (except “INA”).

[5] Significant figures are those digits that carry meaning contributing to its precision. For example with two significant digits, the result of 123.45 shall be displayed as 120, and 0.12345 shall be displayed as 0.12. In scientific notation, these two examples would be displayed as $1.2*10^2$ and $1.2*10^{-2}$.

[6] This requirement does not intend to give guidance on what indicators are mandated (“shall”) or voluntary.

- Use the value 0 only for parameters that have been calculated to be zero.
- Footnotes shall be used to explain any limitation to the result value.

5.3 USE OF IMAGES IN EPD

Images used in the EPD, especially pictures featured on the cover page, may in themselves be interpreted as an environmental claim. Images such as trees, mountains, wildlife that are not related to the declared product should therefore be used with caution and in compliance with national legislation and best available practices in the markets in which the EPD is intended to be used.

5.4 EPD REPORTING FORMAT

The reporting format of the EPD shall include the following sections:

- Cover page (see Section 5.4.1)
- Programme information (see Section 5.4.2)
- Product information (see Section 5.4.3)
- Content declaration (see Section 5.4.4)
- Environmental performance (see Section 5.4.5)
- Additional environmental information (see Section 5.4.6)
- References (see Section 5.4.9)

The following information shall be included, when applicable:

- Information related to Sector EPDs (see Section 5.4.7)
- Differences versus previous versions (see Section 5.4.8)
- Executive summary in English (see Section 5.4.10)

5.4.1 COVER PAGE

The cover page shall include:

- Product name and image,
- Name and logotype of EPD owner,
- The text “Environmental Product Declaration” and/or “EPD”
- *Programme: The International EPD® System, www.environdec.com,*
- *Programme operator: EPD International AB*
- Logotype of the International EPD® System,
- EPD registration number as issued by the programme operator[7],
- *Date of publication (issue): 20XX-YY-ZZ,*
- *Date of revision: 20XX-YY-ZZ*, when applicable,
- *Date of validity; 20XX-YY-ZZ*
- A note that “*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com*.”

[7] The EPD shall not include a “registration number” if such is provided by the certification body, as this may be confused with the registration number issued by the programme operator.

- A statement of conformity with ISO 14025,

5.4.2 PROGRAMME INFORMATION

The programme information section of the EPD shall include:

- Address of programme operator: *EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden, E-mail: info@environdec.com*
- The following mandatory statement from ISO 14025: "*EPDs within the same product category but from different programmes may not be comparable*."
- A statement that the EPD owner has the sole ownership, liability and responsibility of the EPD
- Information about verification[8] and reference PCR in a table with the following format and contents:

Product category rules (PCR): *<name, registration number, version and UN CPC code(s)>*
PCR review was conducted by: *<name and organisation of the review chair, and information on how to contact the chair through the programme operator>*
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☐ EPD verification
Third party verifier: *<name, organisation and signature of the third party verifier>* *In case of certification bodies:* Accredited by: *<name of the accreditation body and accreditation number, if applicable>.* *In case of individual verifiers:* Approved by: The International EPD® System Technical Committee, supported by the Secretariat
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☐ No

5.4.3 PRODUCT INFORMATION

The product information section of the EPD shall include:

- Address and contact information to EPD owner,
- Description of the organisation. This may include information on products- or management system-related certifications (e.g. ISO 14024 Type I environmental labels, ISO 9001- and 14001-certificates and EMAS-registrations) and other relevant work the organisation wants to communicate (e.g. SA 8000, supply-chain management and social responsibility),
- Name and location of production site,
- Product identification by name, and an unambiguous identification of the product by standards, concessions or other means,
- Identification of the product according to the UN CPC scheme system. Other relevant codes for product classification may also be included, e.g.
  - Common Procurement Vocabulary (CPV),
  - United Nations Standard Products and Services Code® (UNSPSC),
  - Classification of Products by Activity (NACE/CPA) or

[8] If the EPD has been verified by an approved individual verifier who has received contractual assistance from a certification body that is not accredited, this certification body shall not be included in this table.

- Australian and New Zealand Standard Industrial Classification (ANZSIC),

- Description of the product, its application/intended use and technical functions, e.g. expected service lifetime,
- Geographical scope of the EPD, i.e., for which geographical location(s) of use and end-of-life the product's performance has been calculated,
- Functional unit or declared unit,
- Reference service life (RSL), if applicable,
- Declaration of the year(s) covered by the data used for the LCA calculation and other relevant reference years,
- Reference to the main database(s) for generic data and LCA software used, if relevant,
- System diagram of the processes included in the LCA, divided into the life cycle stages,
- Description if the EPD system boundary is "cradle-to-gate", "cradle-to-gate with options" or "cradle-to-grave",
- Information on which life cycle stages are not considered (if any), with a justification of the omission,
- Relevant websites for more information or explanatory materials.

This section may also include:

- Name and contact information of organisation carrying out the underlying LCA study,
- Additional information about the underlying LCA-based information, such as assumptions, cut-off rules, data quality and allocation.

5.4.4 CONTENT DECLARATION

The content declaration shall have the form of a list of materials and chemical substances including information on their environmental and hazardous properties. The gross weight of material shall be declared in the EPD at a minimum of 99 % of one unit of product.

Information on the hazardous properties of materials and chemical substances should follow the requirements given in the latest revision of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)[9], issued by United Nations or national or regional applications of the GHS.

As an example, the following regulations should be used for EPDs intended to be used in the European Union:

- Regulation (EC) No 1907/2006 of the European parliament and of the council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures

5.4.4.1. Information about recycled materials

Not relevant for this product category.

5.4.4.2. Information about packaging

As packaging is strongly connected with the product, the producer shall provide information about packaging in the EPD, when applicable. Packaging may be classified as:

- Distribution Packaging: packaging designed to contain one or more articles or packages, or bulk materials, for the purposes of transport, handling and/or distribution (ISO 21067-1:2016, Par. 2.2.6)
- Consumer Packaging: packaging constituting, with its content, a sales unit for the final user or consumer at the point of retail (ISO 21067-1:2016, Par. 2.2.7).

[9] The GHS document is available on www.unece.org.

Consumer packaging is generally the outcome of eco-design processes, or other activities, under direct control of the organisation. Many critical categories with strict legal requirements belong to consumer packaging category like food contact packaging and pharmaceutical packaging.

The type and function of packaging shall be reported in the EPD.

A statement of the source of the materials (pre-consumer or post-consumer) shall be presented in the EPD when the packaging is made in whole or in part by recycled materials.

5.4.5 ENVIRONMENTAL PERFORMANCE

5.4.5.1. Environmental impacts

The EPD shall declare the environmental impact indicators, per declared unit and per life cycle stage, using the default impact categories, characterisation models and factors available on www.environdec.com/indicators. The source and version of the characterisation models and the factors used shall be reported in the EPD. Alternative regional life cycle impact assessment methods and characterisation factors are allowed to be calculated and displayed in addition to the default list. If so, the EPD shall contain an explanation of the difference between the different sets of indicators, as they may appear to the reader to display duplicate information.

5.4.5.2. Use of resources

The EPD shall declare the indicators for resource use listed at www.environdec.com/indicators per declared unit, per life-cycle stage and in aggregated form.

5.4.5.3. Waste production and output flows

Waste generated along the whole life cycle production chains shall be treated following the technical specifications described in the GPI. The EPD shall declare the indicators for waste production and output flows as listed at www.environdec.com/indicators per declared, per life-cycle stage and in aggregated form.

5.4.5.4. Other environmental indicators

The following indicators shall be reported in the EPD, divided into the two or three modules (if applicable):

- **By-products**, in kg
- **Land use**: m^2a (in case of land occupation)
  - Volume and/or surface used of specified land category, according to Corine Land Cover Classes level one at a minimum - 5 classes
  - Number of years that the areas are occupied since the orchard planting/plant building

The following issues should be addressed.

- **Human toxicity**. This category concerns effects of toxic substances on the human environment. Characterisation factors, Human Toxicity Potentials (HTP), are calculated with USES-LCA, describing fate, exposure and effects of toxic substances for an infinite time horizon. For each toxic substance HTP's are expressed as 1,4-dichlorobenzene equivalents/ kg emission.
- **Freshwater aquatic eco-toxicity**. This category indicator refers to the impact on freshwater ecosystems, as a result of emissions of toxic substances to air, water and soil. Eco-toxicity Potential (FAETP) is calculated with USES-LCA, describing fate, exposure and effects of toxic substances. The time horizon is infinite. Characterisation factors are expressed as 1,4-dichlorobenzene equivalents/kg emission.
- **Ecological footprint**. This category indicator is a complex indicator that measures the biologically productive area of the sea and of land necessary to regenerate the resources consumed by a human population and to absorb the waste produced from the consumption of fossil and nuclear fuels. It is expressed in soil use over time (m2a).

5.4.6 ADDITIONAL INFORMATION

It is recommended to add information enabling the possibility to make comparisons with vegetable oils of origin other than olive trees, as well as different agricultural / manufacturing practices preferably based on the concept of declared /functional unit, which is useful for scaling the environmental impacts of activities, inputs or services.

Also, a more detailed description of an organisation's overall environmental work such as:

- the existence of a quality or environmental management system or any other type of organised environmental activity,
- the aesthetic contribution of olive groves to natural environment,
- the contribution of olive groves to biodiversity,
- any activity related to supply chain management, social responsibility (SR) etc., and
- information on where interested parties may find more details about the organisation's environmental work.

5.4.7 INFORMATION RELATED TO SECTOR EPDS

For sector EPDs, the following information shall also be included:

- a list of the contributing manufacturers that the Sector EPD covers,
- a description of how the selection of the sites/products has been done and how the average has been determined, and
- a statement that the document covers average values for an entire or partial product category (specifying the percentage of representativeness) and, hence, the declared product is an average that is not available for purchase on the market.

5.4.8 DIFFERENCES VERSUS PREVIOUS VERSIONS

For EPDs that have been updated, the following information shall also be included:

- a description of the differences versus previously published versions, e.g. a description of the percentage change in results and the main reason for the change
- a revision date on the cover page

5.4.9 REFERENCES

A section listing references shall be included, including references to e.g. the General Programme Instructions (including version number), standards and PCR (registration number, name and version).

5.4.10 EXECUTIVE SUMMARY IN ENGLISH

For EPDs published in another language than English, an executive summary in English shall be included.

The executive summary should contain relevant summarised information related to the programme, product, environmental performance, additional information, information related to sector EPDs, references and differences versus previous versions.

6 GLOSSARY

CPC	Central product classification
CEN	European Committee for Standardization
EPD	Environmental product declaration
ISO	International Organization for Standardization
kg	kilogram
LCA	Life cycle assessment
PCR	Product Category Rules
PEF	Product Environmental Footprint
SI	The International System of Units
UN	United Nations

Chemical molecules:

NH_3	Ammonia
NMVOC	Non-Methane Volatile Organic Compounds
N_2O	Nitrous oxide
CO_2	Carbon dioxide
NO_3	Nitrate
PO_4, PO_4^{3-}	Phosphate
SO_2	Sulphur dioxide

7 REFERENCES

CEN (2013), EN 15804:2012+A1:2013, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

EPD International (2017) General Programme Instructions for the International EPD® System. Version 3.0, dated 2017-12-11. www.environdec.com

Guidance for Product Category Rule Development (2013), Ingwersen, W., Subramanian, V., editors. Product Category Rule Guidance Development Initiative. Version 1.0. http://www.pcrguidance.org

ISO (2000), ISO 14020:2000, Environmental labels and declarations – General principles

ISO (2004), ISO 8601:2004 Data elements and interchange formats – Information interchange – Representation of dates and times

ISO (2006a), ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures

ISO (2006b), ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework

ISO (2006c), ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines

ISO (2013), ISO/TS 14067:2013, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication

ISO (2014), ISO 14046:2014, Environmental management – Water footprint – Principles, requirements and guidelines

ISO (2017), ISO 21930:2017, Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services

ISO (2016), ISO 21067-1:2016, Packaging -- Vocabulary General terms

Draft Product Environmental Footprint Category Rules (PEFCR) for olive oils (version v0.6.3.4 of 31.05.2018)

8 VERSION HISTORY OF PCR

VERSION 1.0, 2010-04-27

First publication.

VERSION 2.0, 2014-04-01

- Latest PCR template used
- Updated to align with General Programme Instructions, version 2.0, specifically:
  - Introduction
  - Packaging production moved from core to upstream processes
  - Priority list of electricity production impacts specified
  - Resource and waste indicators updated
  - Validity of the EPD
- Update to declared unit and specification of product
- Less requirements on the content declaration of chemical substances
- Fewer significant digits required
- Removal of requirement of some potential environmental impact categories
- Requirement that the detailed LCI is available upon request.
- Editorial changes

VERSION 2.01, 2014-04-10

- Corrected list of authors and contributors

VERSION 2.1, 2017-06-13

- Extended validity with one year. The PCR is expected to be updated in 2018 based on:
  - The results of the European Commission pilot phase PEFCR for olive oil
  - The new version of the General Programme Instructions, currently in preparation
- Minor editorial changes

VERSION 3.0, 2020-03-31

- Compliance with the General Programme Instructions, version 3.01, especially:
  - Impact indicators have been updated
  - Validity of the EPD have been modified
- Better specification of the allocation rules
- Improved the calculation of emissions from fertilizers application
- Indication of suggested databases for generic data
- Minor editorial changes

VERSION 3.0.1, 2022-04-13

Editorial changes in Sections 5.4.5.1 to 5.4.5.3, to clarify the indicator list at www.environdec.com applies also for the indicators of resource use, waste production and other output flows.

VERSION 3.0.2, 2024-05-21

Updated with prolonged validity with 1 year, until 2025-03-31, due to the ongoing updating process of a PCR that will replace this PCR (the main PCR on food and beverage products), and which probably will be complemented with a complementary PCR (c-PCR) on virgin olive oil and its fractions, and potentially other oils. See www.envriondec.com for the latest information on ongoing PCR development processes.