BASIC CHEMICALS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 341, 342, 343, 345

2021:03
VERSION 2.0.0

VALID UNTIL 20XX-YY-ZZ *(TO BE ADDED BY THE SECRETARIAT)*

NOTE: THIS DOCUMENT IS A PCR TEMPLATE TO BE USED IN PCR DEVELOPMENT. IT IS NOT A PCR.

DRAFT FOR OPEN CONSULTATION

NAME OF PRODUCT CATEGORY

PRODUCT CATEGORY CLASSIFICATION: UN CPC 341, 342, 343, 345

INTRODUCTION TO OPEN CONSULTATION

This draft PCR document is available for open consultation from 2026-11-06 until 2027-01-08. Feel free to forward the draft to any other stakeholder you might think is relevant, including colleagues and other organisations.

We are interested in comments from stakeholders on:

- General
  - Alignment with PCRs available in other programmes for type III environmental declarations, industry-specific LCA guidelines or similar.
- Scope of PCR
  - Product category definition and description
  - Classification of product category using CPC codes
- Goal and scope, life cycle inventory and life cycle impact assessment
  - Functional unit/declared unit
  - System boundary
  - Allocation rules
  - Data quality requirements
  - Recommended databases for generic data
  - Impact categories and impact assessment methodology
- Additional information

Comments shall be sent directly to the PCR Moderator (contact details available in Section 1). There is a template for comments on www.environdec.com that may be used.

For questions about the PCR, please contact the PCR moderator. For general questions about the International EPD System, EPD or PCR development, please contact the Secretariat via https://www.environdec.com/support.

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NAME OF PRODUCT CATEGORY

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NAME OF PRODUCT CATEGORY

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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 Environmental Product Declarations (EPD)[1] according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards, such as EN 15804 and ISO 21930 for construction products.[2] EPDs are voluntary documents for a company or an industry association to present transparent, consistent, and verifiable information about the environmental performance of their products (goods or services).

The General Programme Instructions (GPI), publicly available on www.environdec.com, includes the rules for the overall administration and operation of the programme and the basic rules for developing EPDs registered in the programme. A PCR complements the GPI and the normative standards by providing specific rules, and guidelines for developing an EPD for one or more specific product categories (see **Error! Reference source not found.**), thereby enabling the generation of consistent EPDs within a product category. A PCR should not repeat the rules and guidelines of the GPI, but include additions, specifications and deviations to the rules set in the GPI. As such, a PCR shall be used together with the GPI.

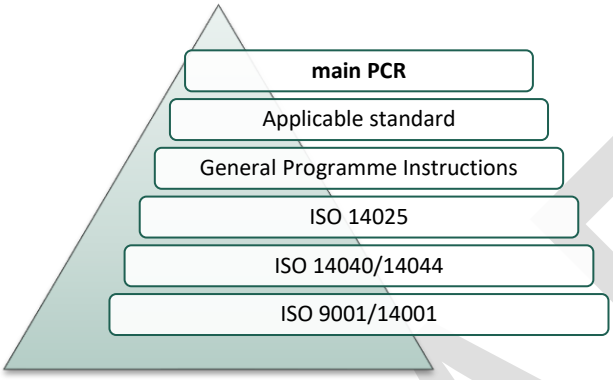


Figure 1 This PCR in relation to the hierarchy of standards and other documents.

This PCR is a main PCR that may be complemented with one or several complementary PCR (c-PCR). If there is an applicable and valid c-PCR, it shall be used in case it has been valid for at least 90 days when the EPD is verified[3]. If it has been valid for less than 90 days, it is optional to use the c-PCR. The valid c-PCRs can be found on www.environdec.com.

The present PCR uses the following terminology:

- The term “shall” is used to indicate what is obligatory, i.e., a requirement.
- The term “should” is used to indicate a recommendation. Any deviation from a re commendation shall be justified in the EPD development process.
- The terms “may” or “can” are used to indicate an option that is permissible.

For definitions of other terms used in the document, see the GPI and normative standards.

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

The programme operator maintains the copyright of the PCR to ensure that it is possible to publish, update, and make it 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] Termed type III environmental declarations in ISO 14025.

[2] When standards are referred to in this document, the version listed in Section 8 is intended unless otherwise stated.

[3] This does not apply when the EPD is re-verified during its validity, unless the validity period is extended.

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2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Basic chemicals
Registration number and version:	*2021:03, version 2.0.0*
Programme:	EPD INTERNATIONAL EPD SYSTEM
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: support@environdec.com
PCR Moderator:	Emre Can Çorumlu (ClimatePrime), ecorumlu@climateprime.com.tr
PCR Committee:	ClimatePrime, We Soda
Publication date:	*To be added by the Secretariat* See Section 9 for a version history of the PCR.
Valid until:	*To be added by the Secretariat* The validity may change. See www.environdec.com for the latest version of the PCR and the latest information on its validity and transition periods between versions.
Development and updates:	The PCR has been developed following ISO 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI. The PCR is valid for a pre-determined time period 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 on if and how to proceed with updating the PCR and renewing its validity. A PCR may be updated before it expires, based on changes in normative standards or provided significant and well-justified proposals for changes or amendments are presented. When there has been an update of the PCR, the new version should be used to develop EPDs. For small updates (change of third-digit version number), the previous version is normally immediately removed from the PCR library on www.environdec.com and there is no transition period. For medium updates (change of second-digit version number), the previous version of the PCR is valid in parallel during a transition period of at least 90 days, but not exceeding its previously set validity period. For large updates (change of first-digit version number), the previous version is valid in parallel during a transition period of at least 180 days, but not exceeding its previously set validity period. Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity.

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Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.1, based on ISO 14025 and ISO 14040/14044.[4]
PCR language(s):	At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available on www.environdec.com. 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 Basic Chemicals and the declaration of this performance by an EPD. The product category corresponds to UN CPC UN CPC Group 341, UN CPC Group 342 (except subclass 3429), UN CPC Group 343, UN CPC Group 345 (except subclass 3451).

- Group: 341 - Basic organic chemicals Class 3411 - Hydrocarbons and their halogenated, sulphonated, nitrated or nitrosated derivatives
- Class 3412 - Industrial monocarboxylic fatty acids; acid oils from refining
- Class 3413 - Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives, industrial fatty alcohols
- Class 3414 - Carboxylic acids and their anhydrides, halides, peroxides and peroxyacids and their halogenated, sulphonated, nitrated or nitrosated derivatives, except salicylic acid and its salts and esters and their salts
- Class 3415 - Amine-function compounds; oxygen-function amino-compounds, except lysine and its esters and salts thereof and glutamic acid and its salts; ureines and their derivatives and salts thereof; carboxyimide-function compounds and imine-compounds; nitrile-function compounds; diazo-, azo- or azoxy-compounds; organic derivatives of hydrazine or of hydroxylamine; compounds with other nitrogen function
- Class 3416 - Organo-sulphur compounds and other organo-inorganic compounds; heterocyclic compounds n.e.c.; nucleic acids and their salts
- Class 3417 - Ethers, alcohol peroxides, ether peroxides, epoxides, acetals and hemiacetals, and their halogenated, sulphonated, nitrated or nitrosated derivatives; aldehyde-function compounds; ketone-function compounds and quinone-function compounds; enzymes; prepared enzymes n.e.c.; organic compounds n.e.c.
- Class 3418 - Phosphoric esters and their salts or esters of other inorganic acids (excluding esters of hydrogen halides) and their salts; and their halogenated, sulphonated, nitrated or nitrosated derivatives
-
- Group: 342 - Basic inorganic chemicals Class 3421 - Hydrogen, nitrogen, oxygen, carbon dioxide and rare gases; inorganic oxygen compounds of non-metals n.e.c.
- Class 3422 - Zinc oxide; zinc peroxide; chromium oxides and hydroxides; manganese oxides; iron oxides and hydroxides; earth colours; cobalt oxides and hydroxides; titanium oxides; lead oxides; red lead and orange lead; inorganic bases n.e.c.; metal oxides, hydroxides and peroxides n.e.c., except of mercury
- Class 3423 - Chemical elements n.e.c.; inorganic acids; inorganic oxygen compounds of boron, silicon and carbon; halogen or sulphur compounds of non-metals; sodium hydroxide; hydroxide and peroxide of magnesium; oxides, hydroxides and peroxides of strontium or barium; aluminium hydroxide; hydrozine and hydroxylamine and their inorganic salts
- Class 3424 - Phosphates of triammonium; salts and peroxysalts of inorganic acids and metals n.e.c.
- Class 3425 - Salts of oxometallic or peroxometallic acids; colloidal precious metals and compounds thereof; inorganic and organic compounds of mercury; other inorganic chemicals n.e.c.; compressed air; amalgams
- Class 3426 - Isotopes n.e.c. and compounds thereof (including heavy water)
- Class 3427 - Cyanides, cyanide oxides and complex cyanides; fulminates, cyanates and thiocyanates; silicates; borates; perborates
- Class 3428 - Hydrogen peroxide; phosphides; carbides; hydrides, nitrides, azides, silicides and borides
-
- Group: 343 - Tanning or dyeing extracts; tannins and their derivatives; colouring matter n.e.c. Class 3431 - Synthetic organic colouring matter and preparations based thereon; synthetic organic products of a kind used as fluorescent brightening agents or as luminophores; colour lakes and preparations based thereon

[4] Some rules influencing EPD development are independent of the GPI version referred to in the PCR. For example, the latest rules on EPD verification procedures in the GPI shall be followed within 90 days of its publication. See Section 5.1 in the GPI for a description of the four categories of rules and when they shall be followed.

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- Class 3432 - Tanning extracts of vegetable origin; tannins and their salts, ethers, esters and other derivatives; colouring matter of vegetable or animal origin, except animal black; preparations based on colouring matter of vegetable or animal origin
- Class 3433 - Synthetic organic tanning substances; inorganic tanning substances; tanning preparations; enzymatic preparations for pre-tanning
- Class 3434 - Colouring matter n.e.c.; inorganic products of a kind used as luminophores
-
- - Group: 345 - Miscellaneous basic chemical products (except Class 3451 Wood charcoal) Class 3452 - Sulphur, except sublimed sulphur, precipitated sulphur and colloidal sulphur
- Class 3453 - Roasted iron pyrites
- Class 3454 - Oils and other products of the distillation of high temperature coal tar, and similar products; pitch and pitch coke, obtained from mineral tars
- Class 3455 - Animal or vegetable fats and oils and their fractions, chemically modified, except those hydrogenated, inter-esterified, re-esterified or elaidinized; inedible mixtures or preparations of animal or vegetable fats or oils
- Class 3456 - Synthetic or reconstructed precious or semiprecious stones, unworked
- Class 3457 - Glycerol

Other classes and their subclasses are not included in this PCR.
The product may be a pure basic chemical or a mixture of several of the basic chemicals listed above. The product may also be basic chemical(s) diluted in a solvent, e.g. water. Basic chemicals produced from renewable as well as non-renewable feedstocks are included.

The product group and CPC code shall be specified in the EPD. Additional information regarding CPC codes can be seen at https://unstats.un.org/unsd/classifications/Econ/cpc.

2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally. The data for the core module shall be representative for the site/region where the respective process is taking place.

2.2.3 EPD VALIDITY

An EPD becomes valid as of its version date (see Section 8.4.5 of the GPI). When an EPD is originally published, the validity period is normally five years starting from the version date or until the EPD has been de-registered from the International EPD System. Shorter validity periods are also accepted, for example if decided by the EPD owner.

For rules on when an EPD shall be updated and re-verified during its validity, see Section 6.8.1 of the GPI. For validity periods in case of updates of EPDs, see Section 6.8 of the GPI.

The version date and the period of validity shall be stated in the EPD.

Publication of a new version of the PCR or the GPI does not affect the validity of already published EPDs.

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3 REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the PCR development process described in the GPI of the International EPD System, including open consultation and review.

3.1 OPEN CONSULTATION

3.1.1 VERSION 1.0.0

Version 1.0.0 of this PCR was available for open consultation from 2020-10-29 until 2020-12-28, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

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. The following stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com:

3.2 PCR REVIEW

3.2.1 VERSION 1.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	Lars-Gunnar Lindfors
Review dates:	2021-03-09 until 2021-04-13

3.2.2 VERSION 2.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	*To be added by the Secretariat*
Review dates:	*To be added by the Secretariat*

3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs and other internationally standardised methods that could potentially act as PCRs were considered to avoid unnecessary overlaps in scope and to ensure harmonisation with established methods of relevance for the product category. The existence of such documents was checked among the following EPD programmes and international standardisation bodies:

- International EPD System. www.environdec.com.

Table 1 lists the identified PCRs and other standardised methods.

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Table 1. Existing PCRs and other internationally standardised methods that were considered to avoid overlap in scope and to ensure harmonisation with established methods.

Name of PCR/standard, incl. registration number	Programme/standardisation body	Version number/date of publication	Scope
BASIC ORGANIC CHEMICALS	The International EPD System	2011:17	UN CPC 341; Expired
BASIC INORGANIC CHEMICALS	The International EPD System	2011:18	UN CPC 342; Expired – Prolonged;
TANNING CHEMICALS	The International EPD System	2015:09	UN CPC 343; Expired
BASIC CHEMICALS	The International EPD System	2021:03	UN CPC Group 341, UN CPC Group 342 (except subclass 3429), UN CPC Group 343, UN CPC Group 345 (except subclass 3451); Expired

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the product category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products of the same product category, and thereby it supports comparability of products within a product category.

3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

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

- WBSCD - Life Cycle Metrics for Chemical Products A guideline by the chemical sector to assess and report on the environmental footprint of products, based on life cycle assessment
- LCA of Chemicals and Chemical Products Fantke, Peter; Ernstoff, Alexi. Published in: Life Cycle Assessment: Theory and Practice
- Burgess, D.J.Brennan - Application of life cycle assessment to chemical processes - Chemical Engineering Science - Volume 56, Issue 8, April 2001, Pages 2589-2604
- Springer - 2020 - Life Cycle Assessment in the Chemical Product Chain Challenges, Methodological Approaches and Applications - Editors: Maranghi, Simone, Brondi, Carlo
- Walter Klöpffer - Life Cycle Assessment as Part of Sustainability Assessment for Chemicals - Environmental Science and Pollution Research volume 12, pages173–177(2005)
- Johanna Kleinekorte, Lorenz Fleitmann, Marvin Bachmann, Arne Kätelhön, Ana Barbosa-Póvoa, Niklas von der Assen, and André Bardow - Life Cycle Assessment for the Design of Chemical Processes,Products, and Supply Chains - - Annual Review of Chemical and Biomolecular Engineering
- A. Santos, A. Barbosa-Po´voa, A. Carvalho – Current Opinion in Chemical Engineering 2019

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4 LCA METHOD

This section provides rules for the LCA method used to develop an EPD for the product category as defined in Section 2.2.1. The basic rules of the LCA method are set in Annex A of the GPI, and this section only includes additions, specifications and deviations to the rules set in the GPI. Guidance and examples of applying the LCA method are also available on www.environdec.com/methodology.

4.1 MODELLING APPROACH

See Section A.1 of the GPI.

4.2 DECLARED/FUNCTIONAL UNIT

The declared unit shall be 1 (one) kg of chemical product plus its packaging ready for delivery (the weight of the packaging shall not be included in the 1 kg declared unit). The declared unit shall be declared in the EPD.

The weight of the packaging of the studied product shall be reported separately. The environmental impacts in Section 5.4.5.1, use of resources in Section 5.4.5.2 and waste production and output flows in Section 5.4.5.2 of the product packaging shall be reported separately per life-cycle stages from those of the chemical product.

The reference flow in the LCA shall be defined at the point where the product arrives at the customer gate, i.e. any losses occurring before then must be taken into account.

This PCR uses a declared unit instead of a functional unit. This is because the relevant functional aspects are not known or are not possible to capture in one or a few predefined functional units. All relevant functional aspects shall, however, be considered when comparing EPDs based on this PCR.

4.2.1 REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

4.2.2 PRODUCT LIFESPAN

Not applicable for this product category.

4.2.3 TECHNICAL SPECIFICATION

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

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

End-of-life treatment of the chemical product may be excluded if all of the following criteria are fulfilled▪:

- the product is physically integrated with other products in subsequent life-cycle process so they cannot be physically separated from them at end of life,
- the product or material is no longer identifiable at end-of-life as a result of a physical or chemical transformation process,
- the product or material does not contain biogenic carbon, and
- the EPD shall not be used for business-to-consumer communication.

Exclusion of end-of-life treatment is only applicable for the chemical product itself, not for the product packaging.

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4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

Due to different data quality rules and the presentation of results, the product life cycle shall be divided into the following life-cycle stages and information modules:

- 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 and in aggregated form. 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.

4.3.1.1. Upstream processes

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

- Extraction of non-renewable resources (e.g. operation of oil platforms and pipelines)
- Growing and harvesting of renewable resources (e.g. agricultural planting)
- Refining, transfer, and storage of extracted or harvested resources into feedstock for production
- The production processes of energy wares used in the extraction and refinement
- Production of electricity and fuels used in the upstream module
- Manufacturing of primary and secondary packaging
- Treatment of waste generated by the upstream module

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 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:

- External transportation to the core processes
- Production processes
- Recycling of waste or secondary materials for use in production
- Storage
- Maintenance (e.g. of the machines)
- Waste treatment of waste generated during manufacturing
- Production of electricity and fuels used in the core 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. All relevant unit processes shall be included in accordance with the rules in Section 4.3.

- Transportation of the packaged product from preparation to an average retailer/distribution platform (see Section 4.10.3 for downstream distance priority)
- Use stage
- End-of-life treatment of the chemical product

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4.3.1.1 Excluded processes

See Section A.3.1.1 of the GPI.

4.3.1.2 Infrastructure and capital goods

See Section A.3.1.2 of the GPI.

4.3.2 OTHER BOUNDARY SETTING RULES

See Section A.3.2 of the GPI for rules on setting boundaries to nature as well as geographical and temporal boundaries. See Section A.4 of the GPI and Section 4.6 for rules on setting boundaries to other product systems.

4.4 PROCESS FLOW DIAGRAM

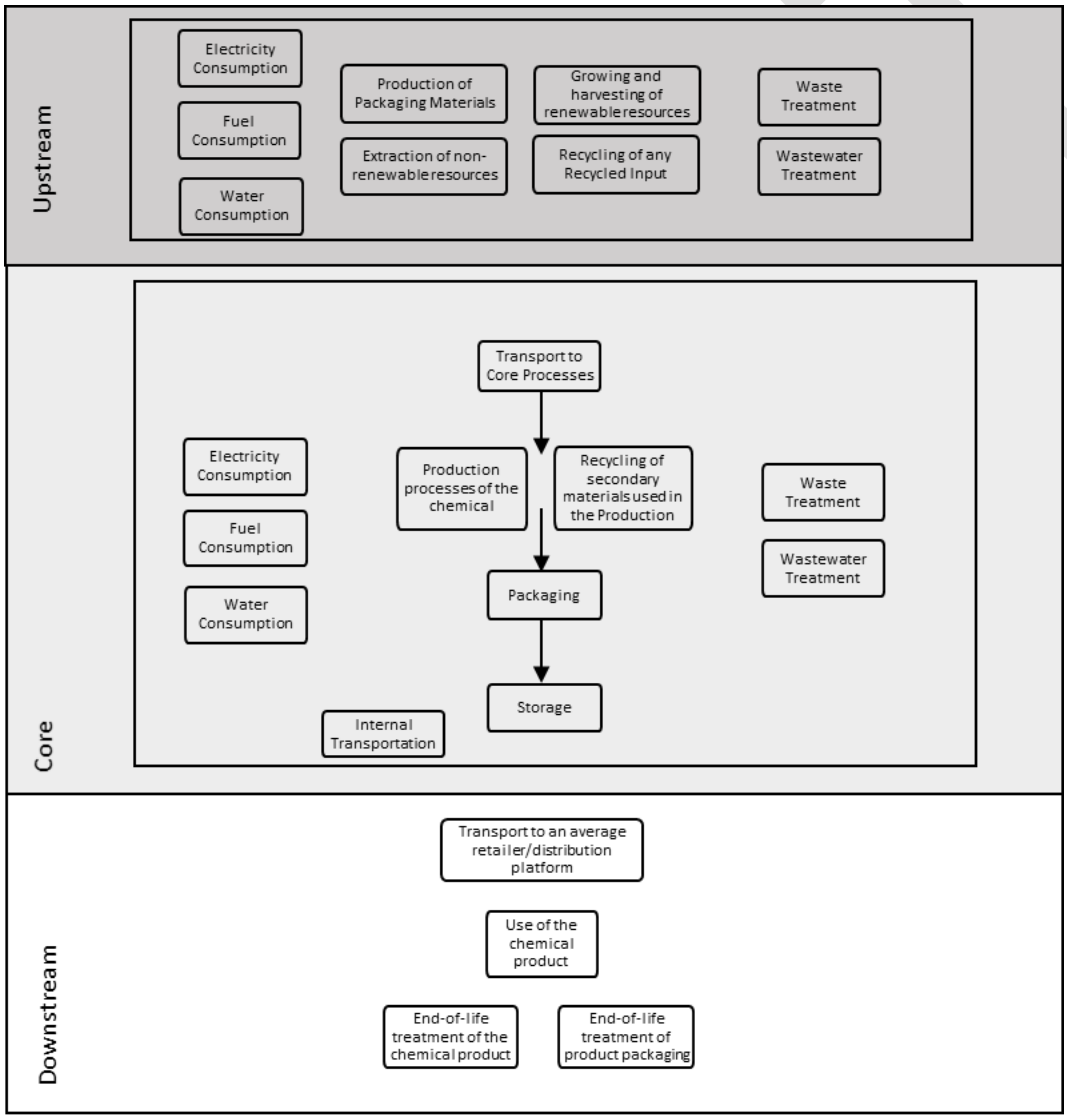


Figure 1. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

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4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

4.6 ALLOCATION RULES

See Section A.4 of the GPI.

4.6.1 ALLOCATION OF CO-PRODUCTS

See Section A.4.1 of the GPI.

For key processes in the product system, Table 2**Error! Reference source not found.** provides specifications of the allocation method to use.

Table 2. Allocation method for key processes in the product system.

Process	Main product and co-products	Allocation method
Combined heat and power (all technologies)	Electricity, heat, cooling	Alternative Generation Method. Consult PCR 2007:08 Electricity, steam and district heating/cooling.

4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

Additionally, recycled materials from a scrapyard where the origin is unknown (e.g., data/statistics on shares of post- and pre-consumer materials are missing for the specific scrapyard or the country of its location), shall be assumed to be waste and allocated accordingly, unless default data provided on www.environdec.com/methodology says otherwise. For consistency, scrap sent to a scrapyard shall be assumed to be waste and allocated accordingly, unless default data provided on www.environdec.com/methodology says otherwise.

4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

See Section 4.8 for further rules related to data and data quality per life-cycle stage and module D.

4.7.1 DATA CATEGORIES

See Section A.5.1 of the GPI.

4.7.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

See Section A.5.2 of the GPI.

Additionally, the reference year of the primary data shall not be more than five years old and shall be representative for the validity period of the EPD (if not, the EPD shall be updated, see Section 2.2.4). The reference year, which does not need to be a calendar year, is the latest year in which the data provider confirmed the data to be representative/valid, i.e., the end year for the most recently set validity period.[5] This means that primary LCI data can have been collected more than five years ago, but the representativeness/validity shall have been reassessed and confirmed by the data provider (the manufacturer/service provider) within the past five years.[6] In such reassessments, it may be that data is

[5] This definition of "reference year" is a specification and merge of the definitions in EN 15804, EN 15941, ISO 21930 and in the ILCD format.

[6] This reassessment can, for example, be done based on collected metadata, such as information on the type of machinery being used in a manufacturing process. So it can be that some data (LCI and/or meta data) have been collected within five years, while some data are older than five years but has been confirmed to still be representative based on the more recently collected data. An

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confirmed to be conservative compared to fully representative data, for example because it is known that the manufacturing process has improved (e.g., less material losses or lower energy use) but collected data from the past five years is missing. In such cases, the reference year can still be updated, and the data can still qualify as primary data. If this is done, it shall be described and justified in the LCA report.

4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

4.7.4 DATA QUALITY ASSESSMENT AND DECLARATION

See Section A.5.4 of the GPI.

4.7.5 EXAMPLES OF DATABASES FOR SECONDARY DATA

Table 3 lists examples of databases and datasets to be used for secondary data. Note that a data quality assessment shall be performed also for data listed in the table, and that other data that fulfil the data quality requirements may also be used.

Table 3. Examples of databases and datasets to use for secondary data.

Process	**Geographical scope**	**Database**
Upstream – Core - Downstream	Global	Ecoinvent

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

For specific LCA rules per life-cycle stage, see Section 4.9.

4.8.1 MASS BALANCE

See Section A.6.1 of the GPI.

4.8.2 ELECTRICITY MODELLING

See Section A.6.2 of the GPI.

The following requirement for contractual instruments in the GPI may not be possible to comply with in all markets for contractual instruments: “the contractual instrument shall … be valid for at least the upcoming six months from the publication of the EPD.” Therefore, it is replaced with the following: “is produced as close as possible to the period to which the contractual instrument is applied and comprises a corresponding timespan.”

example: the amount of electricity a machinery use and the emissions generated was measured seven years ago, but within the past five years the producer has confirmed the same machine is still in use and has provided updated data on the type of electricity used to run the machine.

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4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

See Section A.7 of the GPI.

Module D is not applicable to this PCR.

4.9.1 PRODUCT STAGE, A1-A3

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.

▪ 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.

▪ 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 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.

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

4.9.2 DISTRIBUTION AND INSTALLATION STAGE, MODULES A4-A5

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of the construction/installation stage.

4.9.3 USE STAGE, MODULES B1-B7

Data for the use stage are usually based on scenarios, but specific data should be used when available and relevant. It is not mandatory to declare any quantitative information about the use and end-of-life phases5 of the chemical product. However, a short description of the main applications and associated disposal scenarios should be declared together with a qualitative description of key environmental aspects associated with the use and end-of-life fate of all components of the product. The carbon content of the product and the packaging can be used to calculate climate impact at end of life.

▪ Data on the pollutant emissions from the use stage should be based on documented tests, verified studies in conjunction with average or typical product use, or recommendations concerning suitable product use. Whenever applicable, test methods shall

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be internationally recognised.

▪ 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 shall be described in the LCA and in the EPD, which 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.

3. Calculated as a fixed long transport of 1 000 km road transportation by lorry.

4.9.4 DOWNSTREAM PROCESSES

See section A.7.3 and A.7.4.

Furthermore, the following rules apply when modelling the downstream processes:

Data for the use stage are usually based on scenarios, but specific data should be used when available and relevant. It is not mandatory to declare any quantitative information about the use and end-of-life phases[5] of the chemical product. However, a short description of the main applications and associated disposal scenarios should be declared together with a qualitative description of key environmental aspects associated with the use and end-of-life fate of all components of the product. The carbon content of the product and the packaging can be used to calculate climate impact at end of life.

The transport of the product to the customer shall be described in the LCA and in the EPD, which should reflect the actual situation to the best extent possible. The following priority should be used:

Actual transportation distances and types.

Calculated as the average distance of a product of that product type transported by different means of transport modes.

Calculated as a fixed long transport of 1 000 km road transportation by lorry.

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

The EPD may contain other environmental indicators to include for the products covered in the EPD from the inventory or impact assessment. Such indicators should be based on international standards or similar methodologies developed in a transparent procedure. References to the chosen indictors and methodologies shall be reported.

The following potential environmental impacts may be calculated and reported in the EPD:

▪ Toxic emissions, Freshwater ecotoxicity (expressed as PAF.m3.day (USEtox 2 (recommended + interim) may be used)

▪ Human Toxicity cancer and non-cancer (expressed as cases (USEtox 2 (recommended + interim) may be used)

▪ Any other important environmental indicators related to the chemical product may be listed in the EPD. Examples of additional indicators can be found in the “Life Cycle Metrics for Chemical Products” (WBCSD Chemicals, 2014).

As for the mandatory indicators, the EPD shall declare the results of the other environmental indicators per declared unit, per life-cycle stage and in aggregated form, and the results of the packaging shall be reported separately per life-cycle stage from those of the chemical.

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4.11 SPECIFIC RULES PER EPD TYPE

4.11.1 MULTIPLE PRODUCTS FROM THE SAME COMPANY

See Section A.9.1 of the GPI.

4.11.2 SECTOR EPD

See Section A.9.2 of the GPI.

4.11.3 EPD OWNED BY A TRADER

See Section A.9.3 of the GPI.

4.11.4 EPD OF PRODUCT NOT YET ON THE MARKET

See Section A.9.4 of the GPI.

4.11.5 EPD OF PRODUCT RECENTLY ON THE MARKET

See Section A.9.5 of the GPI.

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5 CONTENT OF LCA REPORT

Data for verification shall be presented in the form of an LCA report – a systematic and comprehensive summary of the project documentation that supports the verification of an EPD. The LCA report is not part of the public communication.

See Section 8.3.1 of the GPI for rules on the content of the LCA report.

Note that there may be rules on the content of the LCA report elsewhere in the GPI or in this PCR.

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6 CONTENT AND FORMAT OF EPD

See Section 7 of the GPI.

6.1 EPD LANGUAGES

See Section 7.1 of the GPI.

6.2 UNITS AND QUANTITIES

See Section 7.2 of the GPI.

6.3 USE OF IMAGES IN EPD

See Section 7.3 of the GPI.

6.4 SECTIONS OF THE EPD

See Section 7.4 of the GPI.

6.4.1 COVER PAGE

See Section 7.4.1 of the GPI.

6.4.2 GENERAL INFORMATION

See Section 7.4.2 of the GPI.

6.4.3 INFORMATION ABOUT EPD OWNER

See Section 7.4.3 of the GPI.

6.4.4 PRODUCT INFORMATION

See Section 7.4.4 of the GPI.

6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

Additionally, 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/volume of material shall be declared in the EPD at a minimum of 99 % of one product unit[10]. The product components shall be declared by IUPAC[11] names, CAS numbers and GHS phrases[12] (if applicable)[13].An exception to the 99% rule is that all materials/substances hazardous to health and the environment, being carcinogenic, mutagenic or toxic to reproduction (CMR), allergic, PBT[14] or vPvB[15] shall be listed as such. Even if a substance does not have a classification but is suspected to fall under any of these categories, it shall be listed as well.
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)[16], 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)

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6.4.6 LCA INFORMATION

See Section 7.4.6 of the GPI.

6.4.7 ENVIRONMENTAL PERFORMANCE

See Section 7.4.7 of the GPI.

The EPD shall declare the environmental performance indicators listed or referred to in Section 4.10, per declared unit and per life-cycle stage.

6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

Additionally, An EPD may contain additional information not derived from the LCA-based calculations. The part of the EPD describing additional information may include various issues. Examples of these are:

- _Toxic emissions may be reported in the EPD considering air, soil and water. Attention shall be paid to all materials/substances hazardous to health and the environment, being allergenic, carcinogenic, mutagenic or toxic to reproduction.
- _By-product generated by the production process.
- _If biotic matter is used as feedstock (i.e. ends up in the chemical), information regarding the typical crop shall be included. If this information is not known, this shall be stated and explained in the EPD. The typical location of the growing of the crop may also be provided in the EPD.
- _Material Safety Data Sheet (MSDS) information may be used as a basis for risk communication.

6.4.9 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

See Section 7.4.9 of the GPI.

6.4.10 INFORMATION RELATED TO SECTOR EPDS

See Section 7.4.10 of the GPI.

6.4.11 VERSION HISTORY

See Section 7.4.11 of the GPI.

6.4.12 ABBREVIATIONS

See Section 7.4.12 of the GPI.

6.4.13 REFERENCES

See Section 7.4.13 of the GPI.

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7 LIST OF ABBREVIATIONS

AP Acidification potential

B2B Business to business

CEN European Committee for Standardization

CFC Chlorofluorocarbons

CPC Central product classification

EN European norms

EPD Environmental product declaration

GPI General programme instructions

ISO International Organization for Standardization

LCA Life cycle assessment

LCI Life cycle inventory

NMVOC Non-methane volatile organic compounds

PAF Potentially affected fraction

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

SI The International System of Units

UN United Nations

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8 REFERENCES

CEN (2021) EN 15804:2012+A2:2019/AC:2021, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

CEN, 2024. EN 15941:2024, Sustainability of construction works – Data quality for environmental assessment of products and construction work – Selection and use of data.

EPD International (2024) General Programme Instructions for the International EPD System. Version 5.0.1, dated 2025-02-27. Available on www.environdec.com.

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 (2015a) ISO 14001:2015, Environmental management systems – Requirements with guidance for use.

ISO (2015b) ISO 9001:2015, Quality management systems – Requirements.

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

ISO (2018b) ISO/TS 14067:2018, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication.

PCR (2011:17), Basic organic chemicals v 2.1, The International EPD System, https://www.environdec.com/PCR/
PCR (2011:18), Basic inorganic chemicals n.e.c. v 2.12, The International EPD System, https://www.environdec.com/PCR/
PCR (2015:09), Tanning chemicals v 1.01, The International EPD System, https://www.environdec.com/PCR/

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9 VERSION HISTORY OF PCR

VERSION 1.0, 2021-05-03

Original version of the PCR.

VERSION 1.1, 2022-01-14

- Upgrading of the PCR into a main PCR, thereby allowing the development of c-PCRs with additional requirements and further specifications, for more specific product categories of basic chemicals.

- Editorial changes.

VERSION 1.1.1, 2023-03-06

Editorial changes: corrected errors in the numbering of classes in UN CPC group 345 in Section 2.2.1, and corrected a broken link in Section 2.2.3.

VERSION 1.1.2, 2024-01-25

Updated with changed scope, excluding UN CPC 34290, which is now instead covered by PCR 2024:01 Rare-earth concentrates, oxides, metals, and magnets (for non-construction uses). Version 1.1.1 of the present PCR will continue to be valid in parallel to version 1.1.2 (later updated to version 1.1.3) during a six-month transition period ending 2024-07-25, not to interfere with ongoing EPD projects for products belonging to UN CPC 34290.

VERSION 1.1.3, 2024-03-04

Editorial changes, including a change to correct version number at the cover page.

VERSION 1.1.4, 2025-01-20

Updated with a new PCR Moderator and an extended validity with one year (until 2026-05-03) due to the initiation of an updating process.

VERSION 1.1.5, 2025-04-11

Updated with a new affiliation and contact information of the PCR Moderator.

VERSION 1.1.6, 2026-04-15

Updated with an extension of validity period for 6 more months (until 2026-11-03) as the PCR development is in progress.

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