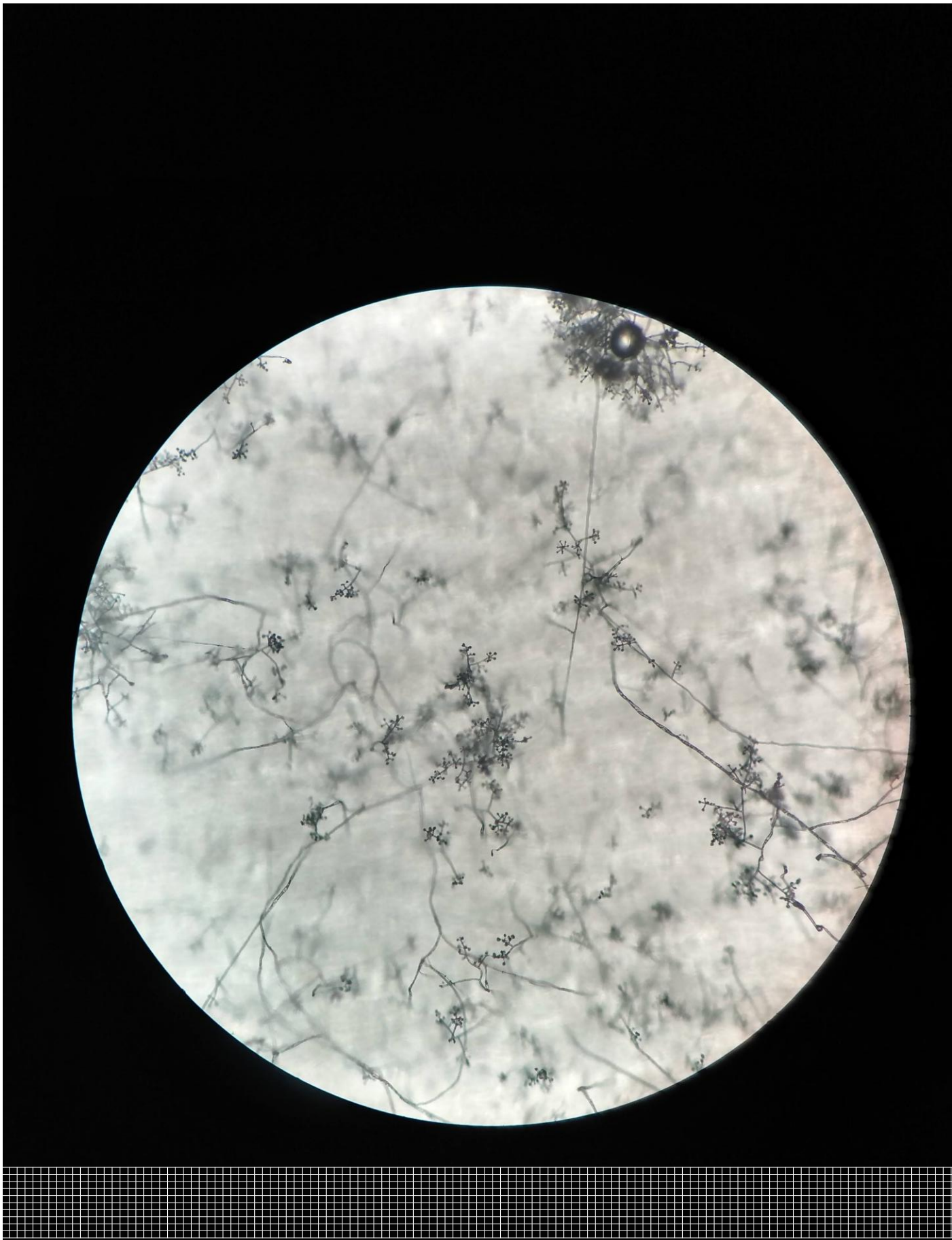
PRODUCT CATEGORY RULES (PCR)
PUBLICATION DATE 2025-04-17

EPD
INTERNATIONAL EPD SYSTEM

BIOSTIMULANTS

PCR 2025:02
VERSION 1.0.0

VALID UNTIL 2029-04-17



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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. 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 Figure 1), 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.

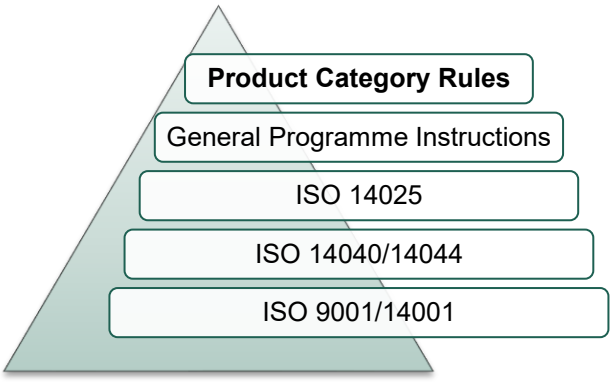

Figure 1. The hierarchy between PCRs, standards, and other documents. EN 15804 and ISO 21930 are normative standards for construction products only.

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 recommendation 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 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Biostimulants
Registration number and version:	PCR 2025:02, version 1.0.0
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:	Javier Martin Echazarreta, Instituto Nacional de Tecnología Industrial (INTI), jechazarreta@inti.gob.ar
PCR Committee:	Charnett Chau from Saint-Gobain UK, Adolfo Bercheni from Bioquimica S.R.L., Daniel El Chami from TIMAC Agro International, Altieri Alessio from Syngenta
Publication date:	2025-04-17 (version 1.0.0) See Section 9 for a version history of the PCR.
Valid until:	2029-04-17 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.

Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.1, based on ISO 14025 and ISO 14040/14044.[2]
PCR language(s):	At the time of publication, this PCR was available in English *and Spanish*. 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 biostimulants, which are defined as "certain substances, mixtures and micro-organisms, referred to as plant biostimulants, are not as such inputs of nutrients, but nevertheless stimulate plants' natural nutrition processes" (European Commission 2019) and the declaration of this performance by an EPD. The product category does not correspond to any group, class, or subclass in the UN CPC classification system.

Many of the microbes involved form symbiotic relationships with the target crops where both parties benefit (mutualism). While biostimulants are applied to improve plant nutrition, they can also be used to promote plant growth by stimulating plant hormone production. Bacterial and fungal inoculants are the most common.

The product category covered in this PCR corresponds to a subset of the product function categories (PFCs) of EU fertilising products covered by EU Regulation (EU) 2019/1009 (European Commission 2019):

PFC 6: Plant biostimulant: biostimulant that stimulates plant nutrition processes independently of the product's nutrient content with the sole aim of improving one or more of the following characteristics of the plant or the plant rhizosphere: (a) nutrient use efficiency, (b) tolerance to abiotic stress, (c) quality traits, or (d) availability of confined nutrients in the soil or rhizosphere.

PFC 6(A): Microbial plant biostimulant (CMC 7: micro-organisms): An EU fertilising product belonging to PFC 6(A) may contain micro-organisms, including dead or empty-cell micro- organisms and non-harmful residual elements of the media on which they were produced, which have undergone no other processing than drying or freeze-drying. Products under PFC6(A) and others not referred to in the EU regulation are listed below as:

- Bacterial biostimulants
  - Azotobacter sp.
  - Rhizobium sp. (nitrogen fixing) | legumes.
  - Azospirillum sp. (nitrogen fixing) | Crops expect legumes
  - Agrobacterium sp[3]
  - Actinomycetes
- Fungus biostimulants
  - Mycorryzal fungi[4]
  - Mycorrhizal sp.
  - Ectomycorrhizae sp.
- Algae biostimulants
  - Blue-green algae

[2] 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.

[3] This biostimulant is not referred to in the EU regulation (European Commission 2019).

[4] This biostimulant is included in the EU regulation, under CMC 7: micro-organisms (European Commission 2019).

- Azolla | cyanobacteria

- Microbial consortium biostimulants

PFC 6(B): Non-microbial plant biostimulants is defined by EU regulation as “a non-microbial plant biostimulant shall be a plant biostimulant other than a microbial plant biostimulant” (European Commission 2019):

- Acid-based biostimulant: humic acids, fulvic acids, amino acids, kinetic acids, oxalic acids, acetic acids, others.
- Extract- based biostimulant: seaweed extracts, plants extract, chitin and chitosan extracts, algae extracts, chlorophyll extracts, echinacea extracts.

As there is no applicable UN CPC code for biostimulants, for classification of the product category the PCR instead refers to scientific family and genre, and underlying species, to classify the scope, as well as the EU regulation (European Commission 2019).

2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally.

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.

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

This PCR was available for open consultation from 2024-04-23 until 2024-06-22, 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. No stakeholders provided comments during the open consultation.

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:	Claudia A. Peña
Review dates:	2024-08-06 until 2024-10-01

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.
- Agence de l'Environnement et de la Maîtrise de l'Energie + AFNOR (ADEME)
- Association PEP (PEP Ecopassport)
- ASTM International (ASTM)
- Bau-EPD, https://www.bau-epd.at/
- BRE Global, https://bregroup.com/services/testing-certification-verification/en-15804-environmental-product-declarations/
- Canadian Standard Association Group (CSA)
- DAP Habitat System, https://daphabitat.pt/en_US/home/
- EPD Denmark, https://www.epddanmark.dk/
- EPD Ireland, https://www.igbc.ie/epd-home/
- EPD Italy, https://www.epditaly.it/

- EPD Norge, https://www.epd-norge.no
- EU's Product Environmental Footprint (PEF)
- Global EPD, https://www.aenor.com/certificacion/certificacion-de-producto/declaraciones-ambientales-de-producto
- IBU, https://ibu-epd.com/
- ITB EPD Program, https://www.itb.pl/epd
- Kiwa – Ecobility Experts, https://www.kiwa.com/de/en/themes/ecobility-experts/ecobility-experts-epd-program/
- Korean Environmental Industry & Technology Institute EDP (KEITI EDP)
- NSF International (NSF)
- PEP Ecopassport, http://www.pep-ecopassport.org/
- Programm für Umweltproduktedeklarationen des SÜGB, https://www.sugb.ch/
- RTS EPD, https://cer.rts.fi/en/rts-epd/
- UL Environment
- ZAG EPD, https://en.zag.si/en/epd

No existing PCRs or other relevant internationally standardised methods with overlapping scope were identified.

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 unit, system boundary, allocation methods, impact categories, data quality rules, etc.) were primarily based on the following underlying studies:

- Bioquímica S. R. L. (2025) LCA Report from in accordance with GPI 5.0.0 from the International EPD System.

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 UNIT

The declared unit of microbial plant biostimulants shall be defined as 1 gram and its packaging. The weight of packaging is not included in the weight of the declared unit but in scope of the analysis. The EPD shall be describe the number of Colony Forming Unit expressed in the scientific number per gram (CFU/g).

The declared unit of non-microbial plant biostimulant shall be defined as 1 gram at 20 °C and its packaging. The weight of packaging is not included in the weight of the declared unit but in scope of the analysis.

The reference flow in LCA shall be defined at the customer gate, at the shelf of the retailer or at the marketplace.

A description of the function of the product should be included in the EPD, if relevant.

4.2.1 TECHNICAL SPECIFICATION, LIFESPAN AND REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

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

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

PFC 6(A): MICROBIAL PLANT BIOSTIMULANT (CMC 7: MICRO-ORGANISMS)

The following unit processes are part of the product system and shall be classified as upstream processes:

- extraction and processing of raw materials, e.g., potato, rice, seed, glucose, polymers (agar)
- growing of mother strain,
- maintenance of the mother strain at laboratory, e.g., energy, feed, water consumption,
- laboratory supplies (state consumables, Petri plate, glass, tubes, sterile material, others),

- relevant services, such as transport of raw materials and components along the upstream supply chain to a distribution point (e.g., a stockroom or warehouse),
- production of distribution and consumer packaging, and
- generation of electricity and production of fuels, steam and other energy carriers used in upstream processes.

Processes not listed here 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.

PFC 6(B): NON-MICROBIAL PLANT BIOSTIMULANT

The following unit processes are part of the product system and shall be classified as upstream processes:

- organic acids, inorganic compounds, biopolymers, seaweeds and microalgae, proteins (collagen, hydrolysates, etc.), polysaccharides (glucose, chitosan, etc.), micro-organisms,
- laboratory supplies (state consumables, petri plate, glass, tubes, sterile material, others),
- relevant services, such as transport of raw materials and components along the upstream supply chain to a distribution point (e.g., a stockroom or warehouse),
- production of distribution and consumer packaging, and
- generation of electricity and production of fuels, steam and other energy carriers used in upstream processes.

Processes not listed here 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

PFC 6(A): MICROBIAL PLANT BIOSTIMULANT and CMC 7: MICRO-ORGANISMS

The following unit processes are part of the product system and shall be classified as core processes:

- production of materials and services to grow the inoculant at laboratory (small scale), consider at flask and benchtop,
- bioreaction,
- biostimulant output, which includes the scaling up of fermentation,
- preparation of the final product (e.g., filling and packaging of the final product),
- transportation of materials and components to the manufacturing of the product under study,
- end-of-life treatment of manufacturing waste, even if carried out by third parties, including transportation, and
- generation of electricity and production of fuels, steam and other energy carriers used in core processes.

PFC 6(B): NON-MICROBIAL PLANT BIOSTIMULANT

The following unit processes are part of the product system and shall be classified as core processes:

- if the EPD owner produces materials and compounds, these production processes shall be included as core processes,
- extraction and filter of different compounds
- mixing of different compounds,
- transportation of materials and components to the manufacturing of the product under study,
- manufacturing of the product under study,
- preparation of the final product (e.g., filling and packaging of the final product),
- end-of-life treatment of manufacturing waste, even if carried out by third parties, including transportation, and
- generation of electricity and production of fuels, steam and other energy carriers used in core processes.

Core 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.

Manufacturing of a minimum of 99% of the total weight of the declared product including packaging shall be included.

The following processes shall not be included

- business travel of personnel,
- travel to and from work by personnel, and
- research activities.

4.3.1.3 Downstream processes

The following unit processes are part of the product system and shall be classified as downstream processes:

- transportation of the product to retailer/consumer,
- product use, e.g., use of electricity or water, use activities causing direct emissions, maintenance activities,
- end-of-life treatment of the used product and its packaging, including transportation, and
- generation of electricity and production of fuels, steam and other energy carriers used in downstream processes.

Processes not listed here 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.

4.3.1.4 Excluded processes

See Section A.3.1.1 of the GPI.

4.3.1.5 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 below for rules on setting boundaries to other product systems.

4.4 PROCESS FLOW DIAGRAM

PFC 6(A): MICROBIAL PLANT BIOSTIMULANT and CMC 7: MICRO-ORGANISMS

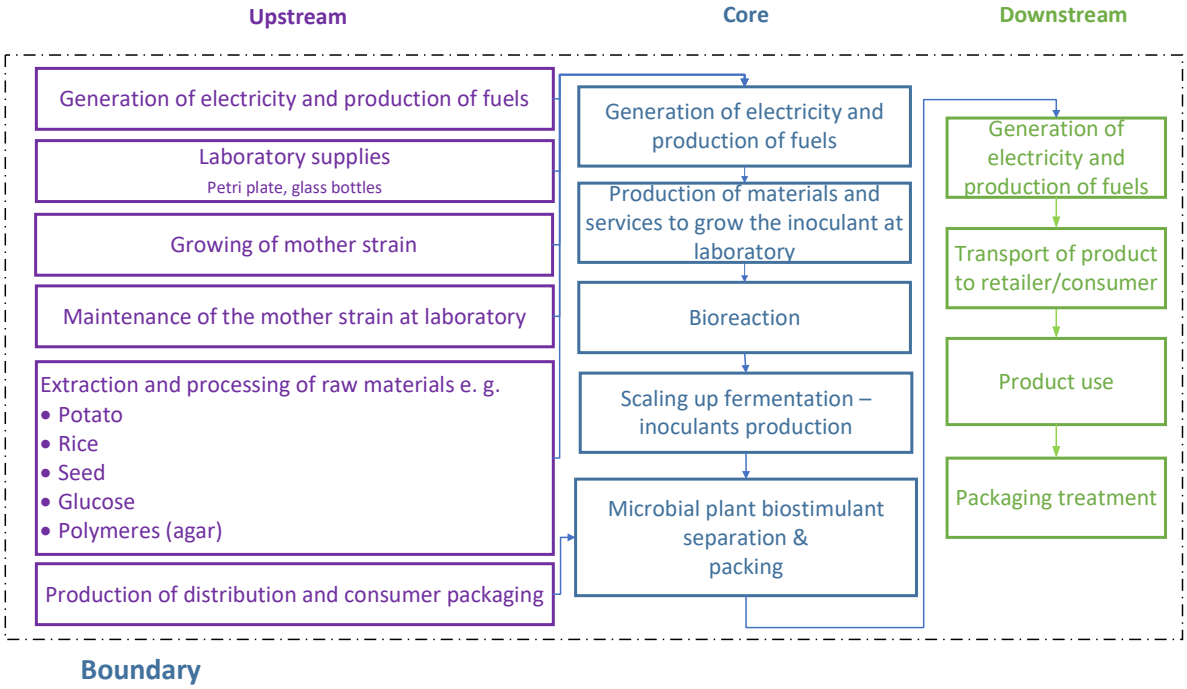

Figure 2. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

PFC 6(B): NON-MICROBIAL PLANT BIOSTIMULANT

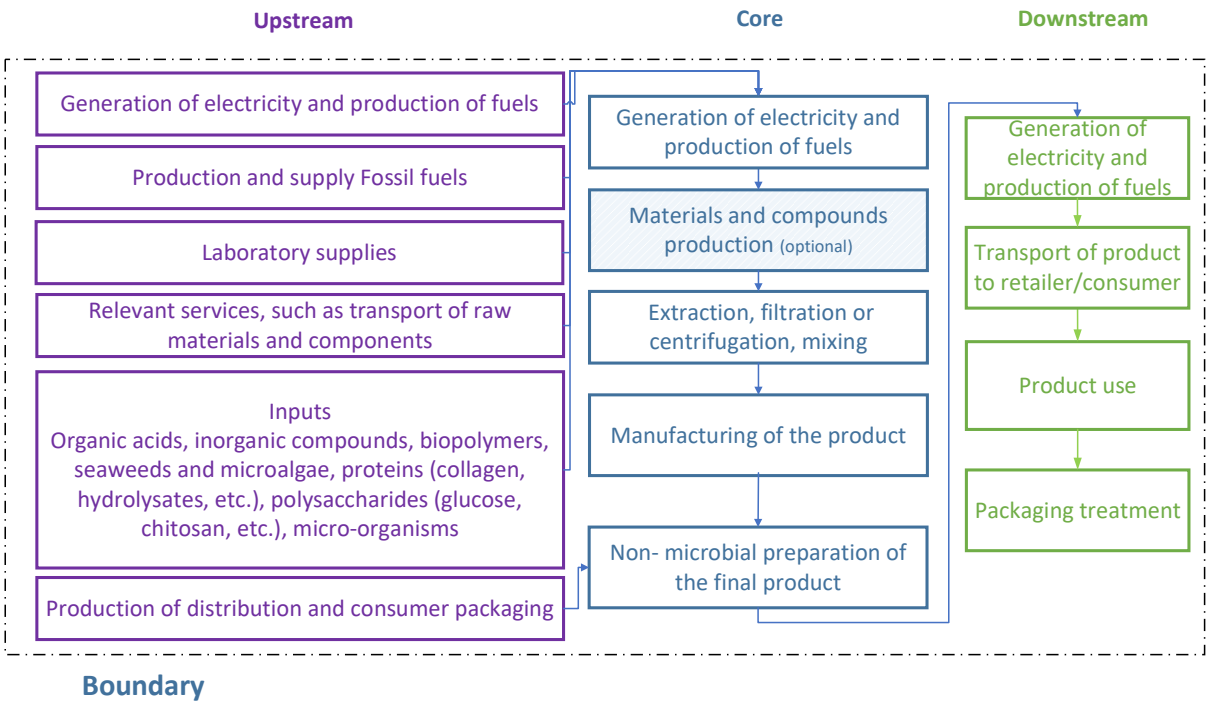

Figure 3. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

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.

Allocation to products from PFC 6(A): MICROBIAL PLANT BIOSTIMULANT or CMC 7: MICRO-ORGANISMS and PFC 6(B): NON-MICROBIAL PLANT BIOSTIMULANT shall be based on physical (mass) allocation.

4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

See Section 4.9 for further rules related to data and data quality per life-cycle stage.

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.

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 1 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 1. Examples of databases and datasets to use for secondary data.

Process	Geographical scope	Databases
Upstream – Core - Downstream	Worldwide	Ecoinvent, Sphera Managed LCA content, Agrifoodprint

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

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.

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.

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

The EPD shall include additional environmental performance indicators as listed below (using the impact assessment methods and characterisation factors of EN 15804).

- Particulate matter emissions (PM)
- Ionizing radiation, human health (IRP)
- Eco-toxicity - freshwater (ETP-fw)
- Human toxicity, cancer effect (HTP-c)
- Human toxicity, non-cancer effects (HTP-nc)
- Land use related impacts/Soil quality (SQP

The additional indicators shall be reported because the biological or nonbiological products may significantly reduce the environmental indicators previously described in agricultural production, which is considered an input to produce food.

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.

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.

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.

Regardless of geographical scope of the EPD, any technical product information declared in the EPD be in compliance with each part of the Technical Standard CEN/TS 17700 (CEN 2019a, 2019b, 2019c, 2019d, 2019e) and the EU regulations (European Commission 2019).

The EPD shall disclose the following technical information regarding the product's capacity to stimulate plant nutrition processes, as appropriate, regardless of its geographical scope:

- nutrient use efficiency, in accordance with CEN/TS 17700-2:2022, e.g., the agronomic efficiency of supply nutrients shall be declared to microbiological biostimulants,
- tolerance to abiotic stress, in accordance with CEN/TS 17700-3:2022,
- quality traits, in accordance with CEN/TS 17700-4:2022, and
- availability of confined nutrient in soil or rhizosphere CEN/TS 17700-5:2022.

If any country in the geographical scope of the EPD has another national standard for defining technical information on the product’s capacity to stimulate plant nutrition processes, it can be used instead of CEN/TS 17700. If another standard is used, it shall be clearly referenced in the EPD.

6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

Additionally, the content declaration shall follow the requirements from EU Regulation 2019/1009 part II to PFC 6(A): MICROBIAL PLANT BIOSTIMULANT and PFC 6(B): NON-MICROBIAL PLANT BIOSTIMULANT (European Commission, 2019).

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.

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.

7 LIST OF ABBREVIATIONS

CFs	Characterisation factors
CPC	Central product classification
EPD	Environmental product declaration
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life cycle assessment
PCR	Product category rules
RSL	Reference service life
UN	United Nations

8 REFERENCES

Bioquímica S. R. L. (2025) LCA report in accordance with GPI 5.0.0 from the International EPD System.

CEN (2019a) CEN/TS 17700-1:2022 Plant biostimulants – Claims Part 1 - General principles

CEN (2019b) CEN/TS 17700-1:2022 Plant biostimulants – Claims Part 2 -Nutrient use efficiency resulting from the use of a plant biostimulant

CEN (2019c) CEN/TS 17700-1:2022 Plant biostimulants – Claims Part 3 Tolerance to abiotic stress resulting from the use of a plant biostimulant

CEN (2019d) CEN/TS 17700-1:2022 Plant biostimulants – Claims Part 4 Determination of quality traits resulting from the use of a plant biostimulant

CEN (2019e) CEN/TS 17700-1:2022 Plant biostimulants – Claims Part 5 Determination of availability of confined nutrients in the soil or rhizosphere

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

European Commission (2019) Regulation (EU) 2019/1009 of The European Parliament and of The Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003.

Ecoinvent (2025) Ecoinvent database (latest version). https://ecoinvent.org/database/

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

Sphera (2025) Sphera Managed LCA Content. https://sphera.com/product-sustainability-gabi-data-search/, accessed April 2025.

9 VERSION HISTORY OF PCR

VERSION 1.0.0, 2025-04-17

Original version of the PCR.

INTERNATIONAL EPD SYSTEM

BIOSTIMULANTS