

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

PCR REGISTRATION NUMBER TO BE ADDED BY THE SECRETARIAT

VERSION NUMBER TO BE ADDED BY THE SECRETARIAT

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

PCR FOR OPEN CONSULTATION

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PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

INTRODUCTION TO OPEN CONSULTATION

This draft PCR document is available for open consultation from 2026-02-05 until 2026-04-05. 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>.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

TABLE OF CONTENTS

| | | |
|------|--|----|
| 1 | Introduction..... | 4 |
| 2 | General information..... | 5 |
| 2.1 | Administrative information..... | 5 |
| 2.2 | Scope of PCR..... | 6 |
| 3 | Review and background information..... | 8 |
| 3.1 | Open consultation..... | 8 |
| 3.2 | PCR review..... | 8 |
| 3.3 | Existing PCRs for the product category | 8 |
| 3.4 | Reasoning for development of PCR..... | 9 |
| 3.5 | Underlying studies used for PCR development | 9 |
| 4 | LCA method | 10 |
| 4.1 | Modelling approach..... | 10 |
| 4.2 | Declared/functional unit..... | 10 |
| 4.3 | System boundary..... | 11 |
| 4.4 | Process flow diagram..... | 14 |
| 4.5 | Cut-off rules..... | 15 |
| 4.6 | Allocation rules | 15 |
| 4.7 | Data and data quality rules..... | 15 |
| 4.8 | Other LCA rules | 17 |
| 4.9 | Specific rules per life-cycle stage and module D | 18 |
| 4.10 | Environmental performance indicators | 19 |
| 4.11 | Specflic rules per EPD type | 19 |
| 5 | Content of LCA report | 20 |
| 6 | Content and format of EPD | 21 |
| 6.1 | EPD languages..... | 21 |
| 6.2 | Units and quantities..... | 21 |
| 6.3 | Use of images in EPD | 21 |
| 6.4 | Sections of the EPD | 21 |
| 7 | List of abbreviations | 23 |
| 8 | References..... | 24 |
| 9 | Version history of PCR | 25 |

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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 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.

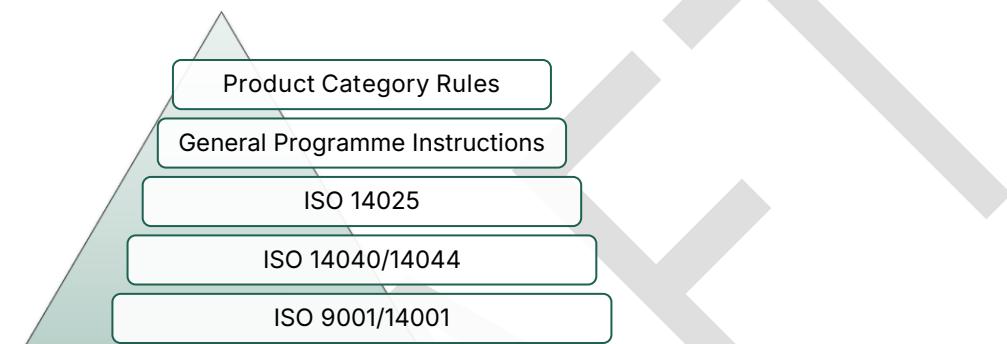


Figure 1. The hierarchy between PCRs, standards, and other documents

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

| | |
|----------------------------------|--|
| Name: | Professional cleaning services |
| Registration number and version: | <i>To be added by the Secretariat</i> |
| Programme: |  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: | Michela Gallo, Tetis Institute S.r.l., gallo@tetisinstitute.it |
| PCR Committee: | CE.Si.S.P. (Centre for the Development of Product Sustainability), www.cesisp.unige.it - University of Genoa TETIS Institute Srl, Spin Off of the University of Genoa, Italy, www.tetisinstitute.org Dussmann Service srl - https://it.dussmann.it/ |
| Publication date: | <i>To be added by the Secretariat</i> See Section 9 for a version history of the PCR. |
| Valid until: | <i>To be added by the Secretariat</i> 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/TS 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. |

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

| | |
|--------------------------------------|---|
| | 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: | <ul style="list-style-type: none"> 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. 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 professional cleaning services and the declaration of this performance by an EPD. The product category corresponds to the following UN CPC classification hierarchy:

Section: 8 - Business and production services

- Division: 85 - Support services
 - Group 853: - Cleaning services
 - Class: 8531 – Disinfecting and exterminating services
 - Class: 8532 - Window cleaning services
 - Class: 8533 – General cleaning services
 - Class: 8534 - Specialized cleaning services

Section: 9 - Community, social and personal services

- Division: 97 - Other services
 - Group: 971 - Washing, cleaning and dyeing services
 - Class: 9711- Coin-operated laundry services
 - Class: 9712 - dry-cleaning services
 - Class 9713:other textile cleaning services

Cleaning services for buildings (sub class 85330) are excluded and covered by PCR 2011:03 Professional cleaning services for buildings.

See <https://unstats.un.org/unsd/classifications/Family/Detail/1074> for more information about the product group.

The services included in the product category definition are the laundry and cleaning services provided both by private and public sector for sanitary, medical, industrial, civil activities and accommodation (hotels, restaurants, etc.). Main aspects defining a laundry and cleaning services are:

- type of cleaning system used in terms of machinery and equipment used (e.g. washing and ironing machines) and type of process (washing, drying, ironing, sterilizing by using steam, gamma ray, etc.)
- type of site (hospital, accommodation, hotels, factories, restaurants, etc.)
- type of clean item/object. This PCR covers the following (the list is not exhaustive):
 - textiles such as clothes, linen, workwear (PPE included), etc.

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

- reusable cleanroom garments used in cleanroom areas in pharma, microelectronic, food industries, etc.
- mattresses (standard and antidecubitus) and pillows
- non-textile items, such as cutlery, dishes, personal protective equipment (PPE), surgical tools, coins, bins, containers, etc.
- equipments and machineries such as trains, buses and planes, cars, etc.
- streets, parks, pools, etc.

Environmental impact results related to different items/object and/or different cleaning system shall be calculated and reported separately in different EPDs.

Only environmental impact results of EPDs referring to same types of cleaning services and clean item/object can be compared.

The scope of this PCR is to compare professional cleaning services to each other. However important issues, such as the level of hygienization and stain-removal are not taken into account in the definition of the functional unit. These issues are of great importance to the overall sustainability of cleaning services and should therefore always be considered in comparative analyses based on this PCR.

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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 *date* until *date*, 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:

- *List of stakeholder names and affiliation (to be added after the open consultation).*

In case no stakeholders provided comments and agreed to be listed as contributors, the above sentence shall be adjusted accordingly ("No stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com.) and the bullet list shall be removed.

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: | <i>To be added by the Secretariat</i> |
| Review dates: | <i>To be added by the Secretariat</i> |

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.
- PEP ecopassport®. <http://www.pep-ecopassport.org/create-a-pep/produce-a-lca/>
- Japan Environmental Management Association for Industry (JEMAI). <http://www.ecoleaf-jemai.jp/eng/pcr.html>
- UL Environment. <https://industries.ul.com/environment/transparency/product-category-rules-pcrs#uledev>
- EPD Italy <https://www.epditaly.it/pcr-in-via-di-sviluppo/>
- European Commission Product Environmental Footprint (PEF) initiative

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

Table 1 lists the identified PCRs and other standardised methods.

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 |
|--|--------------------------------|---|--------|
| 2020:02 PROFESSIONAL LAUNDRY AND CLEANING SERVICES OF ITEMS | EPD International | VERSION 1.0 2020-02-27 | Global |
| 2017:02 PROFESSIONAL CLEANING SERVICES FOR PASSENGER TRAINS | EPD International | VERSION 2.0 2022-07-15 | Global |
| 2018:05 SERVICE OF PROVIDING WASHED AND STERILIZED REUSABLE SURGICAL DRAPES AND GOWNS USED FOR PATIENTS AND CLINICAL STAFF | EPD International | VERSION 1.02 2020-03-04 (expired) | Global |
| 2011:33 PROFESSIONAL CLEANING SERVICES FOR BUILDINGS | EPD International | VERSION 3.0.1, 2022-04-13 (being updated) | Global |

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the service category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044, harmonizing some existing or expired PCRs with a too specific scope of application. 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:

- Life-Cycle Assessment (LCA) applied to MICRORAPID cleaning system (June 2018)
- Life-cycle Assessment (LCA) applied to cleaning system MARKAS (rev.3 September 2015)
- Studio LCA pulizia Servizi Associati Ottobre 2018
- LCA and CFP report of Servizi Italia, March 2019
- LCA DUSSMAN 3-4-2021

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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

This PCR defines different functional units depending on the type of item/object to be cleaned (see Section 2.2.1) as specified in Table 1.

Table 1. Functional units to be used based on the type of clean item/object

| CLEAN SERVICES FOR: | FUNCTIONAL UNIT |
|---|---------------------------|
| weighable item/object (e.g. clothes, pillows, PPE, dishes, coins, surgical tools, etc.) | 1 kg of clean item/object |
| measurable in length (e.g. road, streets) | 1 clean km (or m) |
| surface units (e.g. courtyards, glass windows, industrial yards) | 1 clean m ² |
| volume unit (e.g. a pool)ed as | 1 clean m ³ |
| equipment (i.e. machineries, cars, planes,etc) | 1 clean equipment |
| Rails vehicles | 1 clean coach |

The definition of a clean item/object refers to the contractual agreement between the client and the cleaning service supplier: for assuring cleanliness, the services can be provided by different activities (washing, ironing, stain removal, sanitising, etc...), but the item/product is to be considered cleaned when ready for a new use.

A description of the function of the service shall be included in the EPD.

Professional cleaning services are provided for different types of items and different types of clients (as defined in Section 2.2.1).

The Life Cycle Inventory (LCI) shall be created separately per type of item/object and results declared in separated EPDs, but can cover different type of clients for which the same services are provided.

The results could be referred to a single client or to an average data source. Regarding the use of average data, the analysis can yield the results related to an "average" of different clients to which the service is provided and considered in the data collection. Then, the average profile can be derived from the average values of all the clients considered, but always for the same type of cleaning services.

For the cleaning services for buildings, PCR 2011:33 shall be applied.

4.2.1 REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

4.2.2 PRODUCT LIFESPAN

Not applicable for this product category.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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.

All environmentally relevant processes from cradle-to-grave shall be included, so that at minimum 95% of the total energy use, mass of product content, and environmental impact is accounted for (see Section 4.5).

4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

Because of 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:

- Product stage, modules A1-A3:
 - A1: Raw material extraction and processing (e.g., mining, agricultural and forestry operations), production of intermediate materials and components (e.g., including transformation processes such as rolling, drawing and extrusion), processing of secondary material input (e.g., recycling processes), production of distribution and consumer packaging, etc.
 - A2: Transports from suppliers to cleaning service provider
 - A3: Manufacturing of the product³: not applicable since it pertains to a service.
- Distribution and installation stage, modules A4-A5:
 - A4: Transport of the product to the building, site/user, including storage of product (e.g., warehouse and retail operations)
 - A5: Installation of the product, for example installation of equipment in a building (e.g., including waste transport and waste processing of packaging material and product losses arising in A5)
- Use stage, modules B1-B7:
 - B1: Use/application/operation of the product (e.g., including direct emissions associated with its use)
 - B2: Maintenance of the product
 - B3: Repair of the product
 - B4: Replacement
 - B5: Refurbishment
 - B6: Energy use in use/application/operation
 - B7: Water use in use/application/operation
- End-of-life stage, modules C1-C4:
 - C1: De-construction/demolition/deinstallation
 - C2: Transport to waste processing and/or disposal
 - C3: Waste processing for reuse, recovery and/or recycling
 - C4: Disposal

In addition, consequences of recovered material/energy beyond the product cycle shall be reported in module D.

In the EPD, the environmental performance of each of the life-cycle stages and module D shall be reported separately, and in aggregated form for the life-cycle stages (modules A-C).

³ These are often, but not always, the processes under operational control of the EPD owner.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

Section A.3.1 of the GPI outlines rules for how to assign generation of electricity and production of fuels, steam and other energy carriers used, and losses arising, in each information module.

Sections Error! Reference source not found.–Error! Reference source not found. further describe the processes to include or exclude for each life-cycle stage.

4.3.1.1 Modules A1-A3: Product stage

- Module A1:
 - Extraction and production of raw materials (e.g. steel, plastics, etc.)
 - Production of any chemical, machinery, equipment packaging, consumable used in the cleaning service: e.g. detergents, disinfectants, special-purpose cleaning products, textiles (mop, cleaning cloths, etc), floor scrubber, vacuum cleaners, single disc machine, trays, buckets, waste collection bags, gloves, PPE, bag holders, supports, brush, etc)
 - Energy wares needed for the production of all equipment and consumables
- Module A2:
 - Transport of all equipment and consumables from suppliers/manufacturer to the cleaning service provider.

Note: In certain cases, for this type of service, the transportation of specific components may bypass this module and go directly from the supplier/manufacturer to the site where the cleaning services is provided. In such circumstances, the transportation falls under A4.
- Module A3: Not applicable since it pertains to a service.

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.

Any machinery (i.e. washing machine) and equipment used in the operation of the service with an expected lifetime over three years is considered as capital goods and their manufacturing shall be included in the system boundaries taking in consideration the expected lifetime listed in the following table in order to calculate the contribution to final impact in the reference period (i.e. 1 year). With an expected lifetime of less than three years, they shall be considered consumables.

The following expected lifetime shall be applied in calculation. Any deviation shall be justified and approved by the verifier.

| Machinery/Equipment | Expected lifetime (year) |
|---|--------------------------|
| Washer dryer and washing machine | 6 |
| Scrubbing machines, liquid vacuum machine, floor sweeping machines, monobrush | 5 |
| Inox trolley | 7 |
| Plastic polymer trolley | 4 |
| Other equipment | 5 |

Chemicals shall be included as amount of the generic substances: i.e. kg of soap, detergents, paraffin, etc.

Otherwise they shall be included considering the concentration of the chemicals (e.g. sodium hydroxide) plus the weight of the content of water. The percentage of chemicals can be deduced by the safety data sheets of the cleaning products.

The technical system shall not include in the inventory data the manufacturing of the clean item (i.e. coins, cars, pillows, etc...)

4.3.1.2 Modules A4-A5: Distribution and installation stage

Typical processes of each information module of this life-cycle stage are:

- Module A4:

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

- Transportation (round trip) of consumables, machinery and equipment from cleaning service provider to the site where the cleaning service is performed. If the supply is managed by a cleaning equipment dealer, transportation occurs from the dealer's storage site to the building site where the cleaning service is performed. Machineries and equipment transportation shall be considered only in case it is carried out constantly in supplying the service.
- Warehouse operations.
- Module A5:
 - Installation of equipment in the site where the service is provided (e.g., including transports and waste processing of material losses arising in A5)
 - Waste processing of packaging from machinery and equipment installed (including transportation from the installation site to the treatment site).

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.

4.3.1.3 Modules B1-B7: Use stage

Typical processes of each information module of this life-cycle stage are:

- Module B1:
 - Use of the cleaning machineries (i.e. weepers, scrubber dryers, single disk, wet and dry vacuum cleaners, carpet cleaners, steam cleaners, high pressure washers, etc.), including direct emissions associated with its use. Energy and water consumption are included in B6 and B7 respectively.
 - Periodical (i.e. once a week, every day, etc..) travel to and from the cleaning site of operational staff used for the cleaning service,
 - Research and development activities
- Module B2:
 - Maintenance of machinery and equipment, if relevant
- Module B3:
 - Repair of machinery (washing machines, other machinery involved in operation), if relevant
 - Repair of equipment, if relevant
- Module B4:
 - Replacement of equipment and machinery, if relevant
- Module B5:
 - Refurbishment of equipment (e.g.: washing machines), if relevant
- Module B6:
 - Production of fuels and heat used in the service
 - Energy use in operation
 - Generation of the electricity used by equipment and machineries, according the proper energy mix hypotheses
- Module B7:
 - Water use in operation (by machineries, equipment)
 - Water used for dilution of chemicals (i.e. tap water).

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

4.3.1.4 Modules C1-C4: End-of-life stage

Typical processes of each information module of this life-cycle stage are:

- Module C1:
 - Deinstallation of machineries or equipment (if applicable)
 - Dismantling of machinery
- Module C2:
 - Transport to waste processing and/or disposal
- Module C3:
 - Waste processing for reuse, recovery and/or recycling
- Module C4:
 - Disposal of material, consumables, machinery and equipment

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.

4.3.1.5 Excluded processes

See Section A.3.1.1 of the GPI.

- Module A1: Toiletry products (such as soap, toilet paper, and paper towels) shall be excluded.
- Module B1: Business travel of personnel, waste and wastewater from extraordinary maintenance operations may be excluded

4.3.1.6 Infrastructure and capital goods

See Section A.3.1.2 of the GPI. Equipments shall be included according to Module B1.

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

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

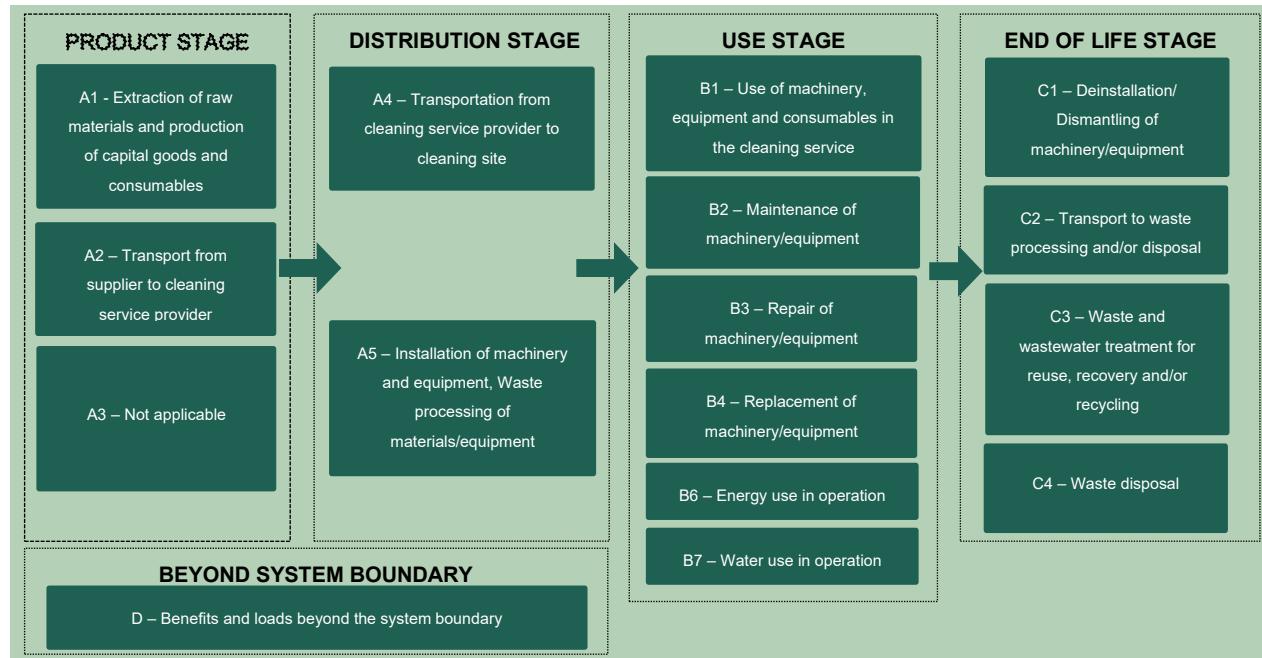


Figure 1. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

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.

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.

An LCA calculation for professional cleaning services requires two different kinds of information:

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

- Data related to the environmental aspects of the cleaning system, such as materials or energy flows entering the cleaning service operations. These data must come from the service provider where the service is performed.
- Data related to the life cycle impacts of the material or energy flows used in the cleaning process, typically sourced from databases.

Primary data shall always be used when available, following a data quality assessment. It is mandatory to use specific data for core cleaning processes as defined above. For upstream and downstream processes, as well as infrastructure, selected generic data may be used when specific data are not available.

Generally data referring to the chemicals used in the cleaning service are proxy data, unless specifically modelled using specific information derived from the safety data sheets.

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.⁴ 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.⁵ In such reassessments, it may be that data is 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.

A list of all the clients involved in the data collection, comprehensive of the characteristics of the services (washing, ironing, stain removal, sanitising etc.) involved in data collection, shall be provided in the LCA

Specific data are gathered from the service supplier and from the clients to which the professional cleaning service is carried out. Then, the average profile can be derived from the average values of the sites of the supplier and the clients considered.

The average profile shall be created separately per type of item.

A list of all the sites, comprehensive of the characteristics of the services (washing, ironing, stain removal, sanitising etc.) and client(s) involved in data collection shall be provided in the EPD. The declaration must include appropriate considerations regarding representativeness and relevance of the selected sites (i.e. type machinery and equipment used, type of cleaning activity) and client(s) for the analysis. Any cherry-picking mechanism shall be avoided, paying particular attention to energy consumption.

Data collection shall be consistent with the following rules:

- Site/sites specific data shall be used at least for:
 - use of chemicals and materials (consumables) in supplying the laundry and cleaning service,

⁴ 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.

⁵ 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 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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

- use of the machineries, equipment and any other support involved in the laundry service,
- waste and wastewater generated in supplying the service,
- maintenance, and
- transport of items from/to clients.

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

| Process | Geographical scope | Database |
|----------------------------------|--------------------|---|
| Steel | Global | Worldsteel www.worldsteel.org |
| Primary copper / Copper products | Global | ICA (International Copper Association) www.copperinfo.com ECI (European Copper Institute – Life Cycle Centre) www.copper-lifecycle.org |
| Fuels | Global | European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/ |
| Aluminium | Global | EAA (European Aluminium Association) www.aluminium.org |
| Plastics | Global | Plastics Europe www.plasticseurope.org |
| Chemicals | Global | Plastics Europe www.plasticseurope.org |
| Transports | Global | NTM (Network for Transport and Environment) or regional alternatives https://www.transportmeasures.org/en/ |
| Waste Management | Global | European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/ |

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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."

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.

Below are further data quality requirements and other LCA rules per life-cycle stage, and for module D, of relevance for the product category.

4.9.1 PRODUCT STAGE, A1-A3

See Section A.7.1 of the GPI.

- Data referring to processes and activities upstream in a supply chain over which the organisation (the EPD owner) has direct management control shall be specific and collected on site.
- Data referring to contractors that supply the consumables, materials, chemicals, packaging or main auxiliaries should be requested from the contractor as primary data.
- The transport of raw materials along the supply chain to the manufacturer should take place based on the actual transportation mode, distance from the supplier, and vehicle load.

4.9.2 DISTRIBUTION AND INSTALLATION STAGE, MODULES A4-A5

See Section A.7.2 of the GPI.

Transport from the manufacturer of chemicals, cleaning materials, machineries and equipment to the site where the service is provided should be based on the actual transportation mode, distance from the supplier, and vehicle load, if available.

4.9.3 USE STAGE, MODULES B1-B7

See A.7.3 of the GPI.

Primary data shall be used for the use of chemicals and materials (consumables) in supplying the cleaning service, the use (e.g. energy and water consumption) and maintenance of the machineries, equipment and any other support involved in the cleaning service.

4.9.4 END-OF-LIFE STAGE, MODULES C1-C4

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of the end-of-life stage.

4.9.5 CONSEQUENCES FOR RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D)

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of the end-of-life stage.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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.

DRIVE

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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.

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 functional unit, per life-cycle stage and module D.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

Information such as the presence of heavy metals and Polycyclic Aromatic Hydrocarbon (PAH), chemical products classified as carcinogenic, toxic to reproduction or causing inheritable damage shall be provided by the organisation. The classification shall be in accordance with the applicable laws where the service is provided (e.g. in Europe regulations regarding the classification and labelling of hazardous chemicals in EU classification system 1999/45/EC, with amendments).

Qualitative information about recycling or handling (end of life) of capital goods (e.g. machineries and equipment) and consumables can be included in the EPD.

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.

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

7 LIST OF ABBREVIATIONS

| | |
|-----|--|
| 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 |

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

8 REFERENCES

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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.

Life-Cycle Assessment (LCA) applied to MICRORAPID cleaning system (June 2025)

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Studio LCA pulizia Servizi Associati October 2018

PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

9 VERSION HISTORY OF PCR

VERSION 1.0.0, 2026-MM-DD

Original version of the PCR

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PROFESSIONAL CLEANING SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853, UN CPC 9711, UN CPC 9712, UN CPC 9713

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