| Property | PCF Calculation: M - Mandatory/ O - Optional/ O* - Mandatory starting 2025 | Data Type Specification | Example |
|---|---|---|---|
| Product Footprint Identifier | O | String; must be a UUID v4 | 3893bb5d-da16-4dc1-9185-11d97476c254 |
| Product Footprint Specification Version | M | Text | urn:io.catenax.pcf:datamodel:version:7.0.0 |
| Partial Or Full PCF (Product Carbon Footprint) | M | Enumeration; "Cradle-to-gate", "Cradle-to-grave" | Cradle-to-gate |
| Previous PCF (Product Carbon Footprint) Identifiers | O | Non-empty set of strings | 9c5b94b1-35ad-49bb-b118-8e8fc24abf8 |
| Product (Carbon) Footprint Version | O | Integer in inclusive rage of 0..2^31-1; per default "0" in Catena-X | 0 |
| Creation of the Product (Carbon) Footprint | M | Time stamp; must be in UTC (Coordinated Universal Time) conforming to ISO 8601 | 2020-03-01T00:00:00Z |
| Status | O | Enumeration; "Active", "Deprecated"; per default "Active" in Catena-X | Active |
| Validity Period Start | O | Time stamp; if defined, must be equal to or greater than referencePeriodEnd | 2022-01-01T00:00:01Z |
| Validity Period End | O | Time stamp | 2022-12-31T23:59:59Z |
| Comment | O | Text | Additional explanatory information not reflected by other attributes |
| PCF (Product Carbon Footprint) Legal Statement | O | Text | This PCF (Product Carbon Footprint) is for information purposes only. It is based upon the standards mentioned above. |
| Company Name | O | String with 1 or more characters | My Corp |
| Company Ids | O | Non-empty set of URN (Uniform Resource Name); array of strings (<URN> ::= "urn:" <NID> ":" <NSS>) | urn:bpn:id:BPNL000000000DWF |
| Product Description | O | Text | Ethanol, 95% solution |
| Product Ids | M | Non-empty set of URN; array of strings (<URN> ::= "urn:" <NID> ":" <NSS>) | urn:gtin:4712345060507 |
| Product Category | O | String; UN CPC Code version 2.1; per default "011-99000" in Catena-X | 011-99000 |
| Product Trade Name | O | String with 1 or more characters | My Product Name |
| Unit of measurement | M | String; enumeration as specified by WBCSD plus "piece" for Catena-X | kilogram |
| Unitary Product Amount | M | Positive, non-zero decimal number | 1000.0 |
| Product Mass Per Declared Unit | M | Positive, non-zero decimal number | 0.456 |
| Exempted Emissions Percent | M | Decimal number between 0.0 and 5 including | 0.0 |
| Exempted Emissions Description | O | Text; can be empty | No exemption |
| Packaging Emissions Included | M | Boolean; can be "TRUE" or "FALSE" | TRUE |

| Property | PCF Calculation: M - Mandatory/ O - Optional/ O* - Mandatory starting 2025 | Data Type Specification | Example |
|---|---|---|---|
| Boundary Processes Description | O | Text | Electricity consumption included as an input in the production phase |
| Geography Country Subdivision | O | String; if defined must be ISO 3166-2 Subdivision Code | US-NY |
| Geography Country | O | String; if defined must be an ISO 3166-2 alpha-2 code | FR |
| Region | O | String with 1 or more characters; enumeration as specified by WBCSD plus "Global" and "Several" for Catena-X | Africa |
| Reference Period Start | M | Time stamp; must be in UTC conforming to ISO 8601 | 2022-01-01T00:00:01Z |
| Reference Period End | M | Time stamp; must be in UTC conforming to ISO 8601 | 2022-12-31T23:59:59Z |
| Cross Sectoral Standard | M | Object crossSectoralStandardsUsed: set of Cross Sectoral Standard entries. For each crossSectoralStandard: Enumeration "ISO 14067", "Pathfinder v1", "Pathfinder v2", "GHG Protocol Product Standard", "PAS 2050", "ISO 14040-44", "PEF", "Other" | GHG Protocol Product Standard |
| Operator or Publisher of Sector Specific Rules | M | Object productOrSectorSpecificRules; set of Product or Sector Specific Rule entries (each including Operator, Rule Names and Other Operator Name) For each operator: enumeration "PEF", "EPD International", "Other"; per default "Other" in Catena-X | Other |
| Product or Sector Specific Rule Names | M | Object productOrSectorSpecificRules; set of Product or Sector Specific Rule entries (each including Operator, Rule Names and Other Operator Name) For all rulenames: set of RuleName entries | urn:tfs-initiative.com:PCR:The Product Carbon Footprint Guideline for the Chemical Industry:version:v2.0 |
| Other Operator Name | O | Object productOrSectorSpecificRules; set of Product or Sector Specific Rule entries (each including Operator, Rule Names and Other Operator Name) For each otherOperatorName: Non-empty string | NSF |
| Characterization Factors | M | Enumeration "AR6", "AR5"; per default "AR6" in Catena-X | AR6 |
| Allocation Rules Description | O | Text; per default "In accordance with Catena-X PCF Rulebook" in Catena-X | In accordance with Catena-X PCF Rulebook |
| Allocation Waste Incineration | M | Enumeration "cut-off", "reverse cut-off", "system expansion"; per default "cut-off" in Catena-X | cut-off |
| Primary Data Share | O* | Decimal number in range of and including 0..100 | 7.183924 |
| Emission Factor Data Source | M | Object; set of EmissionFactorDataSources | ecoinvent 3.8 |
| Coverage Percent | O* | Decimal number in range of and including 0..100; per default "100" in Catena-X | 100 |
| Technological DQR (Data Quality Rating) | O | Decimal number in range of and including 1..3 | 2.0 |
| Temporal DQR (Data Quality Rating) | O | Decimal number in range of and including 1..3 | 2.0 |
| Geographical DQR (Data Quality Rating) | O | Decimal number in range of and including 1..3 | 2.0 |
| Completeness DQR (Data Quality Rating) | O | Decimal number in range of and including 1..3 | 2.0 |
| Reliability DQR (Data Quality Rating) | O | Decimal number in range of and including 1..3 | 2.0 |

| Property | PCF Calculation: M - Mandatory/ O - Optional/ O* - Mandatory starting 2025 | Data Type Specification | Example |
|---|---|---|---|
| PCF (Product Carbon Footprint) Excluding Biogenic | M | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 2.0 |
| PCF (Product Carbon Footprint) Including Biogenic | O* | Must be calculated per declared unit with kgCO2e / declaredUnit | 1.0 |
| Fossil Emissions | O* | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.5 |
| Biogenic Carbon Emissions Other Than CO2 | O* | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 1.0 |
| Biogenic Carbon Withdrawal | O* | Must be calculated per declared unit in kgCO2e / declaredUnit equal to or less than zero | 0.0 |
| dLUC (direct land use change) GHG (Greenhouse Gas) Emissions | O* | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.4 |
| LU (Land Use) GHG (Greenhouse Gas) Emissions | O* | Must be calculated per declared unit with kgCO2e / declaredUnit | 0.3 |
| Aircraft GHG Emissions | O* | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.0 |
| Packaging GHG (Greenhouse Gas) Emissions | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.0 |
| Distribution Stage PCF (Product Carbon Footprint) Excluding Biogenic | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 1.5 |
| Distribution Stage PCF (Product Carbon Footprint) Including Biogenic | O | Must be calculated per declared unit with kgCO2e / declaredUnit | 0.0 |
| Distribution Stage Fossil GHG (Greenhouse Gas) Emissions | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.5 |
| Distribution Stage Biogenic Carbon Emissions Other Than CO2 | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 1.0 |
| Distribution Stage Biogenic Carbon Withdrawal | O | Must be calculated per declared unit in kgCO2e / declaredUnit equal to or less than zero | 0.0 |
| Distribution Stage dLUC (direct land use change) GHG (Greenhouse Gas) Emissions | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 1.0 |
| Distribution Stage LU (Land Use) GHG (Greenhouse Gas) Emissions | O | Must be calculated per declared unit with kgCO2e / declaredUnit | 1.1 |
| Distribution Stage Aircraft GHG Emissions | O | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 0.0 |
| Carbon Content Total | O* | Must be calculated per declared unit with kgCO2e / declaredUnit equal to or greater zero | 2.5 |
| Fossil Carbon Content | O* | Must be calculated per declared unit with kgC / declaredUnit equal to or greater zero; per default calculated in Catena-X (Total - Biogenic) | 0.1 |
| Biogenic Carbon Content | O* | Must be calculated per declared unit with kgC / declaredUnit equal to or greater zero | 0.0 |