

Circular Economy Ontology Network (CEON) - Product Module

Metadata

IRI

<http://w3id.org/CEON/ontology/product/>

Title

Circular Economy Ontology Network (CEON) - Product Module

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Version Iri

<http://w3id.org/CEON/ontology/product/0.2/>

Version Info

0.2

Preferred Namespace Prefix

product

Preferred Namespace Uri

<http://w3id.org/CEON/ontology/product/>

Description

The Product module of CEON (Circular Economy Ontology Network).

Covers Requirements

In addition to requirements covered by imported ODPs, covers the following requirements from Onto-DESIDE D3.1: CVN-Resource-2, CVN-ResourceType-4, C11-2, C12-1, C13-3, E2-1, T8-3.

Classes

| Matter composition ^c | |
|---------------------------------|--|
| IRI | http://w3id.org/CEON/ontology/product/MatterComposition |
| Description | A product composition is the composed information of a product in terms of a specific component, in which such a component is also a matter. |
| Sub Class Of | resourceODP:Composition |
| In Domain Of | associated with matter ^{op} |
| Restriction | associated with matter ^{op} <i>exactly</i> 1 Matter composition ^c |

Product model^C

| | |
|--------------------|--|
| IRI | http://w3id.org/CE0N/ontology/product/Product |
| Description | Represents the common sense notion of a product, i.e. the abstract notion of a product type or product model, which is a model that is used for manufacturing products. |
| In Range Of | associated with product model ^{OP} batch of products ^{OP} modelled by ^{OP} |
| Restriction | hasComposition ^{OP} some Product model ^C hasComposition ^{OP} some Product model ^C |

Product composition^C

| | |
|---------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/ProductComposition |
| Description | A product composition is the composed information of a product in terms of a specific component, in which such a component is also a product. |
| Sub Class Of | resourceODP:Composition |
| In Domain Of | associated with product model ^{OP} |
| Restriction | associated with product model ^{OP} <i>exactly</i> 1 Product composition ^C |

Product object^C

| | |
|---------------------|--|
| IRI | http://w3id.org/CE0N/ontology/product/ProductObject |
| Description | A product object is a physical object put into a market for sale, i.e. corresponding to the notion of an item, which conforms to the abstract idea of a product model. The product can be a thing that grows naturally or produced through some chemical or manufacturing processes. |
| Sub Class Of | resourceODP:PhysicalObject |
| In Domain Of | has product component ^{OP} modelled by ^{OP} |
| In Range Of | has product component ^{OP} |
| Restriction | modelled by ^{OP} <i>exactly</i> 1 Product object ^C |

Object Properties

associated with matter^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/associatedWithMatter |
| Description | associatedWithMatter intends to represent the matter to which a matter composition information regards to. |
| Domain | Matter composition ^c |
| Range | resourceODP:Matter |

associated with product model^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/associatedWithProductModel |
| Description | associatedWithProductModel intends to represent the matter to which a product composition information regards to. |
| Domain | Product composition ^c |
| Range | Product model ^c |

batch of products^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/batchOfProduct |
| Description | batchOfProduct intends to represent what is the model product of a batch of objects. |
| Domain | resourceODP:BatchOfObjects |
| Range | Product model ^c |

has composition^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/hasComposition |
| Description | hasComposition intends to represent that a product model or physical object can have composition information. |
| Domain | resourceODP:PhysicalObject ^c or Product model ^c |
| Range | resourceODP:Composition |

has product component^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/hasProductComponent |
| Description | hasProductComponent intends to represent that a product can have other product components. |
| Domain | Product object ^c |
| Range | Product object ^c |

modelled by^{op}

| | |
|--------------------|---|
| IRI | http://w3id.org/CE0N/ontology/product/modelledBy |
| Description | modelledBy intends to represent that product objects follow particular product models. |
| Domain | Product object ^c |
| Range | Product model ^c |

Datatype Properties

Composition quantity^{dp}

| | |
|--------------------|--|
| IRI | http://w3id.org/CE0N/ontology/product/compositionQuantity |
| Description | compositionQuantity intends to represent the quantity value of composed elements of a composition. The quantity value can be the number of a element or the percentage of a element. |
| Domain | resourceODP:Composition |
| Range | xsd:positiveInteger ^c or xsd:double ^c |

Annotation Properties

contributor^{ap}

| | |
|------------|---|
| IRI | http://purl.org/dc/terms/contributor |
|------------|---|

created^{ap}

| | |
|------------|---|
| IRI | http://purl.org/dc/terms/created |
|------------|---|

creator^{ap}

| | |
|------------|---|
| IRI | http://purl.org/dc/terms/creator |
|------------|---|

| | |
|--|---|
| description ^{ap} | |
| IRI | http://purl.org/dc/terms/description |
| license ^{ap} | |
| IRI | http://purl.org/dc/terms/license |
| title ^{ap} | |
| IRI | http://purl.org/dc/terms/title |
| preferred namespace prefix ^{ap} | |
| IRI | http://purl.org/vocab/vann/preferredNamespacePrefix |
| preferred namespace uri ^{ap} | |
| IRI | http://purl.org/vocab/vann/preferredNamespaceUri |
| covers requirements ^{ap} | |
| IRI | http://www.ontologydesignpatterns.org/schemas/cannotation-schema.owl#coversRequirements |

Namespaces

: <http://w3id.org/CEON/ontology/product/>
dcterms <http://purl.org/dc/terms/>
odp <http://www.ontologydesignpatterns.org/schemas/cannotationschema.owl#>
owl <http://www.w3.org/2002/07/owl#>
prov <http://www.w3.org/ns/prov#>
rdf <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
rdfs <http://www.w3.org/2000/01/rdf-schema#>
resourceODP <http://w3id.org/CEON/ontology/resourceODP/>
vann <http://purl.org/vocab/vann/>
xsd <http://www.w3.org/2001/XMLSchema#>

Legend

| | |
|----|--------------------------|
| c | Classes |
| op | Object Properties |
| dp | Datatype Properties |
| ap | Annotation Properties |