

Circular Economy Ontology Network (CEON) - Product Module

Metadata

IRI

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

Title

Circular Economy Ontology Network
(CEON) - Product Module

Creator

Huanyu Li

Contributor

Eva Blomqvist

Mikael Lindecrantz

Robin Keskisärkkä

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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}
exactly 1 [Matter composition](#)^c

Product model^c

IRI

<http://w3id.org/CEON/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/CEON/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}](#) *exactly* 1 [Product composition^c](#)

Product object^c

IRI <http://w3id.org/CEON/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}](#) *exactly* 1 [Product object^c](#)

Object Properties

associated with matter^{op}

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

has composition ^{op}

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

has product component^{op}

IRI <http://w3id.org/CEON/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/CEON/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/CEON/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/cpannotationschema.owl#coversRequirements
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Namespaces

:

<http://w3id.org/CE0N/ontology/product/>

dcterms

<http://purl.org/dc/terms/>

odp

<http://www.ontologydesignpatterns.org/schemas/cpannotationschema.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/CE0N/ontology/resourceODP/>

vann

<http://purl.org/vocab/vann/>

xsd

<http://www.w3.org/2001/XMLSchema#>

Legend

c	Classes
op	Object Properties
dp	Data type Properties
ap	Annotation Properties