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/0.3/

Version Info

0.3

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-ResrouceType-4, C11-2, C12-1, C13-3, E2-1, T8-3.

Classes

Actor [c]

IRI	http://w3id.org/CEON/ontology/actorODP/Actor

Resource Relation ^C

IRI	http://w3id.org/CEON/ontology/actorODP/ResourceRelation
Super Class Of	resourceODP:Composition

Process ^C

IRI	http://w3id.org/CEON/ontology/processODP/Process

Compliance ^C

IRI	http://w3id.org/CEON/ontology/product/Compliance
In Domain Of	complianceWith ^{op} hasCertificate ^{dp}
In Range Of	hasCompliance ^{op}

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 Domain Of

has product component ^{op}

In Range Of

associated with product model ^{op}
batch of products ^{op}
has product component ^{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

hasProductObjectComponent^{op}
modelled by^{op}

In Range Of

associatedWithProductObject^{op}
hasProductObjectComponent^{op}

Restriction   modelled by^{op} *exactly* 1 Product object^C

Product Object Composition ^C

IRI   http://w3id.org/CEON/ontology/product/ProductObjectComposition

Sub Class Of   resourceODP:Composition

In Domain Of   associatedWithProductObject^{op}

Restriction   associatedWithProductObject^{op} *exactly* 1 ProductObjectComposition^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 compopsition 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 product model to which a product compopsition information regards to.

Domain Product composition ^c

Range Product model ^c

associated with product object ^{op}

IRI http://w3id.org/CEON/ontology/product/associatedWithProductObject

Sub Property Of topObjectProperty ^{op}

Domain ProductObjectComposition ^c

Range Product object ^c

batch of products ^{op}

IRI http://w3id.org/CEON/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

compliance with ^{op}

IRI http://w3id.org/CEON/ontology/product/complianceWith

Domain Compliance ^c

composition of ^{op}

IRI http://w3id.org/CEON/ontology/product/compositionOf

Domain resourceODP:Composition

Range Product model ^c *or* Product object ^c *or* resourceODP:Matter ^c

has compliance ^{op}

IRI	http://w3id.org/CEON/ontology/product/hasCompliance
Domain	Product model ^c *or* actorODP:Actor ^c *or* Product object ^c *or* http://w3id.org/CEON/ontology/processODP/Process ^c
Range	Compliance ^c

has composition ^{op}

IRI	http://w3id.org/CEON/ontology/product/hasComposition
Description	hasComposition intends to represent that a product model or physical object can have compostition information.
Domain	Product model ^c *or* resourceODP:PhysicalObject ^c
Range	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 model ^c
Range	Product model ^c

has product object component ^{op}

IRI	http://w3id.org/CEON/ontology/product/hasProductObjectComponent
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
Domain	resourceODP:Composition
Range	xsd:double

country of assembly ^{dp}

IRI	http://w3id.org/CEON/ontology/product/countryOfAssembly
Sub Property Of	locationOfAssembly ^{dp}

country of manufacture ^{dp}

IRI	http://w3id.org/CEON/ontology/product/countryOfManufacture
Sub Property Of	locationOfManufacture ^{dp}

country of origin ^{dp}

IRI	http://w3id.org/CEON/ontology/product/countryOfOrigin
Sub Property Of	locationOfOrigin ^{dp}

has certificate ^{dp}

IRI   http://w3id.org/CEON/ontology/product/hasCertificate

Domain   Compliance ^c

location of assembly ^{dp}

IRI   http://w3id.org/CEON/ontology/product/locationOfAssembly

Super Property Of   countryOfAssembly ^{dp}

Domain   Product model ^c *or* Product object ^c

Range   xsd:string

location of manufacture ^{dp}

IRI   http://w3id.org/CEON/ontology/product/locationOfManufacture

Super Property Of   countryOfManufacture ^{dp}

Domain   Product model ^c *or* Product object ^c

Range   xsd:string

location of origin ^{dp}

IRI   http://w3id.org/CEON/ontology/product/locationOfOrigin

Super Property Of   countryOfOrigin ^{dp}

Domain   Product object ^c *or* Product model ^c

Range   xsd:string

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

Namespaces

:

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

actorODP

http://w3id.org/CEON/ontology/actorODP/

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/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