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	resourceODP:Matter ^C *or* Product model ^C *or* Product object ^C

has compliance ^{op}

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