# Circular Economy Ontology Network (CEON) - Statement Module

#### Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Statement Module

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Onto-DESIDE

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Version Iri

http://w3id.org/CEON/ontology/statement/0.2/

**Version Info** 

0.2

**Prior Version** 

0.1

**Preferred Namespace Prefix** 

ceon-statement

**Preferred Namespace Uri** 

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

**Description** 

A module to represent statements of CEON resources.

#### Classes

# Quantity Interval<sup>c</sup>

In Range Of

<u>hasChemicalSubstanceThresholdUsedByManufacturer</u>op

 $\underline{hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix}^{op}$ 

 $\frac{hasMassFractionForDemounting}{hasMassFractionForDisassembly}{^{op}}$ 

 $\underline{has Mass Fraction Of All Disclosed Chemical Substance}^{op}$ 

 $\underline{hasMassFractionOfDismantableComponentsForReuseAndRecycle}^{op}$ 

hasMassFractionOfPostConsumerRecycledMaterialsOutOfTheTotalProductMas

sop

 $\underline{has Mass Fraction Of Pre Consumer Recycled Materials Out Of The Total Product Mass}$ 

ор

 $\underline{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}^{op}$ 

 $\underline{has MassFraction Of Product Released Into Environment}^{op}$ 

 $\frac{hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass}{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}{}^{op}$ 

 $\frac{hasMassFractionOfReusedPartsOutOfTheTotalProduct^{op}}{hasPostConsumerRecycledMaterialCompositionThreshold}^{op}\\ \frac{hasPreConsumerRecycledMaterialCompositionThreshold}{op}$ 

<u>hasQuantityInterval</u>op

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op}$ 

**Named Individuals** 

<u>0ge-0le <sup>ni</sup></u>

<u>0gt-0.001le</u><sup>ni</sup>

<u>0gt-0.01le</u><sup>ni</sup>

0gt-0.1leni

<u>0gt-10le<sup>ni</sup></u>

0.1ge-0.1le<sup>ni</sup>

<u>1ge</u>ni

10gt-25leni

25gt-50leni

50gt-75le<sup>ni</sup>

75gt-95leni

95qt-99le<sup>ni</sup>

99gt-100le<sup>ni</sup>

Availability <sup>C</sup>

In Range Of hasAvailability op

Named Individuals

<u>publi</u>c<sup>ni</sup>

<u>secrectAgreement</u><sup>ni</sup>

# Demounting Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/DemountingStatemen

t

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of hasMassFractionForDemounting op

nt<sup>c</sup>

 $\underline{\mathsf{MFOfProductDesignedCleanlyRemovedFromFixedAssemblyStatement}^{\mathtt{C}}}$ 

# Disassembly Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/DisassemblyStateme

nt

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of <a href="hasMassFractionForDisassembly">hasMassFractionForDisassembly</a> op

Super Class Of MFOfProductDesignedCleanlyRemovedFromProductAssemblyAvailabilityState

<u>ment<sup>c</sup></u>

MFOfProductDesignedCleanlyRemovedFromProductAssemblyStatement<sup>C</sup>

#### Disclosed Chemical Subtance Statement<sup>c</sup>

ubtanceStatement

Sub Class Of <u>ProductCompositionStatement</u><sup>C</sup>

 $\frac{hasChemicalSubstanceThresholdUsedByManufacturer^{op}}{hasChemicalSubstanceThresholdUsedByManufacturer^{op}} \\ value \\ \underbrace{0gt-0.01le^c}_{or} \\ \frac{or}{hasChemicalSubstanceThresholdUsedByManufacturer^{op}}_{or} \\ value \\ \underbrace{0gt-0.01le^c}_{or} \\ or$ 

hasChemicalSubstanceThresholdUsedByManufacturer op value 1ge c

# Dismantling Statement<sup>C</sup>

nt

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of <a href="https://hasMassFractionOfDismantableComponentsForReuseAndRecycle">hasMassFractionOfDismantableComponentsForReuseAndRecycle</a> op

**Super Class Of** 

MFOfDismantlableComponentForReuseRecycledAvailabilityStatement<sup>C</sup>

MFOfDismantlableComponentForReuseRecycledStatement<sup>C</sup>

# Fraction Of Renewable Energy Availability Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/FractionOfRenewabl

eEnergyAvailabilityStatement

Sub Class Of RenewableEnergyStatement<sup>C</sup>

### Fraction Of Renewable Energy Statement<sup>c</sup>

eEnergyStatement

**Sub Class Of** 

RenewableEnergyStatement<sup>c</sup>

 $\underline{hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix}^{op}\ value$ 

Oge-Ole<sup>c</sup> or

 $\underline{hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix}^{op}\ value$ 

75qt-95le<sup>c</sup> or

hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix<sup>op</sup> value

25gt-50le<sup>c</sup> or

 $\underline{hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix}^{op}\ value$ 

50gt-75le<sup>c</sup> or

<u>hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix</u><sup>op</sup> value

99qt-100le<sup>c</sup> or

<u>hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix</u><sup>op</sup> value

10gt-25le<sup>c</sup> or

 $\underline{hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix}^{op}\ value$ 

Ogt-10le<sup>c</sup> or

hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix<sup>op</sup> value

95gt-99le<sup>c</sup>

#### Hazardous Substance Declaration Availability Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/HazardousSubstance

DeclarationAvailabiltityStatement

Sub Class Of ProductCompositionStatement<sup>C</sup>

#### Hazardous Substance Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/HazardousSubstance

Statement

Sub Class Of ProductCompositionStatement<sup>C</sup>

# Mf Of Dismantlable Component For Reuse Recycled Availability Statement C

IRI http://w3id.org/CEON/ontology/statement/MFOfDismantlableCo

mponent For Reuse Recycled Availability Statement

Sub Class Of <u>DismantlingStatement</u><sup>C</sup>

# Mf Of Dismantlable Component For Reuse Recycled Statement<sup>c</sup>

mponentForReuseRecycledStatement

**Sub Class Of** 

<u>DismantlingStatement</u><sup>©</sup>

 $\frac{hasMassFractionOfDismantableComponentsForReuseAndRecycle}{Oge-Ole^{\texttt{C}}\textit{ or } hasMassFractionOfDismantableComponentsForReuseAndRecycle}}$ 

<sup>op</sup> value <u>50gt-75le</u> cor

 $\frac{hasMassFractionOfDismantableComponentsForReuseAndRecycle}{10le}^{c} \ or \ \frac{op}{hasMassFractionOfDismantableComponentsForReuseAndRecycle}^{op}$ 

value <u>75gt-95le<sup>c</sup> or</u>

 $\underline{has Mass Fraction Of Dismantable Components For Reuse And Recycle}^{op} \ \textbf{value}$ 

99gt-100le<sup>c</sup> or

 $\underline{\text{hasMassFractionOfDismantableComponentsForReuseAndRecycle}}^{\text{op}} \text{value}$ 

25gt-50le<sup>c</sup> or

 $\underline{hasMassFractionOfDismantableComponentsForReuseAndRecycle}^{op}\ value$ 

95gt-99le<sup>c</sup> or

<u>hasMassFractionOfDismantableComponentsForReuseAndRecycle</u> op value

10gt-25le<sup>c</sup>

# Mf Of Post Consumer Recycled Material Content Availability Statement C

IRI http://w3id.org/CEON/ontology/statement/MFOfPostConsumerRe

cycledMaterialContentAvailabilityStatement

Sub Class Of RecycledMaterialStatement<sup>C</sup>

# Mf Of Post Consumer Recycled Material Content Statement<sup>C</sup>

cycledMaterialContentStatement

**Sub Class Of** 

<u>RecycledMaterialStatement</u><sup>c</sup>

 $\underline{has MassFraction Of PostConsumer Recycled Materials Out Of The Total Product Mas}$ 

s<sup>op</sup> value <u>95gt-99le</u>c or

 $\underline{has MassFraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Of PostConsumer Recycled Materials Out Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Out Of PostConsumer Recycled Materials Out Of The Total Product Masser Fraction Out Of The Total Product Mas$ 

s<sup>op</sup> value <u>0ge-0le</u> or

 $\underline{has Mass Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Of Post Consumer Recycled Materials Out Of The Total Product Masser Fraction Out Of The Out Of The Total Product Masser Fraction Out Out$ 

s<sup>op</sup> value <u>99gt-100le</u>c or

hasMassFractionOfPostConsumerRecycledMaterialsOutOfTheTotalProductMas

<u>s<sup>op</sup> value <u>75gt-95le</u><sup>c</sup> or</u>

 $\underline{\textbf{has} \textbf{MassFractionOfPostConsumerRecycledMaterialsOutOfTheTotalProductMas}}$ 

<u>s<sup>op</sup> value <u>10gt-25le</u>c or</u>

hasMassFractionOfPostConsumerRecycledMaterialsOutOfTheTotalProductMas

s<sup>op</sup> value <u>25gt-50le</u>c or

 $\underline{has MassFraction Of PostConsumer Recycled Materials Out Of The Total Product Mas}$ 

s<sup>op</sup> value <u>50gt-75le</u>c or

 $\underline{has MassFraction Of PostConsumer Recycled Materials Out Of The Total Product Mas}$ 

s<sup>op</sup> value <u>0gt-10le</u><sup>c</sup>

#### Mf Of Pre Consumer Recycled Material Content Availability Statement <sup>C</sup>

 $y cled {\tt MaterialContentAvailabilityStatement}$ 

Sub Class Of RecycledMaterialStatement<sup>C</sup>

# Mf Of Pre Consumer Recycled Material Content Statement<sup>c</sup>

ycledMaterialContentStatement

**Sub Class Of** 

RecycledMaterialStatement<sup>C</sup>

 $\underline{hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProductMass}$ 

<sup>op</sup> value <u>99gt-100le<sup>c</sup></u> or

hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProductMass

op value 10gt-25le c or

 $\underline{hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProductMass}$ 

op value <u>50gt-75le</u>c or

hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProductMass

op value <u>Ogt-10le<sup>c</sup></u> or

hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProductMass

op value <u>25gt-50le c</u> or

 $\underline{has Mass Fraction Of Pre Consumer Recycled Materials Out Of The Total Product Mass}$ 

<sup>op</sup> value <u>95gt-99le</u>c or

 $\underline{has MassFraction Of PreConsumer Recycled Materials Out Of The Total Product Mass}$ 

<sup>op</sup> value <u>75gt-95le<sup>c</sup></u> or

 $\underline{has MassFraction Of PreConsumer Recycled Materials Out Of The Total Product Mass}$ 

op value <u>Oge-Ole</u><sup>C</sup>

# Mf Of Product Designed Cleanly Removed From Fixed Assembly Availability Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/MFOfProductDesigne

 ${\tt dCleanlyRemovedFromFixedAssemblyAvailabilityStatement}$ 

Sub Class Of DemountingStatement<sup>C</sup>

#### Mf Of Product Designed Cleanly Removed From Fixed Assembly Statement C

 ${\tt dCleanlyRemovedFromFixedAssemblyStatement}$ 

**Sub Class Of** 

<u>DemountingStatement</u><sup>C</sup>

<u>hasMassFractionForDemounting</u> op value <u>0ge-0le</u> or

hasMassFractionForDemounting op value 25gt-50le or

<u>hasMassFractionForDemounting</u> op value <u>10gt-25le</u> or

<u>hasMassFractionForDemounting</u> op value <u>95gt-99le</u> or

 $\underline{\text{hasMassFractionForDemounting}}^{\text{op}} \, \text{value} \, \, \underline{\text{50gt-75le}}^{\text{c}} \, \textit{or}$ 

<u>hasMassFractionForDemounting</u> op value <u>75gt-95le</u> or

hasMassFractionForDemounting op value 99gt-100le or

hasMassFractionForDemounting op value Ogt-10le c

# Mf Of Product Designed Cleanly Removed From Product Assembly Availability Statement <sup>c</sup>

 ${\tt dCleanlyRemovedFromProductAssemblyAvailabilityStatement}$ 

Sub Class Of <u>DisassemblyStatement</u><sup>C</sup>

# Mf Of Product Designed Cleanly Removed From Product Assembly Statement<sup>C</sup>

dCleanlyRemovedFromProductAssemblyStatement

**Sub Class Of** 

<u>DisassemblyStatement<sup>c</sup></u>

hasMassFractionForDisassembly op value 50gt-75lec or hasMassFractionForDisassembly op value 10gt-25lec or hasMassFractionForDisassembly op value 25gt-50lec or hasMassFractionForDisassembly op value 75gt-95lec or hasMassFractionForDisassembly op value 95gt-99lec or hasMassFractionForDisassembly op value 99gt-100lec or hasMassFractionForDisassembly op value 0ge-0lec or hasMassFractionForDisassembly op value 0ge-0lec or hasMassFractionForDisassembly op value 0ge-10lec or hasMassFractionForDisassembly op value 0gt-10lec op value 0gt-10lec

### Mf Of Product Recycling At Similar Level Availability Statement C

ngAtSimilarLevelAvailabilityStatement

Sub Class Of RecyclingStatement<sup>C</sup>

# Mf Of Product Recycling At Similar Level Statement<sup>c</sup>

ngAtSimilarLevelStatement

**Sub Class Of** 

RecyclingStatement<sup>c</sup>

 $\frac{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{100le^{\texttt{c}}\ or\ hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{100le^{\texttt{c}}\ or\ hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{100le^{\texttt{c}\ or\ hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{100le^{$ 

 $\frac{hasMassFractionOfProductDesignedForRecyclingToOriginalInput^{op}\ value\ \underline{0gt-10le^c}\ or\ hasMassFractionOfProductDesignedForRecyclingToOriginalInput^{op}}{}$ 

value 25qt-50le<sup>c</sup> or

 $\frac{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{op} \ value \ \underline{10gt-25le}^c \ or \ \underline{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}^{op}$ 

value Oge-Ole cor

 $\frac{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}{op} \ value \ \underline{95gt-99le}^c \ or \ \underline{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}^{op}$ 

value 75gt-95le<sup>c</sup>

# Mf Of Product Released To Environment Availablity Statement <sup>C</sup>

dToEnvironmentAvailablityStatement

Sub Class Of ReleasedIntoEnvironmentStatement<sup>C</sup>

#### Mf Of Product Released To Environment Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/MFOfProductRelease

dToEnvironmentStatement

**Sub Class Of** 

ReleasedIntoEnvironmentStatement<sup>c</sup>

hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>0ge-0le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>99gt-100le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>75gt-95le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>0gt-10le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>25gt-50le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>10gt-25le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>50gt-75le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>95gt-75le</u> or hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup> value <u>95gt-99le</u> or

### Mf Of Recycled Material Content Availability Statement C

alContentAvailabilityStatement

Sub Class Of RecycledMaterialStatement<sup>C</sup>

# Mf Of Renewable Material Availability Statement <sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/MFOfRenewableMater

ialAvailabilityStatement

Sub Class Of SustainablyProducedRenewableMaterialStatement<sup>C</sup>

#### Mf Of Reused Part Availability Statement<sup>C</sup>

labilityStatement

Sub Class Of ReusedContentStatement<sup>C</sup>

#### Mass Fraction Of Disclosed Chemical Substance Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/MassFractionOfDisc

losedChemicalSubstanceStatement

**Sub Class Of** 

<u>ProductCompositionStatement</u><sup>c</sup>

hasMassFractionOfAllDisclosedChemicalSubstance op value Ogt-10le or hasMassFractionOfAllDisclosedChemicalSubstance op value 10gt-25le or hasMassFractionOfAllDisclosedChemicalSubstance op value Oge-0le or hasMassFractionOfAllDisclosedChemicalSubstance op value 25gt-50le or hasMassFractionOfAllDisclosedChemicalSubstance op value 99gt-100le or hasMassFractionOfAllDisclosedChemicalSubstance op value 95gt-99le or hasMassFractionOfAllDisclosedChemicalSubstance op value 75gt-95le or hasMassFractionOfAllDisclosedChemicalSubstance op value 50gt-75le or hasMassFractionOfAllDisclosedChemicalSubstance op value 50gt-75le or

# Mass Fraction Of Recycled Material Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/MassFractionOfRecy

cledMaterialStatement

**Sub Class Of** 

RecycledMaterialStatement<sup>c</sup>

 $\underline{hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass}^{op}\ value\ \underline{95gt-}$ 99le or hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass op

value 10gt-25le<sup>c</sup> or

hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup> value <u>25gt-</u> 50le<sup>c</sup> or hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup>

value 50gt-75le<sup>c</sup> or

hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup> value 0qt- $\underline{10le}^{\texttt{C}} \textit{or} \\ \underline{hasMassFractionOfRecycledMaterialsOutOfTheT} \\ otal ProductMass^{op}$ 

hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup> value 75qt-95le or hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass op

value 99gt-100le<sup>c</sup>

#### Mass Fraction Of Renewable Material Statement C

IRI http://w3id.org/CEON/ontology/statement/MassFractionOfRene

wableMaterialStatement

**Sub Class Of** 

<u>SustainablyProducedRenewableMaterialStatement</u><sup>C</sup>

hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass<sup>op</sup> value

10gt-25le<sup>c</sup> or

 $\underline{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}^{op}\ value$ 

25qt-50le<sup>c</sup> or

 $\underline{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}^{op}\ value$ 

75gt-95le<sup>c</sup> or

 $\underline{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMas}s^{op}\ value$ 

Ogt-10le<sup>c</sup> or

 $\underline{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}^{op} \ value$  $\underline{\tt Oge-Ole^{\tt C}} \ or \ \underline{\tt hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}$ 

op value <u>95qt-99le</u> or

hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass<sup>op</sup> value

99gt-100le<sup>c</sup> or

 $\underline{hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass}^{op}\ value$ 

50qt-75le<sup>C</sup>

#### Mass Fraction Of Reused Part Statement C

IRI http://w3id.org/CEON/ontology/statement/MassFractionOfReus

edPartStatement

**Sub Class Of** 

ReusedContentStatement<sup>C</sup>

hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 75gt-95le<sup>c</sup> or hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 50gt-75le<sup>c</sup> or hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value <u>0ge-0le</u> or hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 99gt-100le<sup>c</sup> or hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 10gt-25le<sup>c</sup> or hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value <u>0gt-10le</u> or

hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 25gt-50le<sup>c</sup> or

hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup> value 95gt-99le<sup>c</sup>

Pc Availability Statement <sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/PCAvailabilityStat

ement

**Sub Class Of** <u>ProductCompositionStatement</u><sup>C</sup>

Pcds Statement <sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/PCDSStatement

**Sub Class Of** Statement<sup>C</sup>

**Super Class Of** 

<u>DemountingStatement<sup>C</sup></u> <u>DisassemblyStatement<sup>C</sup></u> <u>DismantlingStatement</u><sup>c</sup> <u>ProductCompositionStatement</u><sup>c</sup>

RecycledMaterialStatement<sup>C</sup> RecyclingStatement<sup>c</sup>

ReleasedIntoEnvironmentStatement<sup>C</sup> RenewableEnergyStatement<sup>c</sup> ReusedContentStatement<sup>C</sup>

<u>SustainablyProducedRenewableMaterialStatement</u><sup>C</sup>

WaterReuseOrRecirculationStatement<sup>C</sup>

Post Consumer Recycled Material Composition Availability Statement C

IRI http://w3id.org/CEON/ontology/statement/PostConsumerRecycl

edMaterialCompositionAvailabilityStatement

**Sub Class Of** RecycledMaterialStatement<sup>C</sup>

Post Consumer Recycled Material Composition Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/PostConsumerRecycl

edMaterialCompositionStatement

**Sub Class Of** <u>RecycledMaterialStatement</u><sup>C</sup>

Restriction  $\underline{hasPostConsumerRecycledMaterialCompositionThreshold}^{op}\ value$ 

PostConsumerRecycledMaterialCompositionStatement<sup>C</sup>

Pre Consumer Recycled Material Composition Availability Statement C

IRI http://w3id.org/CEON/ontology/statement/PreConsumerRecycle

dMaterialCompositionAvailabilityStatement

**Sub Class Of** RecycledMaterialStatement<sup>C</sup> Pre Consumer Recycled Material Composition Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/PreConsumerRecycle

dMaterialCompositionStatement

Sub Class Of RecycledMaterialStatement<sup>C</sup>

<u>PreConsumerRecycledMaterialCompositionStatement</u><sup>c</sup>

Product Composition Certification Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/ProductComposition

CertificationStatement

Sub Class Of ProductCompositionStatement<sup>C</sup>

Product Composition Statement <sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/ProductComposition

Statement

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of

 $\frac{has Chemical Substance Threshold Used By Manufacturer}{has Mass Fraction Of All Disclosed Chemical Substance} op$ 

**Super Class Of** 

<u>DisclosedChemicalSubtanceStatement<sup>c</sup></u>

<u>HazardousSubstanceDeclarationAvailabilityStatement</u><sup>c</sup>

HazardousSubstanceStatement<sup>c</sup>

<u>MassFractionOfDisclosedChemicalSubstanceStatement</u><sup>c</sup>

PCAvailabilityStatement<sup>C</sup>

 $\frac{Product Composition Certification Statement^{\texttt{C}}}{Product Composition Validation Statement^{\texttt{C}}}$ 

Product Composition Validation Statement <sup>C</sup>

ValidationStatement

Sub Class Of ProductCompositionStatement<sup>C</sup>

Recycled Material Statement<sup>C</sup>

IRI http://w3id.org/CEON/ontology/statement/RecycledMaterialSt

atement

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of

 $\underline{has MassFraction Of PostConsumer Recycled Materials Out Of The Total Product Mas}$ 

 $s^{op}$ 

 $\underline{has MassFraction Of PreConsumer Recycled Materials Out Of The Total Product Mass}$ 

op

 $\frac{hasMassFractionOfRecycledMaterialSOutOfTheTotalProductMass}{hasPostConsumerRecycledMaterialCompositionThreshold}{op} \\ \frac{hasPreConsumerRecycledMaterialCompositionThreshold}{op} \\ \frac{h$ 

**Super Class Of** 

MFOfPostConsumerRecycledMaterialContentAvailabilityStatement<sup>C</sup>

MFOfPostConsumerRecycledMaterialContentStatement<sup>C</sup>

MFOfPreConsumerRecycledMaterialContentAvailabilityStatement<sup>C</sup>

 $\frac{MFOfPreConsumerRecycledMaterialContentStatement}{MFOfRecycledMaterialContentAvailabilityStatement}^{\mathtt{C}}$ 

<u>MassFractionOfRecycledMaterialStatement</u><sup>c</sup>

<u>PostConsumerRecycledMaterialCompositionAvailabilityStatement</u><sup>©</sup>

<u>PostConsumerRecycledMaterialCompositionStatement</u><sup>c</sup>

<u>PreConsumerRecycledMaterialCompositionAvailabilityStatement</u><sup>C</sup>

PreConsumerRecycledMaterialCompositionStatement<sup>C</sup>

# Recycling Statement<sup>C</sup>

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of hasMassFractionOfProductDesignedForRecyclingToOriginalInput<sup>op</sup>

**Super Class Of** 

MFOfProductRecyclingAtSimilarLevelAvailabilityStatement<sup>C</sup>

MFOfProductRecyclingAtSimilarLevelStatement<sup>C</sup>

# Released Into Environment Statement<sup>C</sup>

 ${\tt nmentStatement}$ 

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of hasMassFractionOfProductReleasedIntoEnvironment<sup>op</sup>

**Super Class Of** 

MFOfProductReleasedToEnvironmentAvailablityStatement<sup>C</sup>

 $\underline{\mathsf{MFOfProductReleasedToEnvironmentStatement}}^{\mathtt{C}}$ 

Renewable Energy Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/RenewableEnergySta

tement

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix<sup>op</sup>

**Super Class Of** 

<u>FractionOfRenewableEnergyAvailabilityStatement</u><sup>c</sup>

<u>FractionOfRenewableEnergyStatement<sup>C</sup></u>

Reused Content Statement C

http://w3id.org/CEON/ontology/statement/ReusedContentState

ment

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup>

Super Class Of MFOfReusedPartAvailabilityStatement<sup>C</sup>

MassFractionOfReusedPartStatement C

Statement <sup>C</sup>

Sub Class Of Entity<sup>c</sup>

**In Domain Of** 

statementAbout<sup>op</sup> statementValue<sup>dp</sup>

Super Class Of PCDSStatement<sup>C</sup>

Sustainably Produced Renewable Material Statement<sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/SustainablyProduce

dRenewableMaterialStatement

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of <a href="hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass">hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass</a> op

**Super Class Of** 

MFOfRenewableMaterialAvailabilityStatement<sup>C</sup> MassFractionOfRenewableMaterialStatement<sup>C</sup>

Vf Of Reduction Direct Water Availability Statement <sup>c</sup>

tWaterAvailabilityStatement

Sub Class Of WaterReuseOrRecirculationStatement<sup>C</sup>

#### Vf Of Reduction Direct Water Statement<sup>c</sup>

http://w3id.org/CEON/ontology/statement/VFOfReductionDirec

tWaterStatement

**Sub Class Of** 

WaterReuseOrRecirculationStatement<sup>c</sup>

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value <u>75gt-95le<sup>c</sup> or</u>

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value 10gt-25le c or

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value <u>0gt-10le<sup>c</sup> or</u>

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value 99qt-100le c or

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value 95qt-99le<sup>c</sup> or

 $\underline{hasVolumeFractionOfReductionOfDirectWaterConsumptionUsedInProduction}^{op}$ 

value 50gt-75le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

value <u>25qt-50le <sup>c</sup> or</u>

hasVolumeFractionOfReductionOfDirectWaterConsumptionUsedInProduction<sup>op</sup>

value <u>0ge-0le</u><sup>c</sup>

### Vf Of Reused Recirculated Water Availability Statement <sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/VFOfReusedRecircul

atedWaterAvailabilityStatement

Sub Class Of WaterReuseOrRecirculationStatement<sup>C</sup>

# Vf Of Reused Recirculated Water Statement C

atedWaterStatement

**Sub Class Of** 

<u>WaterReuseOrRecirculationStatement</u><sup>c</sup>

 $\underline{\text{hasVolumeFractionOfReusedOrRecirculatedWaterUsedInProduction}}^{\text{op}} \ \text{value}$ 

Ogt-10le<sup>c</sup> or

 $\underline{\text{hasVolumeFractionOfReusedOrRecirculatedWaterUsedInProduction}}^{op} \ \textbf{value}$ 

75gt-95le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op} \ value$ 

25gt-50le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op} \ value$ 

Oge-Ole c or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op}\ value$ 

99gt-100le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op} \ value$ 

50gt-75le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op} \ value$ 

10qt-25le<sup>c</sup> or

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op} \ value$ 

95gt-99le<sup>c</sup>

Validation <sup>c</sup>

IRI http://w3id.org/CEON/ontology/statement/Validation

In Range Of has Validation op

Named Individuals

certified ni

validatedByThirdParty<sup>ni</sup>

Water Reuse Or Recirculation Statement<sup>c</sup>

http://w3id.org/CEON/ontology/statement/WaterReuseOrRecirc

ulationStatement

Sub Class Of PCDSStatement<sup>C</sup>

In Domain Of

 $\underline{has Volume Fraction Of Reduction Of Direct Water Consumption Used In Production}^{op}$ 

 $\underline{has Volume Fraction Of Reused Or Recirculated Water Used In Production}^{op}$ 

**Super Class Of** 

<u>VFOfReductionDirectWaterAvailabilityStatement</u><sup>c</sup>

<u>VFOfReductionDirectWaterStatement</u><sup>C</sup>

<u>VFOfReusedRecirculatedWaterAvailabilityStatement</u><sup>c</sup>

<u>VFOfReusedRecirculatedWaterStatement</u><sup>c</sup>

Entity <sup>C</sup>

http://www.w3.org/ns/prov#Entity

Super Class Of resourceODP:Resource

<u>Statement<sup>c</sup></u>

Role <sup>C</sup>

IRI http://www.w3.org/ns/prov#Role

Super Class Of <a href="http://w3id.org/CEON/ontology/actorODP/Role">http://w3id.org/CEON/ontology/actorODP/Role</a>

# **Object Properties**

has availability op

Range <u>Availability</u><sup>C</sup>

has chemical substance threshold used by manufacturer op

IRI http://w3id.org/CEON/ontology/statement/hasChemicalSubstan

ceThresholdUsedByManufacturer

Sub Property Of <a href="hasQuantityInterval">hasQuantityInterval</a> op

**Domain** ProductCompositionStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has fraction of renewable energy out of the total production energy mix op

IRI http://w3id.org/CEON/ontology/statement/hasFractionOfRenew

ableEnergyOutOfTheTotalProductionEnergyMix

Sub Property Of hasQuantityInterval op

**Domain** RenewableEnergyStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction for demounting op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionFor

Demounting

Sub Property Of hasQuantityInterval op

DemountingStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction for disassembly op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionFor

Disassembly

Sub Property Of hasQuantityInterval op

<u>DisassemblyStatement</u><sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of all disclosed chemical substance op

llDisclosedChemicalSubstance

Sub Property Of hasQuantityInterval op

**Domain** ProductCompositionStatement<sup>C</sup>

has mass fraction of dismantable components for reuse and recycle op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionOfD

ismantableComponentsForReuseAndRecycle

Sub Property Of hasQuantityInterval op

DismantlingStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of post consumer recycled materials out of the total product mass

ор

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionOfP

ostConsumerRecycledMaterialsOutOfTheTotalProductMass

Sub Property Of hasQuantityInterval op

Domain RecycledMaterialStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of pre consumer recycled materials out of the total product mass op

reConsumerRecycledMaterialsOutOfTheTotalProductMass

Sub Property Of hasQuantityInterval op

Domain RecycledMaterialStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of product designed for recycling to original input op

 $roduct Designed For Recycling To 0 \verb|riginalInput|$ 

Sub Property Of hasQuantityInterval op

Domain RecyclingStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of product released into environment op

roductReleasedIntoEnvironment

Sub Property Of hasQuantityInterval op

Domain ReleasedIntoEnvironmentStatement<sup>C</sup>

has mass fraction of recycled materials out of the total product mass op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionOfR

ecycledMaterialsOutOfTheTotalProductMass

Sub Property Of hasQuantityInterval op

Domain RecycledMaterialStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of renewable materials out of the total product mass op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionOfR

enewableMaterialsOutOfTheTotalProductMass

Sub Property Of hasQuantityInterval op

<u>Domain</u> <u>SustainablyProducedRenewableMaterialStatement</u><sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has mass fraction of reused parts out of the total product op

IRI http://w3id.org/CEON/ontology/statement/hasMassFractionOfR

eusedPartsOutOfTheTotalProduct

Sub Property Of hasQuantityInterval op

Domain ReusedContentStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has post consumer recycled material composition threshold op

ycledMaterialCompositionThreshold

Sub Property Of <u>hasQuantityInterval</u>op

Domain RecycledMaterialStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has pre consumer recycled material composition threshold op

IRI http://w3id.org/CEON/ontology/statement/hasPreConsumerRecy

 ${\tt cledMaterialCompositionThreshold}$ 

Sub Property Of hasQuantityInterval op

Domain RecycledMaterialStatement<sup>C</sup>

# has quantity interval op

IRI

http://w3id.org/CEON/ontology/statement/hasQuantityInterva

#### **Super Property Of**

- hasChemicalSubstanceThresholdUsedByManufacturer op
- hasFractionOfRenewableEnergyOutOfTheTotalProductionEnergyMix<sup>op</sup>
- <u>hasMassFractionForDemounting</u> op
- hasMassFractionForDisassembly op
- hasMassFractionOfAllDisclosedChemicalSubstanceop
- hasMassFractionOfDismantableComponentsForReuseAndRecycle<sup>op</sup>
- <u>hasMassFractionOfPostConsumerRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup></u>
- hasMassFractionOfPreConsumerRecycledMaterialsOutOfTheTotalProduc tMass<sup>op</sup>
- $\bullet \ \underline{hasMassFractionOfProductDesignedForRecyclingToOriginalInput}^{op}\\$
- <u>hasMassFractionOfProductReleasedIntoEnvironment</u>op
- hasMassFractionOfRecycledMaterialsOutOfTheTotalProductMass<sup>op</sup>
- hasMassFractionOfRenewableMaterialsOutOfTheTotalProductMass<sup>op</sup>
- hasMassFractionOfReusedPartsOutOfTheTotalProduct<sup>op</sup>
- hasPostConsumerRecycledMaterialCompositionThreshold op
- hasPreConsumerRecycledMaterialCompositionThreshold op
- hasVolumeFractionOfReductionOfDirectWaterConsumptionUsedInProduct ion<sup>op</sup>
- hasVolumeFractionOfReusedOrRecirculatedWaterUsedInProduction<sup>op</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

# has validation op

Range Validation<sup>C</sup>

has volume fraction of reduction of direct water consumption used in production op

fReduction Of Direct Water Consumption Used In Production

Sub Property Of hasQuantityInterval op

Domain WaterReuseOrRecirculationStatement<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/quantity#QuantityInterval">http://w3id.org/CEON/ontology/quantity#QuantityInterval</a>

has volume fraction of reused or recirculated water used in production op

 $fReused {\tt OrRecirculatedWaterUsedInProduction}$ 

Sub Property Of hasQuantityInterval op

Domain WaterReuseOrRecirculationStatement<sup>C</sup>

statement about op

Domain Statement<sup>C</sup>

# **Datatype Properties**

available end date dp

Range xsd:date

available start date dp

http://w3id.org/CEON/ontology/statement/availableStartDate

Range xsd:date

is pcds statement true dp

http://w3id.org/CEON/ontology/statement/isPCDSStatementTru

е

Range xsd:boolean

statement value dp

IRI http://w3id.org/CEON/ontology/statement/statementValue

Domain Statement<sup>C</sup>

# **Annotation Properties**

issued <sup>ap</sup>

IRI http://purl.org/dc/terms/issued

publisher ap

http://purl.org/dc/terms/publisher

has unit<sup>ap</sup>

http://qudt.org/schema/qudt/hasUnit

numeric value ap

IRI http://qudt.org/schema/qudt/numericValue

has maximal value included of interval ap

has minimal value included of interval ap

has minimal value not included of interval ap

IRI http://w3id.org/CEON/ontology/quantity#hasMinimalValueNotI

ncludedOfInterval

Pcd Smapping ap

IRI http://w3id.org/CEON/ontology/statement/PCDSmapping

# Namespaces

```
http://w3id.org/CEON/ontology/statement/
dcterms
    http://purl.org/dc/terms/
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

С	Classes
ор	Object Properties
dp	Datatype Properties
ар	Annotation Properties