To: National Standardisation Bodies

Secretary Enquiry
CEN/CLC European Standard
prEN 45558 - General method to declare the use of critical raw materials in energy related products

National Standardisation Bodies are invited to comment on the document. Comments can be considered only if form sheet (FormComments.doc) is used.

National Standardisation Bodies shall upload their comments, as a reply to this document on the Collaboration tool, no later than 2017-11-13.
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Foreword

The dual logo CEN-CENELEC standardization deliverables, in the numerical range of 45550 – 45559, have been developed under standardization request M/543 of the European Commission.

Topics covered in the above standardization request are product durability, reparability, reusability, upgradability, recyclability, recycled content, ability to remanufacture, product lifespan, and critical raw material together with associated communication. While various topics in the context of material efficiency are covered in these CEN-CENELEC deliverables, other subjects of material efficiency are not covered, despite their potential impact on material efficiency. Examples of topics not covered include for instance renewable resources.

The standardization deliverables are horizontal in nature and describe or define fundamental principles, concepts, terminology or technical characteristics, relevant to a number of technical committees.

The primary addressee of most of these standardization deliverables are product-specific technical committees. For this specific standard this is different, where the users will be the broad supply chain of energy-related products.

Introduction

At the core of circularity and resource efficiency are the so-called raw materials. Raw materials are crucial to Europe’s economy and essential to maintaining and improving our quality of life. Securing reliable and unhindered access to certain raw materials is a growing concern within the EU and across the globe. To address this challenge, the European Commission has created a list of critical raw materials. Critical raw materials (CRMs) combine a high economic importance to the EU with a high risk associated with their supply that are defined according to an objective methodology [22]. Examples of critical raw materials include rare earth elements, cobalt, niobium, etc. The CRM list is regularly updated: the latest update, published in 2017, contains 27 CRMs [1].

The availability of information on the use of critical raw materials in energy-related products is intended at improving exchange of information between manufacturers and recyclers, as to promote recycling of these materials.

CRMs are identified as a priority area of the European Commission’s Circular Economy Action Plan COM(2015) 614/2. Altogether, the list of critical raw materials and related initiative (including this one) are expected to:

- Contribute to the implementation of the EU industrial policy and strengthen industrial competitiveness
- Stimulate production of critical raw materials (including from secondary sources) and the launch of new mining activities in the EU and
- Monitor issues on critical raw materials to identify priority actions (related for example to trade, research & innovation, circular economy)

As the information on the use of the critical raw materials in energy-related products by member states and industry is still very scarce, efforts need to be made to acquire such a knowledge. The objective of this European Standard is to provide general methodology for declaration of the use of critical raw materials in energy-related products in support of the implementation of the Raw Materials Initiative by the EU (SWD(2014) 171 final).

This European Standard specifies a procedure for the declaration of regulated and non-regulated CRMs. It will be, therefore, essential in supporting manufacturers of energy-related products to obtain
information and report on the use of certain CRMs needed to comply with specific requirements in product specific legislations in the future.

This standard is linked to another standard in this range, namely prEN 45555 - General methods for assessing the recyclability and recoverability of energy-related products, where the information to be gathered on the CRMs with the support of the present standard can be used by the recycling operators on the recovery of CRMs from energy related products.

1 Scope

This European Standard specifies the basis for definition of a procedure, content and form relating to declarations on the use of critical raw materials in energy-related products. Process chemicals and emissions during product manufacturing are not in the scope of this standard and also packaging is not in scope of this standard.

The main intended use of this European Standard is to provide a means for which information on the use of CRMs can be exchanged up and down the supply chain that:

- Allows organizations to assess energy-related products against the use of critical raw materials, as to answer to compliance requirements in European legislation
- Allows organizations to use this information in support of the collection or recycling process of energy-related products to obtain/extract these critical raw materials
- Allows organizations to use this information in the life-cycle management across all product life cycle phases, by reducing or replacing certain CRMs by non-critical materials
- Support policy makers in the preparation of policy around the use or import of critical raw materials, e.g. tax incentive

Potential users of this standard are any public, private and social enterprises involved in the treatment of waste of energy-related products as well as manufacturers of energy-related products (including SME’s) and other players involved in the product supply chain, other than commercial driven players.

Last, it is also relevant to European surveillance and trade authorities as well as European policy makers.

This standard does not include product-specific provisions, and instead, it can be applied directly to any energy-related type of product. It is intended that product-specific provisions that are related to CRM will be fully based on and use the principles and procedures of this standard.

This standard does not override, or in any way change, legally required critical raw materials information, claims or labelling, or any other applicable legal requirements.

This European Standard proposes a standardised format for reporting use of critical raw materials in energy-related products by applying the IEC 62474 materials declaration standard. It however, does not provide or determine any specific method or tool to capture critical raw material data. Organizations have the flexibility to choose the most appropriate method/tool to capture declaration data of critical raw materials without compromising data utility and quality.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.
3 Terms and definitions and Abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

3.1.1 critical raw material

CRM

material which, according to a defined classification methodology, are economically important, and have a high-risk associated with their supply

Note 1 to entry: for the purpose of this standard, critical raw materials are the ones listed in annex 1 of "[COM(2017) 490 final]: COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on the 2017 list of Critical Raw Materials for the EU". Future updates to this list also apply.

3.1.2 component

part of a product that cannot be taken apart without destruction or impairment of its intended use

[source IEC 62542 definition 3.3, modified to cover more than "electronic component"]

3.1.3 declarable substance

substance that meets specified criteria for reporting

Note 1 to entry: criteria for declarable substances within the IEC 62474 DSL are specified in clause 5 of IEC 62474 Edition 2


3.1.4 declarable substance

DS

substance that meets specified criteria for reporting

Note 1 to entry: criteria for declarable substances within the IEC 62474 DSL are specified in clause 5 of IEC 62474 Edition 2

3.1.5
declarable substance group
DSG
substance group that meets specified criteria for reporting
Note 1 to entry: criteria for declarable substance groups within the IEC 62474 DSL are specified in clause 5 of IEC 62474 Edition 2

3.1.6
declarable substance list
DSL
list of declarable substances and/or declarable substance groups each with a reporting threshold and reportable application (s) which require reporting when contained at or above its maximum threshold value and reportable application within a product, product part or material

energy-related products
ErP
products covered by the EcoDesign Directive, 2009/125/EC
Note 1 to Entry: For certain product types, also consumables, accessories and packaging are included

3.1.7
material
substance or mixture of substances within a product or product part

3.1.8
material declaration
declaration of the presence of certain substance or substance group contained within a product, product part, or material as applicable
Note 1 to entry: the declaration might be quantitative, where the amount of the declared substance or substance group is provided OR it might qualitative, where only the presence or absence of the declared substance or substance group is provided

3.1.9
product
any goods or service
Note 1 to entry: This definition includes components as they may be considered products under the Eco Design Directive (e.g. motor and fans)
Note 2 to entry: In the context of this standard, the definition of product is limited to the product category "hardware" according to ISO 9000:2005
3.1.10

**product part**

sub-unit of a product or another (product) part

Note 1 to entry: This is a recursive definition

Note 2 to entry: If a standard product part e.g. a cable of 1m length is declared as product part only portions of it might be physically present in the product

[SOURCE: EN 62474: 2012, definition 3.9, modified by addition of Note 2 to entry]


3.1.11

**reporting threshold level**

concentration limit at or above which the presence of a declarable substance in a material or product is declared if declaration of the declarable substance is mandatory, or if it is agreed on to be declared

Note 1 to entry: mandatory declaration can be according to legislation and/or according to specification in the IEC 62474 Database or equivalent

[SOURCE: EN 62474: 2012, definition 3.12, modified]

[SOURCE: IEC 62474 Edition 2 (111/459/CDV), definition 3.21, modified]

3.1.12

**Regulated critical raw material**

Regulated CRM

Critical Raw Material for which specific requirements have been enforced

Note 1 to Entry: Not all CRMs are regulated CRM

Note 2 to Entry: In EU, regulated CRM are the subject of implementing measures under the Eco-design Directive 2009/125/EC

3.1.13

**substance**

chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the declarable substance or changing its composition

[SOURCE: Globally Harmonized System of Classification and Labelling (GHS):2003, Chapter 1.2, Definitions and Abbreviations]

3.1.14

**substance group**

two or more substances, that share at least one chemical sub-structure, or chemical or physical property under a generic name


3.2 Abbreviations

The following abbreviations have been used in this document:
4 Material declaration according to the IEC 62474 standard

The process of tracking substances or groups of substances like critical raw materials used in products can be complex, especially for products with many parts and long supply chains, such as it is the case for electrical and electronic and the other energy-related products. Significant issues around the exchange of the information through the supply chains can be expected in case there is no harmonized ways to provide such information.

To facilitate the collection and declaration of information on the use of substances in product (parts), IEC developed the standard IEC 62474 on material declaration. This standard contains:

- A standardized list of regulated substances with standardized names to avoid misspelling (called declarable substances list)
- A standardized format for declaration to ensure that declarations from different suppliers can easily be understood and exchanged among each other

In principle, the IEC 62474 standard covers only Electric and Electrical Equipment (EEE). This means that regulated substances not found in EEE will not be placed in the IEC 62474 declarable substances list. However, the IEC 62474 declaration format and its process to transfer and aggregate information from the supply chain can be also applied to different substances lists, as long as they follow the same organization scheme as in the IEC 62474 list. This implies that substances used in any product, including energy-related products, can be declared using the IEC 62474 standard.

The IEC 62474 standard is not specifically linked to the reporting of hazardous substances. Rather, it is developed to manage declaration of regulated substances, independent from the reason for them to be regulated. Therefore, the IEC 62474 standard is perfectly able to manage CRMs, which are critical from the economic and supply risk perspective, but are not necessarily hazardous.

Also, the formats and processes of IEC 62474 standard can be applied to a list containing only some substances of the IEC declarable substances list. This is important in case the user is interested in only certain types of substances like CRMs. In the case of CRMs more specifically, the IEC 62474 list will contain only the regulated CRMs.

The flexibility of the IEC 62474 declaration format enables players in the supply chain to be able to effectively associate the CRM to the product or to a specific part of that product. For instance, one can declare a personal computer (product) with a motherboard (product part 1) with a coin cell battery (part of product part 1) that contains a CRM. This flexibility enables users to be able to report on different or multiple levels of the product (part). For the scope of this Standard, IEC 62474 shall be used as the format to share information on the use of CRMS in energy-related products.

Note 1: Other standards could be used (e.g. [9]), provided that they have equivalent declaration format to IEC 62474

Note 2: The data to be reported is often likely to be based on engineering judgment, supplier material declarations, and/or sampling and testing
5 Declaration of regulated CRMs

For regulated CRMs a material declaration providing information on the specific CRM specified in the legislation shall be provided.

The material declaration format shall meet the requirements specified in IEC 62474 for the applicable CRMs.

The declaration of regulated CRMs shall be done according to the requirements of the legislation. Typical requirements are:

- Reporting of the name of the substance or substance group as required in the legislation
- Reporting of substance or substance group amount as required in the legislation
- Reporting the location of the substance in the product if required by the legislation
- Exemptions, if applicable

Manufacturers should use the IEC 62474 standard to:

- List the declarable CRMs according to the names used in the database to ensure the same names of substances are used along the supply chain
- Declare the CRMs according to the XML format to ensure compatibility of the declarations along the supply chain, thus allowing automatic aggregation of information from different suppliers

Note: see http://std.iec.ch/IEC62474 for more information

6 Assessing and declaring the use of non-regulated CRMs

Even if a particular CRM is not regulated, companies may still need to collect CRM data, for example to provide information required by Ecolabels. The IEC 62474 standard can also be used to collect this kind of company specific information. However, as non-regulated CRMs are not automatically included in the IEC Declarable Substance List, the manufacturer will need to create its own substance list for the declaration purpose.

Voluntarily collected information can vary on level of details and thoroughness. When collecting information on non-regulated CRMs, it is up to the manufacturer to decide what kind of information they want to collect and what are the minimum requirements for the information (e.g. does the collection covers all CRMs or just part of them, what is the threshold to be reported, is the information collected on product or on component level). Manufacturers shall create and assess the minimum data (quality) requirements in order to make sure that the collected data is sufficient to fulfill their needs.

Relevant information to be assessed and collected on CRMs in order to support activities such as recycling or (technology / material) substitution are:

- Business Information (e.g. name, address, responsible person and other administrative details of the party preparing the declaration)
- Product Information (e.g. product ID, name, category, weight, etc.)
- Reporting of the name of the substance or substance group
- Definition of a (minimum) reporting threshold for the reporting of the substance or substance group
- Reporting of substance or substance group amount
• Reporting the location of the substance in the product if required

Note 1: If tools are used to facilitate collection of information of non-regulated CRMs, it is the manufacturer’s responsibility to make sure that the selected tool is able to deal with all defined requirements (e.g. specific list of substances and substance groups, their threshold, etc.)

Note 2: Manufacturers should take care of contracts through the supply chain in order to facilitate the delivery of the information

6.1 Considerations on the declarations of non-regulated CRMs requirements

6.1.1 Name of the substance / substance group

Declaration of CRMs may be done either on substance or substance group level. If the declaration is required on substance level, the list of all specific substances needs to be generated. IUPAC or CAS rules for naming should be used and every substance should be accompanied with unique CAS number.

Note 1: Example of substance and substance groups: for the listed CRMs “light rare earth”, several substances groups can be identified, for instance Neodymium and its compounds, Praseodymium and its compounds, Lanthanum and its compounds, etc. Taking Neodymium and its compounds as example, substance groups of Neodymium could be e.g. Neodymium Oxides, Neodymium Fluorides, Neodymium Chlorides, Neodymium Bromides, Neodymium Aluminium Borate, etc. An example of a substance within this substances group is e.g. Neodymium (III) chloride with CAS nr. 10024-93-8

Note 2: Often it is only specific CRM substances that are used in some ErP applications. In such cases it is adequate to only require information on these relevant CRM substance(s)

Note 3: CRMs can be used in very different applications. Therefore properties and used amounts may vary based on the technology/application. In such cases requesting information on substance group level is probably not useful as different substances in that group are declared together

6.1.2 Location of the CRM in the product

CRMs may be clustered in one specific component or they can be spread throughout different components in the product. When it is relevant to know the location of the CRM, the location where the substance is found in the product should be identified.

Complex products consist of a number of, often, specialized components, that differ due to their function and their (material) composition. CRMs are often concentrated in certain specific components.

Components can be either product specific or suitable for a wide range of products. In case of the latter, CRMs can be found in many product types as part of such specific component.

6.1.3 Amount of the substance / substance group

Following the IEC 62474 requirements, the amount of the substance(s) shall be specified in the declaration in either mass or mass percent, but not both. If multiple suppliers are used to supply one component and CRM amount (in mass or mass %) varies between suppliers, a range amount (x-x % or x-x mass) should be declared.

Note 1: Specific product parts such as an wire, may be declared in “meter” or “square meter” unit of measure (or a fraction thereof).

When reporting product families (e.g. ICs, resistors, capacitors, etc) which contain multiple products in one declaration, manufacturers should report them using mass percent. When reporting assemblies or finished goods when a single product is declared, it should be declared in mass. Reporting concentrations (mass percent) for product families provides sufficient data for the receiver of the declaration to correctly calculate the mass of each product in the family with their IT software system tools, while streamlining the number of material declarations to be exchanged between the two companies.
When declaring product parts, it should be ensured that mass percent is always referring to the next higher level in the product hierarchy that is declared. This means that mass percent can refer to the material, to the product part or to the product.

Note 2: See IEC 62474-1 for more details on declaration amounts

6.1.4 Reporting threshold

Reporting threshold is a pre-defined minimum amount at which a substance or substance group should be reported. In general declarable substance and declarable substance group entries have a reporting threshold based on the mass percent of the product, product part or material being reported. The threshold may also be based on absolute mass value (e.g. the amount, if present above certain given value, needs to be reported). In some cases it is enough to report the absence of a substance above certain mass/mass percent.

The threshold for declaration of non-regulated CRMs should be set to meet the information needs of the user of this standard, e.g. for recycling purposes is likely to be higher than in case of hazardous substances. Another option is setting threshold to "intentionally added".

7 Maintenance of the CRM list

The CRM list itself is maintained by the European Commission and regularly updated, at least every three years.

The IEC 62474 substances list which includes regulated CRMs is maintained by the VT 62474 (validation team). This team updates information in the database based on requirements specified in the IEC 62474 standard, generally triggered by updates of regulatory requirements. If a new CRM is regulated or if requirements of an existing legislation are updated, it will be assessed and included into the IEC 62474 regulated substance list.

8 Checking compliance

Material declaration as described in this document is one of the methods manufacturers may use in order to demonstrate compliance with an applicable substance (group) legislation. Another method may be testing. However, due to the complex structure of most of the energy-related products, it is impractical for manufacturers of products to undertake testing of all substances contained in the final assembled product, also considering that there may not be appropriate test methods available to test them. Instead, in most cases, the only practical way to assess the presence of substances/substance groups in the product is for manufacturers to work with their suppliers to manage compliance and compile technical documentation as evidence of compliance. This approach is well recognised by both industry and enforcement authorities.

9 Communication of CRM-related content

Information on the use of regulated CRMs in energy-related products should be communicated in the supply chain to all downstream users and should be collected by manufacturers of the ErP. Typical information that can be available after collection of the data is (depending on the specific requirements in the applicable legislation):

- Name of the substance or substance group
- The amount (in mass or mass %) in the product or product part
If known, the location (in the product) where the substance is found

CRM data shall be made available by the manufacturer to authorities for surveillance purposes. A summary of the data shall be provided to relevant professionals like recycling operators. Unless otherwise stipulated in the legislation, the exact form how the information will be provided shall be agreed upon with recyclers. Examples are:

- Amounts or ranges of CRM in the product type or family
- Typical location in the product (e.g. PCBs)

Note: The communication aspects of CRM use are further detailed within the prEN 45559 - Methods for providing information relating to material efficiency aspects of energy-related products
Annex A
(informative)

Introduction to the IEC 62474 Standard

A.1 IEC 62474 introduction

The International IEC 62474 is implemented in two parts:

- IEC 62474 Edition 2 (111/459/CDV) - Material declaration for products of and for the electrotechnical industry
- IEC 62474 database - http://std.iec.ch/IEC62474
- IEC TR 62474.1 - Material declaration for products of and for the electrotechnical industry – Part 1: Guidance for the implementation of IEC 62474

IEC 62474 standard includes a material declaration procedure (rules) and an XML schema for data exchange. By using this standard the supplier creating a material declaration and the customer receiving the declaration are using the same data format.

The IEC 62464 database is located on the IEC website and contains the information that is updated periodically (Declarable Substance List and XML Schema).

Declarable Substance List (DSL) specifies what substances, substance groups and material classes need to be included in the material declarations. Each substance or substance group entry in the list is completed with the reportable application and a reporting threshold level.

There are three different criteria used to classify declarable substances, declarable substance groups, and material classes in the IEC 62474 Database:

- Criteria 1: substance or substance group that is regulated and with “mandatory” reporting requirement
- Criteria 2: substance or substance group currently under assessment to be regulated
- Criteria 3: substance or substance group not regulated but with recognized industry-wide interest. For “for information only” reporting with “optional” reporting requirement

Note 1: Once the effective date of the regulatory requirement is specified, Criteria 2 substance (group) is reclassified as category 1.

Note 2: A criteria 3 “for information only” declarable substance (group) is to be reclassified as criteria 1 or criteria 2 if one of those criteria become applicable.

The information in the IEC 62474 database (including the DSL) are updated as needed, but a minimum of once per year. This is done by the IEC Validation Team (VT). The validation team is a permanent, “executive” group of experts appointed by and acting as delegates on behalf of their National Committees to validate proposed items and vote for their release as part of a database standard.

There are many commercially and private available tools to support material declaration collection based on the IEC 62474 XML schema (procedure and rules). Companies can also develop their own “interface” tool which support their own list of substances and declarations.
A.2 Considerations on the inclusion of CRMs into the IEC 62474 substances list

To be fully compliant with IEC 62474 or other similar substances declaration scheme, the legal requirements on CRM should contain:

- A unique name of the substance or substances group
- For a substance group, the complete list of substances included in the group should be listed
- A threshold should be associated to each substance. If the presence of the substance is above threshold then it shall be declared by the users
- In case of a group of substances, it must be indicated if the threshold apply to a single substance of the group, or to the total amount of substance in the group
- If exemptions apply, then they should be indicated.

A.3 Example of data element types of a material declaration

Table A.1 shows a few selected snapshots of data element types of a material declaration according to IEC 62474 standard. These data elements represent a simplified view of the data fields in the XML schema.

Note 1: Table A.1 is for reference purpose only and it does not contain all element types of a material declaration. For the complete overview, refer to the IEC 62474 Edition 2 (111/459/CDV), Annex A.

Note 2: For the actual description of mandatory and optional requirements, it is referred to the data exchange format within the IEC 62474 Database. If there is a discrepancy between Table A.1 and the IEC 62474 Database, the IEC 62474 Database takes precedence.

Table A.1 – Selected data element types of a material declaration (1 of 5)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data element type</th>
<th>Obligation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main (top level object to be included in every material declaration)</td>
<td>schemaDatabaseVersion</td>
<td>Mandatory</td>
<td>Version of the IEC Database which contains the XML schema on which the declaration is based.</td>
</tr>
<tr>
<td></td>
<td>ToolNameVersionID</td>
<td>Optional</td>
<td>Unique tool name and its version number used for material declaration data exchange compliant to IEC 62474 requirements.</td>
</tr>
<tr>
<td></td>
<td>Signature</td>
<td>Optional</td>
<td>Digital signature</td>
</tr>
<tr>
<td></td>
<td>Include</td>
<td>Mandatory</td>
<td>Contents of the declaration Declaration for compliance, Composition declaration, Declaration for compliance and Composition declaration, Material class, Lists etc.</td>
</tr>
<tr>
<td></td>
<td>declarationComplete</td>
<td>Optional</td>
<td>Status declaration indicating that XML data file is complete or is in progress of file-creation.</td>
</tr>
<tr>
<td></td>
<td>charaLocal</td>
<td>Conditional</td>
<td>The language character set as defined by ISO 633-1:2002 specifies the local language that is used in the elements with postfix “Local” (for example, “nameLocal”).</td>
</tr>
</tbody>
</table>
Table A.1 (2 of 5)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data element type</th>
<th>Obligation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business info</td>
<td></td>
<td>parent</td>
<td>child</td>
</tr>
<tr>
<td>Response</td>
<td>SupplyCompany</td>
<td>Mandatory</td>
<td>Name, identifier and address of the supplier company</td>
</tr>
<tr>
<td>Contact</td>
<td>Mandatory</td>
<td></td>
<td>Name, title, phone, email of the supplier contact person</td>
</tr>
<tr>
<td>Authorizer</td>
<td>Mandatory</td>
<td></td>
<td>Name, title, phone, email of the supplier person authorizing the accuracy of this material declaration</td>
</tr>
<tr>
<td>date</td>
<td>Mandatory</td>
<td></td>
<td>Date the response is returned to the requester by the responder in response/responder mode or the date the distribute form is completed in Pro-active distribution mode.</td>
</tr>
<tr>
<td>docID</td>
<td>Optional</td>
<td></td>
<td>Identification code for declaration. In request/responder mode, the responder defines the identification code. In distribution mode, the declaring company defines the identification code.</td>
</tr>
<tr>
<td>comment</td>
<td>Optional</td>
<td></td>
<td>Comment field for any additional information correspond to the supplier.</td>
</tr>
<tr>
<td>Request</td>
<td>RequestCompany</td>
<td>Mandatory</td>
<td>Name, identifier and address of the supplier company</td>
</tr>
<tr>
<td>Contact</td>
<td>Mandatory</td>
<td></td>
<td>Name, title, phone, email of the supplier contact person</td>
</tr>
<tr>
<td>date</td>
<td>Mandatory</td>
<td></td>
<td>Date the request is made by the requesting company</td>
</tr>
<tr>
<td>docID</td>
<td>Optional</td>
<td></td>
<td>Identification code for the request as specified by the requester.</td>
</tr>
<tr>
<td>internalSupplierID</td>
<td>Optional</td>
<td></td>
<td>Identifier for the responder assigned by the requester.</td>
</tr>
</tbody>
</table>
## Table A.1 (3 of 5)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data element type</th>
<th>Obligation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>name</td>
<td>Optional</td>
<td>Product name used by the supplier.</td>
</tr>
<tr>
<td></td>
<td>identifier</td>
<td>Mandatory</td>
<td>An identifier (Authority and List Identity) for the product defined by the supplier.</td>
</tr>
<tr>
<td></td>
<td>manufacturingSite</td>
<td>Optional</td>
<td>Manufacturing site of the product.</td>
</tr>
<tr>
<td></td>
<td>effectiveDate</td>
<td>Mandatory</td>
<td>Date that the material declaration is applicable and valid.</td>
</tr>
<tr>
<td></td>
<td>version</td>
<td>Optional</td>
<td>Product version (if applicable).</td>
</tr>
<tr>
<td></td>
<td>requesterName</td>
<td>Optional</td>
<td>Product name used by the requesting company.</td>
</tr>
<tr>
<td></td>
<td>requesterIdentifier</td>
<td>Optional</td>
<td>An identifier (Authority and List Identity) for the product defined by the requester.</td>
</tr>
<tr>
<td>Mass</td>
<td>Mandatory</td>
<td></td>
<td>The total mass of the product and its unit of measure for the mass.</td>
</tr>
<tr>
<td>InstanceID</td>
<td>Optional</td>
<td></td>
<td>Identification of a specific product instance or a range of instances that are applicable to this declaration</td>
</tr>
<tr>
<td>productFamilyName</td>
<td>Optional</td>
<td></td>
<td>Name of product family being declared.</td>
</tr>
<tr>
<td>QueryList</td>
<td>Optional</td>
<td></td>
<td>A query list provides the ability to declare true/false responses to statements that may be specified by either the requester or responder.</td>
</tr>
<tr>
<td>unitType</td>
<td>Mandatory</td>
<td></td>
<td>A unit type describes the units used to measure a product. Eq: Each, g, kg, cm², m³, cm³</td>
</tr>
<tr>
<td>comment</td>
<td>Optional</td>
<td></td>
<td>Comment field for any additional information correspond to the product.</td>
</tr>
<tr>
<td>Exemptions</td>
<td>Optional</td>
<td></td>
<td>Exemptions being declared for the product.</td>
</tr>
<tr>
<td>Category</td>
<td>Data element type</td>
<td>Obligation</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------</td>
<td>-------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Composition</td>
<td>MaterialList</td>
<td>Optional</td>
<td>An identifier (Authority and List Identity) for the material list in declaring the material.</td>
</tr>
<tr>
<td></td>
<td>DeclarableSubstanceList</td>
<td>Optional</td>
<td>An identifier (Authority and List Identity) for the reference declarable substance list in composition declaration. (Only if there is it)</td>
</tr>
<tr>
<td></td>
<td>ProductPart</td>
<td>Conditional</td>
<td>sub-unit of a product or another (product) part. A Product Part can be decomposed into other Product Parts</td>
</tr>
<tr>
<td></td>
<td>Material</td>
<td>Conditional</td>
<td>material and its properties which is being reported for the product family, product, or product part</td>
</tr>
<tr>
<td>Substance</td>
<td>name</td>
<td>Mandatory</td>
<td>The name of the declarable substance correspond to the declarable substance list defined as SubstanceList</td>
</tr>
<tr>
<td></td>
<td>UniqueID</td>
<td>Conditional</td>
<td>The unique identifier (Authority and List Identity) of the substance</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
<td>Conditional</td>
<td>The mass of the substance within a product, product part or material and its unit of measure for the mass</td>
</tr>
<tr>
<td></td>
<td>MassPercent</td>
<td>Conditional</td>
<td>The mass percent of the mass</td>
</tr>
<tr>
<td></td>
<td>MatMassPercent</td>
<td>Conditional</td>
<td>Substance concentration in mass percent of the homogeneous material mass. The mass percent is calculated as specified in IEC 62474 Database if a reporting requirement is provided</td>
</tr>
<tr>
<td></td>
<td>reportingThreshold</td>
<td>Optional</td>
<td>Concentration limit at or above which the presence of a declared substance in a material or product is declared.</td>
</tr>
<tr>
<td></td>
<td>Exemptions</td>
<td>Optional</td>
<td>Exemptions applicable to declared substance and identifier of the Exemption List</td>
</tr>
</tbody>
</table>
### Table A.1 (5 of 5)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data element type</th>
<th>Obligation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProductPart</td>
<td>ProductID</td>
<td>parent</td>
<td>The name of the product part</td>
</tr>
<tr>
<td></td>
<td></td>
<td>child</td>
<td></td>
</tr>
<tr>
<td></td>
<td>name</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>identifier</td>
<td>Optional</td>
<td>The identifier of the product part.</td>
</tr>
<tr>
<td></td>
<td>manufacturingSite</td>
<td>Optional</td>
<td>Manufacturing site of the product part.</td>
</tr>
<tr>
<td></td>
<td>effectiveDate</td>
<td>Conditional</td>
<td>Date that the material declaration is applicable and valid.</td>
</tr>
<tr>
<td></td>
<td>version</td>
<td>Optional</td>
<td>Product part version (if applicable)</td>
</tr>
<tr>
<td></td>
<td>requesterName</td>
<td>Optional</td>
<td>Product part name used by the requesting company.</td>
</tr>
<tr>
<td></td>
<td>requesterIdentifier</td>
<td>Optional</td>
<td>Product part identifier used by the requesting company.</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
<td>Conditional</td>
<td>The mass of the product part and its unit of measure for the mass.</td>
</tr>
<tr>
<td></td>
<td>MassPercent</td>
<td>Conditional</td>
<td>The mass percent of the product part to the product.</td>
</tr>
<tr>
<td></td>
<td>InstanceID</td>
<td>Optional</td>
<td>Identification of a specific product instance or a range of instances that are applicable to this declaration</td>
</tr>
<tr>
<td></td>
<td>numberOfUnits</td>
<td>Mandatory</td>
<td>Number of identical instances of product part in a declared product.</td>
</tr>
<tr>
<td></td>
<td>comment</td>
<td>Optional</td>
<td>Comment field for any additional information correspond to the product part.</td>
</tr>
<tr>
<td></td>
<td>Material</td>
<td>Conditional</td>
<td>Material and its properties which is being reported for the product family, product, or product part</td>
</tr>
</tbody>
</table>

Note: The (this category is conditional) indicates that this category is conditional in the given context.
Bibliography


[7] prEN 45559 - Methods for providing information relating to material efficiency aspects of energy-related products

[8] prEN 45555 - General methods for assessing the recyclability and recoverability of energy-related products


[10] CloseWEEE (www.closeweee.eu) project (grant agreement No 641747) – An EU Horizon 2020 research and innovation programme

[11] RIC - the Recyclers Information Center (Developed as part of the CloseWEEE project aimed at improving technology and procedures for end-of-life treatment of WEEE


[16] IEC 63000:2016, Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

[17] IEC 62430, Environmentally conscious design for electrical and electronic products

[18] IEC TR 62635:2012, Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment

