

# Supporting the development of appropriate material categories for the SCIP database

---

## 1. Introduction

This report has been prepared under contract ECHA/2018/338 and constitutes the output of Work package 4, Task 1 concerning support on the development of appropriate material categories.

ECHA requested support in the development of appropriate material categories relevant for the SCIP database on articles containing Candidate List substances. The material categories form part of the information requirements for the Substances of Concern In articles, as such or in complex objects (Products) (SCIP) database. Feedback from stakeholders during a workshop in October 2018 suggests that a material classification is needed to identify material-based waste streams impacted when articles containing Candidate List substances become waste.

The task detailed by ECHA was to help define a material categorisation and sub-categorisation system which will allow waste operators to easily identify impacted waste streams and address the concerns from stakeholders.

This report details the outcomes of the task and is structured in five sections: First, the aims and approach are specified in Section 2. In Section 3 the criteria for assessing material categories are explained. Section 4 details the development of material categories. Section 5 covers the stakeholder responses to the material categories proposed by ECHA. Finally, Section 6 presents the conclusions.

## 2. Aim and approach

The main aim of this task is to help ECHA to better define a material categorisation and sub-categorisation system which will allow waste operators and recyclers to more easily identify waste streams that may contain Candidate List substances, once articles containing those substances become waste. This will allow operators to more efficiently and appropriately manage these articles or the materials they are made of. This task produces a recommended list of material categories and sub-categories that would be feasible for duty holders to provide and which would be most relevant to waste operators and recyclers. For the finalised material categories, the advantages and disadvantages of different levels of differentiation are investigated taking into account waste operator needs as well as workability for duty holders.

To achieve this, the following three subtasks were conducted:

- **Subtask A, Criteria development** – criteria were determined to evaluate existing categories of materials according to the needs of waste and recycling operators and availability of information to producers of articles in order to identify gaps and opportunities for improvement.
- **Subtask B, Desktop research** – involved a review of stakeholder responses to ECHA's call for input<sup>1</sup> on the document ECHA produced titled "Draft scenario for the database on articles

---

<sup>1</sup> From 20 September to 9 October 2018, ECHA held a public call for input on its first draft scenario for the future SCIP database. The draft scenario is accessible here:

[https://echa.europa.eu/documents/10162/24198999/scenario\\_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c](https://echa.europa.eu/documents/10162/24198999/scenario_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c)

containing Candidate List substances” in which some responses provided information on potential material categories. In addition, existing systems of material classification were identified. These were evaluated according to the criteria developed earlier and the output is a set of proposed material categories and sub-categories. A list of literature covered in this subtask is in Appendix A.

- **Subtask C, Targeted consultation** – using both an online survey and telephone interviews, stakeholder views on the proposed categorisation were identified. The consultation provided a verification of views on the proposed system (overall structure and granularity for different material categories).

## 3. Subtask A: Material category criteria development

### 3.1 Overview

A range of criteria were developed to evaluate existing material categorisation options according to the requirements for two main stakeholder groups:

- Waste and Recycling Operators (WROs); and
- Duty Holders (producers/importers of articles).

A wider consideration was then given in order to understand existing industry-specific material classification systems and to identify potential gaps or mismatches between the most common systems and the proposed new material classification system. The material classification system used to request input from stakeholders was developed by ECHA (see Appendix D). The classification incorporates work by Wood on the earlier stages of this task and also inputs from stakeholder consultation on the public call for input on the draft scenario<sup>2</sup>.

### 3.2 Waste and recycling operators

In order to understand the current and likely future requirements of waste and recycling operators (WROs) regarding material categorisation in the SCIP database, consideration was given to:

1. The current legal requirements on WROs as defined within key overarching European legislation, specifically the requirements for reporting on managed waste and recycling streams;
2. Whether the classification system proposed meets the needs of the waste operators; and
3. Anticipated future requirements related to a more circular economy.

### 3.3 Duty holders

It was also necessary to understand the context that producers of articles and other duty holders are working within to ensure that the requirements of the material categorisation are achievable at the point of entry into the SCIP database. Therefore, consideration was given to:

---

<sup>2</sup> “Analysis of comments from public call for input” accessible here:

[https://echa.europa.eu/documents/10162/24198999/analysis\\_call\\_for\\_input\\_en.pdf/d49b9154-64d4-5e47-09b5-94c165991c19](https://echa.europa.eu/documents/10162/24198999/analysis_call_for_input_en.pdf/d49b9154-64d4-5e47-09b5-94c165991c19)

1. The current legal requirements for duty holders as defined within key overarching European legislation, specifically the requirements for reporting on articles produced in the EU or imported into the EU market;
2. Whether the classification system proposed meets the needs of EU producers and importers of articles; and
3. Anticipated future requirements related to a more circular economy.

### 3.4 Existing categorisation systems

Existing categorisation systems already in use by both key stakeholder groups were identified and reviewed. These included European wide statutory systems (for example, those used for common customs tariffs and for the common classification and identification of wastes) as well as industry-specific standards and guidelines.

In order to fully understand these requirements ahead of stakeholder engagement, particular consideration was given to the requirements outlined within the following:

1. Combined Nomenclature (CN) codes (<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31987R2658>);
2. The European Waste Catalogue (or List of Wastes) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32014D0955>);
3. Swedish Chemical Agency's (KEMI) Commodity Guide (<https://webapps.kemi.se/varuguiden/default.aspx>);
4. Ökopol's Materials Information Platform<sup>3</sup>;
5. The Joint Research Centre (JRC) End of Waste Criteria<sup>4</sup>;
6. Best Available Techniques (BAT) Reference Documents (BREF) in use within key industries (<https://eippcb.jrc.ec.europa.eu/reference/>); and

With additional consideration of a number of additional systems including:

7. UN Globally Harmonised System (GHS) ([http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev08/08files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev08/08files_e.html));
8. The European Commission's Raw Materials Information System (<https://rmis.jrc.ec.europa.eu/> although this was in early stages for some of the materials considered); and
9. Some industry specific systems (e.g. GADSL for the automotive sector - <https://www.gadsl.org/>).

The approaches towards categorisation outlined within each of these were considered primarily on the basis of their advantages (i.e. whether the system overlaps with or fulfils the needs of particular stakeholder groups or material streams) and disadvantages (i.e. whether the system clashes with the needs of particular stakeholder groups or material streams).

---

<sup>3</sup> This document is not publicly available, the feasibility study on the Material Information Platform is available here: [https://echa.europa.eu/documents/10162/13563/mip\\_public+report\\_en.pdf/4f7208b9-a45e-41be-9c82-c6b1838f971e](https://echa.europa.eu/documents/10162/13563/mip_public+report_en.pdf/4f7208b9-a45e-41be-9c82-c6b1838f971e)

<sup>4</sup> Criteria has been laid down for three material groups; iron, steel and aluminium scrap (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011R0333>), glass cullet (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012R1179>) and copper scrap (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0715>)

An important aspect taken into consideration has been the approach adopted by ECHA, as set out in the “Detailed information requirements for the SCIP database”<sup>5</sup>, which was published in September 2019 and , describes articles in terms of:

- the materials they are made of and/or mixture type(s) that are incorporated in them (materials or mixtures categories);
- their functions and uses (article categories based on the Integrated Tariff (TARIC) / Combined Nomenclature (CN) systems).

## 4. Subtask B: Development of material categories

### 4.1 Review of responses from previous stakeholder consultation

Prior to this task commencing, ECHA carried out a detailed stakeholder consultation on its “Draft scenario for the database on articles containing Candidate List substances”<sup>6</sup>. Respondents identified particular systems of material classification within their response (e.g. Combined Nomenclature or industry-specific schemes), their responses were analysed.

### 4.2 Literature review

A literature review was carried out to identify and confirm existing material classification systems of relevance to the database and its future users. Legislation, databases and reports identified were evaluated according to the criteria developed within Subtask A.

A full list of legislation, relevant EU and industry-sector-focused reports, databases and information sources which considered material categorisation options reviewed is presented in Appendix A. The key legislation, communications, reports and databases consulted, and findings are summarised in Appendix B.

### 4.3 Proposed material categories

Following the literature review an initial proposal for material categories was supplied to ECHA for consideration. This included 13 overarching (Level 1) material categories as detailed within Table 4.5. Each Level 1 material category was subcategorised further into up to 6 sub-categories for consideration by ECHA.

Table 4.1 Proposed level 1 material categories

Initially proposed material categories	
Ceramics	Plaster and gypsum
Glass	Stone and minerals

<sup>5</sup> [https://echa.europa.eu/documents/10162/28213971/scip\\_information\\_requirements\\_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d](https://echa.europa.eu/documents/10162/28213971/scip_information_requirements_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d)

<sup>6</sup> From 20 September to 9 October 2018, ECHA held a public call for input on its first draft scenario for the future SCIP database. The draft scenario is accessible here:

[https://echa.europa.eu/documents/10162/24198999/scenario\\_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c](https://echa.europa.eu/documents/10162/24198999/scenario_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c)

Metals	Textile fibres and other similar fibres
Raw hides and skins, leather and similar	Cellulosic pulps, paper and cardboard
Plastics	Wood and vegetable material
Rubbers or elastomers	Miscellaneous
Cement and lime	

After further consideration, the material categories used within further stakeholder consultation was produced by ECHA<sup>7</sup>.

Table 4.2 ECHA revised draft level 1 material categories

ECHA material types	
Ceramics	Rubbers and elastomers
Glass	Stone, plaster and cement
Leather and raw hides	Textile fibres and other fibres
Metals	Wood and cork
Paper and board	Other
Plastics (and polymers)	

## 5. Subtask C: Stakeholder feedback on the proposed material categories

### 5.1 Overview of stakeholder feedback

A survey was created to gather high-level comments on the proposed material categories. The survey was reviewed by ECHA and disseminated to stakeholders via the online tool SurveyMonkey<sup>8</sup>. To streamline the input from stakeholders, the survey was conducted in conjunction with the request for input on safe use instructions<sup>9</sup>. Consequently, the survey consisted of two parts, the first on the proposed material categories and the second part on safe use instructions. Respondents were able to choose to respond to one or both parts. Please see Appendix C for a copy of the survey.

The survey was launched online on 22 July 2019 and 81 stakeholder were contacted via email to participate with a deadline of 28 August 2019. The deadline for survey was further extended to 15 September 2019.

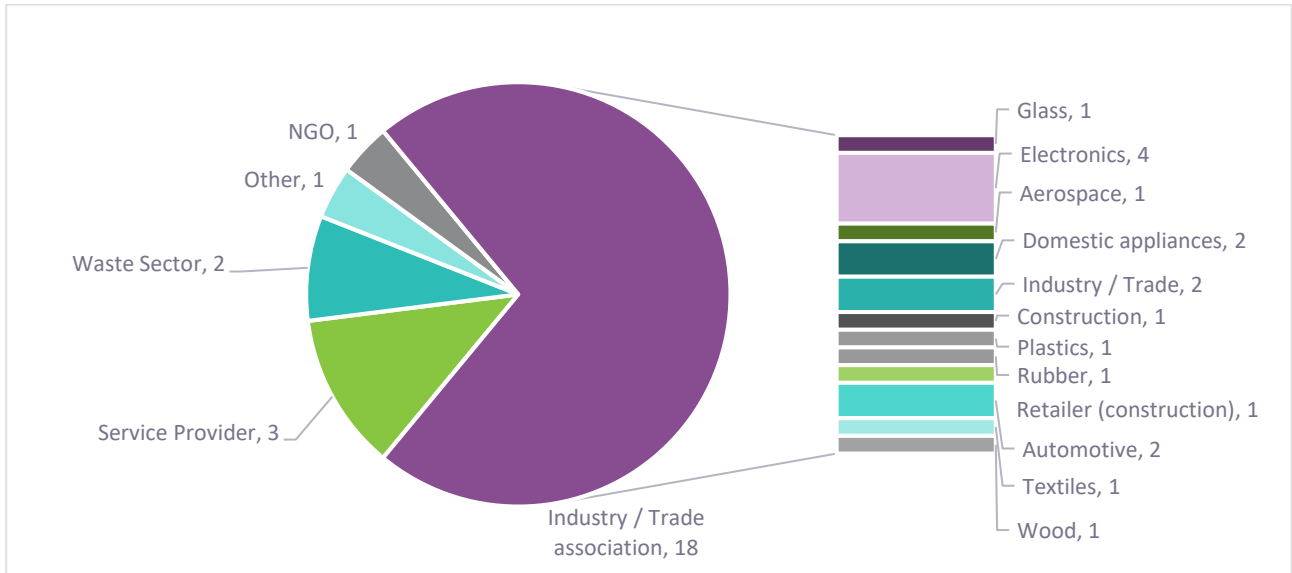
<sup>7</sup> Please refer to document "Material categories\_draft\_12072019.pdf" for proposed material categorisation – provided by ECHA in July 2019. A copy of the document is present in Appendix D.

<sup>8</sup> <https://www.surveymonkey.com/>

<sup>9</sup> The results of this are summarised in the report on "Safe use instructions and the SCIP database – stakeholder views and current practices", November 2019.

A total of 25 respondents completed the material categories survey, Figure 5.1 shows a breakdown of the responses by stakeholder type. Industry and trade associations are the main stakeholder group that provided a response, with 18 respondents covering 12 different sectors.

Figure 5.1 Breakdown of the organisations providing response to the survey



Of the respondents, 13 are or represented duty holders, 10 respondents represented other users and 2 respondents were waste or recycling organisations. A total of 14 respondents were trade associations, of which 10 have members inside and outside of the EU. The other 4 respondents only have members in the EU.

Following the survey, 17 stakeholders were contacted for targeted interviews based on their responses and 9 respondents agreed to participate. All stakeholders involved in the interviews were from industry, however two of the trade associations interviewed represent both the manufacturing and the recycling phase of products. All interviews were completed between 6 September 2019 and 26 September 2019.

In addition, during interviews for a separate task (on use cases for the database), selected stakeholders were also asked for additional feedback on material categories. These interviews took place between 15 October 2019 and 28 October 2019. A total of 8 stakeholders provided additional feedback, 5 of which were associations or operators from the waste/recycling sector, 1 a Member State authority, 1 an NGO and 1 a consumer electronics company.

## 5.2 Analysis of the feedback

The key feedback from stakeholders on the proposed material categorisation and subcategories is presented in Table 5.1.

Table 5.1 Feedback from stakeholders on proposed material categories and subcategories

Material Category	Stakeholder feedback
<b>1. Ceramics</b>	<ul style="list-style-type: none"> <li>▶ A respondent from the automotive industry believes that ‘Ceramics’ and ‘Glass’ categories should be merged.</li> <li>▶ An electronic goods manufacturer noted that a carbon materials subcategory is missing (such as graphite, graphene, diamond, carbon nanotubes).</li> </ul>

Material Category	Stakeholder feedback
	<ul style="list-style-type: none"> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information.</li> <li>▶ A service provider states that subcategories in level 3 are too detailed and specifically the 'Lead zirconium titanate' category is inappropriate as the substance is an SVHC and duplicates information.</li> <li>▶ The stakeholder also notes 'Lead zirconium titanate' is a 'Zirconium oxide' ceramic and so these two groups overlap.</li> <li>▶ There is overlap in level two subcategories 'Glazed' and 'Enamelled' as both are types of coatings and would fall into the 'coated' subcategory.</li> </ul>
<b>2. Glass</b>	<ul style="list-style-type: none"> <li>▶ A respondent from the automotive industry believes that the 'Ceramics' and 'Glass' categories should be merged.</li> <li>▶ An electronic goods manufacturer noted that a subcategory on aluminosilicate glass is missing.</li> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information.</li> <li>▶ A stakeholder notes the overlap in the level two subcategories 'Brown glass', 'Green glass' and 'Coloured glass'.</li> </ul>
<b>3. Leather and raw hides</b>	<ul style="list-style-type: none"> <li>▶ Two respondents from the automotive industry believe that 'Leather and raw hides', 'Paper and board', 'Textile fibres and other fibres' and 'Wood and cork' should be merged into a "Modified organic natural materials" category.</li> <li>▶ A representative of the leather industry trade association highlighted leather alternatives can be made from synthetic polymers or vegetable matter. It was suggested that these materials are classed in a separate group as the composition is different.</li> <li>▶ It was suggested to use the term "Fake Leather", because alternative terms such as artificial leather or faux leather have different meanings in the industry.</li> <li>▶ The leather industry stakeholder also notes that the 'Feathers' subcategory is not leather or raw hide and suggests an alternative "material of animal origins" category or to place this subgroup in textiles.</li> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information.</li> </ul>
<b>4. Metals</b>	<ul style="list-style-type: none"> <li>▶ An electronic goods manufacturer noted the subcategories on beryllium and copper alloy containing beryllium are missing.</li> <li>▶ A service provider suggested that Level 3 sub-categories represent an unnecessary level of detail. In most cases, the level 3 information represents substances or substance groups which will never need to be reported as they will not become classified as SHVCs (in their view).</li> </ul>
<b>5. Paper and board</b>	<ul style="list-style-type: none"> <li>▶ Two respondents from the automotive industry believe that 'Leather and raw hides', 'Paper and board', 'Textile fibres and other fibres' and 'Wood and cork' should be merged into a "Modified organic natural materials" category.</li> <li>▶ An electronic goods manufacturer noted a subcategory on moulded fibre is missing.</li> </ul>

Material Category	Stakeholder feedback
	<ul style="list-style-type: none"> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information..</li> </ul>
<b>6. Plastics (and polymers)</b>	<ul style="list-style-type: none"> <li>▶ Three industry respondents believe 'Plastics (and polymers)' category and 'Rubber and elastomers' categories should be merged as they are both polymers.</li> <li>▶ A service provider suggested splitting this category by thermoplastic and thermoset polymer.</li> <li>▶ An electronic goods manufacturer noted the category should include the following subcategories; PEEK (polyether ether ketone), Liquid Crystal Polymer (LCP), epoxy, acrylate polymers and silane compounds.</li> <li>▶ A waste operator stated that the subcategories in this class are useful.</li> <li>▶ A stakeholder from the plastics industry states that the level of granularity is too high and not in line with current SDS-R tool used by the industry. This tool is for plastic recyclers to identify the occurrence of dangerous additives in plastics. This tool divides plastics in to 26 subcategories by polymer type.</li> </ul>
<b>7. Rubbers and elastomers</b>	<ul style="list-style-type: none"> <li>▶ Three industry respondents believe the 'Plastics (and polymers)' category and the 'Rubber and elastomers' categories should be merged as they are both polymers.</li> <li>▶ A rubber industry trade association notes that the first level of material category is complete and sufficient. However the second level is not needed in their view as they are too detailed and do not help recyclers.</li> <li>▶ A stakeholder noted 'Latex' subcategory is a type of rubber and should be removed from the properties list and placed above with the other types of rubber.</li> </ul>
<b>8. Stone, plaster and cement</b>	<ul style="list-style-type: none"> <li>▶ No comments were received</li> </ul>
<b>9. Textile fibres and other fibres</b>	<ul style="list-style-type: none"> <li>▶ Two respondents from the automotive industry believe that 'Leather and raw hides', 'Paper and board', 'Textile fibres and other fibres' and 'Wood and cork' should be merged into a "Modified organic natural materials" category.</li> <li>▶ Two service providers noted that textile fibres are applications instead of a material type. This may cause some confusion, especially if the fibres are synthetic polymers and articles could be included in either class.</li> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information.</li> </ul>
<b>10. Wood and cork</b>	<ul style="list-style-type: none"> <li>▶ Two respondents from the automotive industry believe that 'Leather and raw hides', 'Paper and board', 'Textile fibres and other fibres' and 'Wood and cork' should be merged into a "Modified organic natural materials" category.</li> <li>▶ A retailer notes that solid timber and composite timber are missing.</li> <li>▶ The automotive industry is not able to map this material in the material class system currently used by the sector. The stakeholder suggests allowing a degree of approximation for duty holders when submitting information.</li> </ul>
<b>11. Other:</b>	<ul style="list-style-type: none"> <li>▶ No comments were received</li> </ul>



Respondents provided the following comments with regards to the completeness of the proposed material categories:

- A waste operator stated that the categorisation as is presented in an effective way to organise data; however they would need to test the classification system to see how it works.
- A retailer suggested that there should be two additional categories for “Electronics and composite” and “Nano materials”.
- An electronics industry trade association highlighted that composite materials can fall into multiple groups (such as glass fibre/plastics, carbon fibre/plastics; wood/plastics) and these materials cannot always be recycled. An example was provided concerning the “wicks of a windmill consist of plastics with glass fibre which is hindering recycling”.
- The same trade association suggests two missing groups: Liquids (e.g. oil, coolant, acid, lye, etc.) and gases (e.g. SF<sub>6</sub>, coolant such as CO<sub>2</sub>, etc). These groups are for products which are not articles or complex as defined in the information requirements<sup>10</sup>. Consequently the products in these are not in scope of the content to be covered in the SCIP Database. The stakeholder believes a more detailed list of material types would be necessary to help meeting the goals of Article 9 WFD, but it would simultaneously increase significantly the administrative burden and costs for producers.
- An electronics manufacturer stated the need for an 'Adhesives and coatings' classification<sup>11</sup> which would include materials like cyanoacrylate, paint, ink, and primers. The stakeholder also believes there needs to be an additional category for 'Inorganic compounds' which would include semiconductor materials (silicon, gallium arsenide) and carbon materials. A wider question relates to how duty holders must provide information on the presence of SVHCs added to an article by the application of a coating.
- An electronics manufacturer stated that moulding compounds are used in integrated circuits to protect silicon die, the stakeholder is unsure where such articles would fit.

Stakeholders raised the following additional comments:

- Five industry stakeholders continued to raise concerns regarding the lack of information in the supply chain and potential to expose confidential business information.
- A service provider raised concerns on the different interpretations of material categories by material engineers and product engineers. Consequently, they state that there must be adequate training in place and ensure that those completing entries are providing the same information.
- The automotive industry requested that only reporting to level 1 within the material category should be a mandatory obligation.
- One stakeholder was unclear how composite materials are inputted into the database.

Several alternative systems were suggested:

- A service provider has suggested the use of **IEC 62474** which has been designed for electronics but is now used across industries. This was recently updated to specifically aid circular economy objectives by being able to identify recycling streams and valuable materials within the codes.

---

<sup>10</sup> ECHA Detailed information requirements for the SCIP database document:

[https://www.echa.europa.eu/documents/10162/28213971/scip\\_information\\_requirements\\_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d](https://www.echa.europa.eu/documents/10162/28213971/scip_information_requirements_en.pdf/9715c4b1-d5fb-b2de-bfb0-c216ee6a785d)

<sup>11</sup> This suggestion is not in scope of the content to be covered in the SCIP Database.

The classification also utilises an alphanumeric code which is an important feature for communication information across the supply chain.

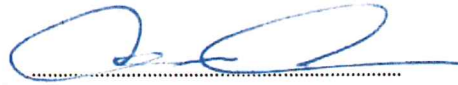
- Another service provider has suggested the use of **IPC 1752b** as alternative but also provided their own adapted version of the proposed material categories. This adapted categorisation differs from the proposed system as it:
  - ▶ only includes 2 levels of categories,
  - ▶ removes impregnate and colour from metal subgroup, fibres and coatings,
  - ▶ defines 5 subcategories which are applicable across all level one materials; these are coated, uncoated, coloured, uncoloured, impregnated or treated and composite material.

## 6. Conclusion

A detailed material categorisation and subcategorisation has been developed beginning with identifying the current and likely future requirements of waste and recycling operators and understanding the context that producers of articles and other duty holders are working with. Using these criteria for the different operators, existing material categories from legislation and other literature were reviewed. A material categorisation was defined with 13 categories each divided into 6 subcategories.

This categorisation was refined by ECHA into material categorisation consisting of 11 overarching categories. All categories are split into a second level of subcategories and some are detailed to a third level of subcategories. This categorisation was presented to stakeholders and feedback was received via a survey and follow up interviews. Input was provided primarily by stakeholders from industry, but also by waste operators. The key points made were:

- There is some overlap in category titles such as 'plastics (and polymers)', 'rubbers and elastomers' and 'textile fibres and other fibres' which presents a difficulty for duty holders to provide information. "Polymers" may also be present in other material categories e.g. paper, textiles. Clear definitions of the materials covered in each overarching category is advised to ensure correct data entry into the database.
- Stakeholders in the electronics industry identified missing categories for carbon materials, aluminosilicate glass, beryllium and copper alloy, moulded fibre, PEEK (polyether ether ketone), Liquid Crystal Polymer (LCP), epoxy, acrylate polymers and silane compounds.
- The automotive industry believes that 'Leather and raw hides', 'Paper and board', 'Textile fibres and other fibres' and 'Wood and cork' should be merged into a "Modified organic natural materials" category. However considering the industry's desire to only report up to level 1 of the material categories using a such a general category would likely be too broad to deliver valuable information to WROs.
- The industry also requests allowing a degree of approximation when inputting data for materials which do not match the existing classification used in the automotive sector.
- Two alternative systems have been proposed from industry and a service provider has created an adapted version of the ECHA proposed material categorisation (See Appendix D). These systems are thought to be more appropriate by those stakeholders (but not necessarily by the authors) as, in their view, they are more streamlined, with less ambiguity in categories and provide codes to speed up data entry.

**Issued by****Nikul Pandya****Approved by****Caspar Corden****Copyright and non-disclosure notice**

The contents and layout of this report are subject to copyright owned by Wood (© Wood Environment & Infrastructure Solutions UK Limited 2019) save to the extent that copyright has been legally assigned by us to another party or is used by Wood under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report. The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of Wood. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

**Third party disclaimer**

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by Wood at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. Wood excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however, exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

**Management systems**

This document has been produced by Wood Environment & Infrastructure Solutions UK Limited in full compliance with our management systems, which have been certified to ISO 9001, ISO 14001 and OHSAS 18001 by LRQA.

# Appendix A

## List of legislation and reports consulted

### Legislation

1. DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098>)
2. Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff. Establishes a goods nomenclature, referred to as the 'Combined Nomenclature' or the 'CN' as reproduced in its Annex I (replaced by Commission Implementing Regulation (EU) 2018/1602 of 11 October 2018). Amended by COMMISSION IMPLEMENTING REGULATION (EU) 2018/1602 of 11 October 2018 amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff.  
(<https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A31987R2658>)
3. DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 amending Directive 2008/98/EC on waste  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1574183646588&uri=CELEX:32018L0851>)
4. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R1272>)
5. EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 94/62/EC of 20 December 1994 on packaging and packaging waste  
(<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31994L0062>)
6. COMMISSION DECISION of 28 January 1997 establishing the identification system for packaging materials pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31997D0129>)
7. DIRECTIVE 2001/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 December 2001 on general product safety  
(<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2001L0095:20100101:EN:PDF>)
8. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the reduction of the impact of certain plastic products on the environment (COM/2018/340)  
(<https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52018PC0340>)
9. Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on Waste electrical and electronic equipment (WEEE)  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0019>)
10. DIRECTIVE 2000/53/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 September 2000 on end-of life vehicles  
(<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32000L0053>)

11. Regulation (EU) No 1007/2011 of the European Parliament and of the Council of 27 September 2011 on textile fibre names and related labelling and marking of the fibre composition of textile products and repealing Council Directive 73/44/EEC and Directives 96/73/EC and 2008/121/EC of the European Parliament and of the Council  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011R1007>)
12. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on the implementation of the circular economy package: options to address the interface between chemical, product and waste legislation (COM/2018/032)  
(<https://op.europa.eu/en/publication-detail/-/publication/c1186780-fac6-11e7-b8f5-01aa75ed71a1>)
13. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on a monitoring framework for the circular economy (COM/2018/029)  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A29%3AFIN>)
14. Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes. Amended by Commission Decision 2014/955/EU amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC  
(<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32000D0532>)
15. 2018 Circular Economy Package  
([http://ec.europa.eu/environment/circular-economy/index\\_en.htm](http://ec.europa.eu/environment/circular-economy/index_en.htm))
16. REGULATION (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011R0305>)
17. Annex IV to Regulation (EU) No 305/2011 (CPR) laying down harmonised conditions for the marketing of construction products  
(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011R0305>)
18. Guidelines for the waste audits before demolition and renovation works of buildings and EU Construction and Demolition Waste Management Protocol.  
([https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0\\_en](https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en))

## Reports

19. JRC 2014 End-of-waste criteria for waste plastic for conversion: technical proposals  
(<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-waste-plastic-conversion-technical-proposals>)
20. EU 2018 A European Strategy for Plastics in a Circular Economy  
(<https://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy-brochure.pdf>)
21. ECHA 2018 ECHA's Technical supporting document to the Draft scenario for the database on articles containing Candidate List substances (Section 3.2.2.3)  
([https://echa.europa.eu/documents/10162/24198999/technical\\_annex\\_en.pdf/fd3dd13c-dc53-d5d4-b1ee-015307ed0331](https://echa.europa.eu/documents/10162/24198999/technical_annex_en.pdf/fd3dd13c-dc53-d5d4-b1ee-015307ed0331))
22. ECHA 2015 ECHA's R12 Guidance on use description (AC categories - Table R.12- 14)  
([https://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r12\\_en.pdf](https://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf))

23. JRC 2010 End-of-waste Criteria for Iron and Steel Scrap: Technical Proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-iron-and-steel-scrap-technical-proposals>)
24. JRC 2010 End-of-waste Criteria for Aluminium and Aluminium Alloy Scrap: Technical Proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-aluminum-and-aluminium-alloy-scrap-technical-proposals>)
25. JRC 2011 End-of-waste criteria for waste paper: Technical proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-waste-paper-technical-proposals>)
26. JRC 2011 End-of-Waste Criteria (EoW) for Glass Cullet: Technical Proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-glass-cullet-technical-proposals>)
27. JRC 2014 End-of-waste criteria for biodegradable waste subjected to biological treatment (compost & digestate): Technical proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-biodegradable-waste-subjected-biological-treatment-compost-digestate>)
28. JRC 2014 End-of-waste criteria for waste plastic for conversion (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-waste-plastic-conversion-technical-proposals>)
29. JRC 2011 End-of-waste Criteria for Copper and Copper Alloy Scrap: Technical Proposals (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/end-waste-criteria-copper-and-copper-alloy-scrap-technical-proposals>)
30. BREF for Ceramic Manufacturing Industry ([https://eippcb.jrc.ec.europa.eu/reference/BREF/cer\\_bref\\_0807.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/cer_bref_0807.pdf))
31. BREF for Production of Iron and Steel ([https://eippcb.jrc.ec.europa.eu/reference/BREF/IS\\_Adopted\\_03\\_2012.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/IS_Adopted_03_2012.pdf))
32. BREF for Ferrous Metals Processing Industry ([https://eippcb.jrc.ec.europa.eu/reference/BREF/fmp\\_bref\\_1201.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/fmp_bref_1201.pdf))
33. BREF for Non Ferrous Metals Industries ([https://eippcb.jrc.ec.europa.eu/reference/BREF/NFM/JRC107041\\_NFM\\_bref2017.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/NFM/JRC107041_NFM_bref2017.pdf))
34. BREF for Cement and Lime Manufacturing Industries ([https://eippcb.jrc.ec.europa.eu/reference/BREF/CLM\\_Published\\_def.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/CLM_Published_def.pdf))
35. BREF for Glass Manufacturing Industry ([https://eippcb.jrc.ec.europa.eu/reference/BREF/GLS\\_Adopted\\_03\\_2012.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/GLS_Adopted_03_2012.pdf))
36. BREF for Large Volume Inorganic Chemicals - Solids and Others Industry ([https://eippcb.jrc.ec.europa.eu/reference/BREF/lvic-s\\_bref\\_0907.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/lvic-s_bref_0907.pdf))
37. BREF for Production of Polymers ([https://eippcb.jrc.ec.europa.eu/reference/BREF/pol\\_bref\\_0807.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/pol_bref_0807.pdf))
38. BREF for Production of Speciality Inorganic Chemicals ([https://eippcb.jrc.ec.europa.eu/reference/BREF/sic\\_bref\\_0907.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/sic_bref_0907.pdf))
39. BREF for Pulp and Paper Industry ([https://eippcb.jrc.ec.europa.eu/reference/BREF/PP\\_revised\\_BREF\\_2015.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/PP_revised_BREF_2015.pdf))

40. BREF for Surface treatment of metals and plastics  
([https://eippcb.jrc.ec.europa.eu/reference/BREF/stm\\_bref\\_0806.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/stm_bref_0806.pdf))
41. BREF for Textiles Industry  
([https://eippcb.jrc.ec.europa.eu/reference/BREF/txt\\_bref\\_0703.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/txt_bref_0703.pdf))
42. BREF for Tanning of Hides and Skins  
([https://eippcb.jrc.ec.europa.eu/reference/BREF/TAN\\_Published\\_def.pdf](https://eippcb.jrc.ec.europa.eu/reference/BREF/TAN_Published_def.pdf))
43. Cumulative Cost Assessment (CCA) of the EU Ceramics Industry  
([https://www.ceps.eu/wp-content/uploads/2017/08/CCA%20CERAMICS\\_FinalReport.pdf](https://www.ceps.eu/wp-content/uploads/2017/08/CCA%20CERAMICS_FinalReport.pdf))
44. JAMP AIS ver 3 Material Classification Manual  
(<https://share.ansi.org/Shared%20Documents/Standards%20Activities/The%20Network%20on%20Chemical%20Regulation/Archive/JAMP%20January%2009/AIS%20ver3.00%20Material%20classification%20E.pdf>)
45. COM study - Resource efficient use of mixed waste  
([http://ec.europa.eu/environment/waste/studies/mixed\\_waste.htm](http://ec.europa.eu/environment/waste/studies/mixed_waste.htm))

#### Other

46. KEMI Commodity Guide  
(<https://webapps.kemi.se/varuguiden/Tabeller/Materialslag.aspx>)
47. European Leather Industry (Cotance) website  
(<https://www.euroleather.com/>)
48. Raw Materials Information System (RMIS)  
(<http://rmis.jrc.ec.europa.eu/>)
49. Aggregate classification  
(<http://www.greenspec.co.uk/building-design/aggregates-for-concrete/>)
50. Global Automotive Declarable Substance List (GADSL)  
(<https://www.gadsl.org/>)
51. Materials' Information Platform report, Ökopol

#### Written response to earlier consultation by ECHA on the SCIP

52. These responses have been provided for the public call for input on the "Draft scenario for the database on articles containing Candidate List substances"<sup>12</sup>. The responses have been reported in "Analysis of comments from public call for input"<sup>13</sup>.

---

<sup>12</sup> [https://echa.europa.eu/documents/10162/24198999/scenario\\_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c](https://echa.europa.eu/documents/10162/24198999/scenario_en.pdf/3021c958-d5f3-e618-5e05-be59b139822c)

<sup>13</sup> [https://echa.europa.eu/documents/10162/24198999/analysis\\_call\\_for\\_input\\_en.pdf/d49b9154-64d4-5e47-09b5-94c165991c19](https://echa.europa.eu/documents/10162/24198999/analysis_call_for_input_en.pdf/d49b9154-64d4-5e47-09b5-94c165991c19)

# Appendix B

## Detailed summary and analysis of literature reviewed

Table presenting overview of legislation

Title	Link	Summary	Stakeholder requirements
<b>DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550566856281&amp;uri=CELEX:32008L0098">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550566856281&amp;uri=CELEX:32008L0098</a>	The classification of waste as hazardous waste should be based, inter alia, on the Community legislation on chemicals, in particular concerning the classification of preparations as hazardous, including concentration limit values used for that purpose.	<b>Impacts on Waste Operators/ Recyclers:</b> Requirement to categorise and label wastes in line with the lists laid out. Wastes should include identification documents detailing content. All waste operators must obtain a permit including types/quantities of waste to be treated, technical elements of the operation, safety/precautionary measurements, monitoring operations, closure/after care plans, etc.
<b>COMBINED NOMENCLATURE (CN): COUNCIL REGULATION (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff</b>	<a href="https://ec.europa.eu/taxation_customs/business/calculatio-n-customs-duties/what-is-common-customs-tariff/combined-nomenclature_en">https://ec.europa.eu/taxation_customs/business/calculatio-n-customs-duties/what-is-common-customs-tariff/combined-nomenclature_en</a>	The regulation sets up the legal basis for TARIC (the integrated tariff of the EU) and introduces a common system for coding and classifying goods known as the Combined Nomenclature (CN), essential for processing and publishing EU trade statistics. Provides an 8-digit code for all items (The first six digits refer to the harmonised system headings and subheadings, the seventh and eighth digits represent the CN subheadings, and the ninth and tenth digits represent TARIC subheadings). CN codes are based on World Customs Organization's Harmonized System nomenclature.  The focus is on the item, not the material, makes it unsuitable for the purposes of the current study.	<b>Impact on Duty Holders:</b> Requirement to categorise all goods placed on to the EU market according to set descriptions.  Duty Holders are obligated to use the system. Considered to be important to refer to CN codes where possible but due to "product" focus rather than "article" focus, the system is not suitable for use without adjustment.
<b>HAZARDOUS WASTE DIRECTIVE: 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550566856281&amp;uri=CELEX:32008L0098">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550566856281&amp;uri=CELEX:32008L0098</a>	Dictates what constitutes hazardous wastes. Does not categorise wastes, only the characteristics that make it hazardous. Where a Member State has evidence to show that specific waste that appears on the list as hazardous waste	<b>Impacts on Waste Operators/ Recyclers:</b> Requirement to identify the hazardous characteristics of waste streams



Title	Link	Summary	Stakeholder requirements
<b>COUNCIL of 19 November 2008 on waste and repealing certain Directives and amendments</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0098">66856281&amp;uri=CELEX:32008L0098</a>	does not display any of the properties listed in Annex III, it may consider that waste as non-hazardous waste. Amendments cover the evolution of waste management toward the CE; requiring better use of materials.	
<b>REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32008R1272">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32008R1272</a>	The CLP Regulation adopts the United Nations' GHS across all EU countries for classification and labelling of substances and mixtures. CLP is legally binding across the Member States and directly applicable to all industrial sectors. It requires manufacturers, importers or downstream users of substances or mixtures to classify, label and package their hazardous substances and mixtures appropriately before placing them on the market.	<b>Impact on Duty Holders:</b> Downstream users and importers placing hazardous mixtures on the market have to submit information according to Annex VIII to the CLP. Other operators that perform activities such as re-packaging, re-filling or toll formulating may also be required to make a submission. In case of hazardous mixtures supplied from outside of the EU, it is the importer based in the EEA that has the duty to submit. <b>Impacts on Waste Operators/ Recyclers:</b> Referred to by WROs in order to understand hazards within wastes.
<b>EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 94/62/EC of 20 December 1994 on packaging and packaging waste</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01994L0062-20150526">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01994L0062-20150526</a>	The Directive covers all packaging placed on the EU market. Targets are set as a percentage of packaging flowing into the waste stream. It also requires member states to achieve targets for the recovery and recycling of packaging waste. Includes categorisation and requirements for composition so as to be reusable / recycled, including heavy metal content. Definitions of packaging and packaging waste according to material group and definition of plastic. The directive also provides a numerical classification system to identify the main material.	<b>Impact on Duty Holders:</b> classification of all types of packaging placed on the market <b>Impact on Waste Operators/ Recyclers:</b> Classification of all packaging waste
<b>COMMISSION DECISION of 28 January 1997 establishing the identification system for packaging materials pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550575091836&amp;uri=CELEX:31997D0129">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550575091836&amp;uri=CELEX:31997D0129</a>	This paper sets out the numbering and abbreviations to be used when categorising packaging wastes. Sets out abbreviations such as PET, HDPE, PVC, LDPE, PP and PS. Also for paper/fibreboard (PAP). Metals (FE, ALU). Wood/cork (FOR), Textiles - cotton and jute - (TEX) and GL for glass. Numbers also provided for composites.	As above

Title	Link	Summary	Stakeholder requirements
waste (Text with EEA relevance)			
<b>[Proposal for a] DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the reduction of the impact of certain plastic products on the environment</b>	<a href="http://ec.europa.eu/environment/circular-economy/index_en.htm">http://ec.europa.eu/environment/circular-economy/index_en.htm</a>	<i>[Directive proposal assessed only]</i> Defines 'plastic' as a material consisting of a polymer within the meaning of Article 3(5) of Regulation (EC) No 1907/2006, to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified	<b>Impacts on Duty Holders:</b> Future requirement to apply measures at the point of "placing on the market"
<b>The Waste Electrical and Electronic Equipment (WEEE) Directive (2012/19/EU)</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0019&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0019&amp;from=EN</a>	Annex 1 gives Categories and Annex 2 gives Sub-categories. Broad categorisation by product use (IT, lighting, toys) and size (large household appliance, small appliance). Sub-categorisation by specific articles (fridge, microwave, hi-fi, drill, etc)	<b>Impact on Duty Holders:</b> classification of all types of WEEE placed on the market with marking requirements <b>Impact on Waste Operators/ Recyclers:</b> Waste streams pre-classified
<b>End-of Life Vehicles Directive (2000/53/EC)</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02000L0053-20130611&amp;qid=1405610569066&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02000L0053-20130611&amp;qid=1405610569066&amp;from=EN</a>	Vehicle categorised according to Directive 70/156/EEC and hazardous substances categorised by CLP regulation Article 8 demands setting coding standards for components and materials. Annex 2 details materials and components not to be found in vehicles	<b>Impact on Waste Operators/ Recyclers:</b> Classification of all waste motor vehicles
<b>Regulation (EU) No 1007/2011 on textile fibre names and related labelling and marking of the fibre composition of textile products</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02011R1007-20130701">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02011R1007-20130701</a>	Provides definitions of textile products and listing of textile products which do not require labelling. Additionally details methods to quantitatively analyse mixture products - different method per main material.	<b>Impact on Duty Holders:</b> provides general labelling and marking requirements for manufacturers of textile fibres / products
<b>Communication on the options to address the interface between chemical, product and waste legislation (COM (2018) 32 final, 16/01/2018)</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0032&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0032&amp;from=EN</a>	Discusses options to address the interface between chemical, product and waste legislation. No categorisation mentioned	<b>Impact on Waste Operators/ Recyclers and Duty Holders:</b> signal of intention by EC to harmonise regulations in order to facilitate CE.

Title	Link	Summary	Stakeholder requirements
<b>LIST OF WASTES - 2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes including revisions</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32000D0532">https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32000D0532</a>	<p>The List of Waste (LoW) provides an EU-wide common terminology for waste classification to facilitate waste management, including for hazardous waste. The assignment of LoW codes serves in a broad variety of activities, including the transport of waste, installation permits (which often refer also to specific waste codes), or as a basis for waste statistics. The classification takes into account the origin and composition of the waste and, where necessary, the limit values of concentration of hazardous substances. According to Decision 2000/532/EC, the LoW should be revised regularly on the basis of new knowledge and, in particular, of research results.</p> <p>The last amendment is Commission Decision 2014/955/EU, which followed a specific study on the review of the European LoW.</p>	<b>Impact on Waste Operators/ Recyclers:</b> Waste operators are legally obliged to track all waste streams from the point of segregation/collection through treatment, recovery and disposal according to 6-digit EWC code.
<b>DIRECTIVE 2001/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 December 2001 on general product safety</b>	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550576930551&amp;uri=CELEX:32001L0095">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1550576930551&amp;uri=CELEX:32001L0095</a>	States importance of the public having access to information on product identification, risks and measures taken. No process/categorisation is provided.	Not determined to be relevant to material classification.

Table presenting overview of key literature

Title	Link	Overview
<b>End of Waste Criteria Reports, JRC</b>	<a href="https://susproc.jrc.ec.europa.eu/activities/waste/index.html">https://susproc.jrc.ec.europa.eu/activities/waste/index.html</a>	The Joint Research Centre end of waste criteria reports for an extensive number of industries were considered (further detailed in Appendix A) to provide an understanding of requirements to achieve "end of waste" and resulting categorisation and subcategorisation appropriate for waste operators and re-users/ recyclers.
<b>Reference Documents on Best Available Techniques</b>	<a href="https://eippcb.jrc.ec.europa.eu/reference/">https://eippcb.jrc.ec.europa.eu/reference/</a>	The BAT (Best Available Techniques) Reference Documents (BREFs) provide information on specific industrial/agricultural sectors in the EU, on the techniques and processes used in this sector, current emission and consumption levels, techniques to consider in the determination

Title	Link	Overview
<b>Materials' Information Platform report, Ökopol</b>	This document is not publicly available	of the BAT and emerging techniques including consideration of categories of waste produced. Reports for a number of key industries were consulted (detailed in Appendix A).
<b>Commodity Guide, Kemi</b>	<a href="https://webapps.kemi.se/varuguiden/default.aspx">https://webapps.kemi.se/varuguiden/default.aspx</a>	The materials classification system outlined within the Feasibility of a Materials' Information Platform report (MIP, Ökopol, 2015) proposed inclusion of 12 overarching materials categories which were then subcategorised. The system focuses on grouping articles by material and likelihood of SVHC presence.
<b>Raw Materials Information System (RMIS)</b>	<a href="https://rmis.jrc.ec.europa.eu/">https://rmis.jrc.ec.europa.eu/</a>	The Swedish Chemicals Agency's (Kemi) Commodity Guide categorises commodity groups into 176 different kinds of material and 12 overarching materials categories. User friendly system providing a high-level categorisation of the overarching material type based on CN classification.
		RMIS is the European Commission's information gateway and knowledge service centre for non-fuel, non-agriculture, primary raw materials and secondary raw materials.



## Appendix C

# Survey distributed to stakeholders

The following pages present the questionnaire titled "Stakeholder survey related to ECHA's database of articles containing Candidate List substances", which was distributed to stakeholders using SurveyMonkey between 22 July 2019 and 15 September 2019.



# Stakeholder survey related to ECHA's database of articles containing Candidate List substances

## Introduction and Scope

A team led by Wood Environmental & Infrastructure Solutions UK Limited ("Wood") with partner COWI A/S has been contracted by the European Chemicals Agency (ECHA) to provide support in the establishment and maintenance of a database on articles containing Substances of Very High Concern (SVHCs) in the Candidate List<sup>1</sup>.

In addition to the feedback already provided during the public call for input<sup>2</sup> last autumn, ECHA has commissioned Wood and COWI to conduct an informal, targeted consultation to help **the further development of material categories and safe-use instructions which may be used as standardised information**<sup>3</sup>, upon which the database, the related submission tools, and the dissemination of the information could be designed.

This questionnaire is being circulated to key stakeholders who represent both duty holders and potential users of the database (such as waste and recycling operators) across all relevant supply chains and waste streams.

In some instances, we will follow this up with a short telephone interview (of no more than about 30 minutes) to gain further detailed information. If you are happy to be interviewed, please indicate this in question 1.3 and provide your contact details. If we require further information from your organisation *and* you are happy to be interviewed, we may get in touch.

## Confidentiality

We are aware that some of the information you may want to provide could be personal, commercially sensitive and/or confidential. We are committed to working with you and with ECHA to treat such data in an appropriate manner. We will make anonymous all information relevant to specific individuals, organisations and/or facilities within our reporting and Wood, COWI and ECHA will not pass on the information that you provide to any other party without your express permission (question 1.4). Any information you provide will solely be used for the purpose of this study and in provision of a confidential report to ECHA.

## Contact details

If you have any questions about this survey or about the organisations conducting the survey on behalf of ECHA, please use contact details below:

### For material categorisation

Julius Kreißig  
Senior Consultant, Environmental Policy & Economics  
Wood  
email: julius.kreissig@woodplc.com

### For safe-use instructions

Frans Møller Christensen  
Chief Market Manager  
COWI A/S  
email: fmch@cowi.com

---

<sup>1</sup> As required by Article 9(2) of the recently revised Waste Framework Directive

<sup>2</sup> Available on the ECHA website <https://echa.europa.eu/-/workshop-on-waste-framework-directive-database-22-23-10-2018>

<sup>3</sup> See Sections 3.2.2.3. and 3.4. in ECHA's Technical supporting document to the Draft scenario for the database on articles containing Candidate List substances (available at: [https://echa.europa.eu/documents/10162/24198999/technical\\_annex\\_en.pdf/fd3dd13c-dc53-d5d4-b1ee-015307ed0331](https://echa.europa.eu/documents/10162/24198999/technical_annex_en.pdf/fd3dd13c-dc53-d5d4-b1ee-015307ed0331)).

# 1. Information about you and your organisation

## 1.1 Your details

<b>Contact Name</b> ( <i>mandatory</i> ):	
<b>Organisation / company name</b> ( <i>mandatory</i> ):	
Job title ( <i>optional</i> ):	
Telephone number ( <i>please include if you are available for interview</i> ):	
<b>E-mail address</b> ( <i>mandatory</i> ):	

## 1.2 Your organisation's role

1.2.1 **Please explain your organisation's role relating to the future database** (*mandatory*):

My organisation is a supplier of articles (duty holder)	<input type="checkbox"/>	<i>go to question 1.2.2</i>
My organisation is a waste or recycling company	<input type="checkbox"/>	<i>go to question 1.2.2</i>
My organisation represents other users / stakeholders	<input type="checkbox"/>	<i>Please provide more detail</i>
<i>Please confirm role</i>		<i>go to question 1.2.2</i>

1.2.2 **Please confirm the focus of your input into this survey** (*mandatory*):

My organisation is a trade / membership body representing the views of others	<input type="checkbox"/>	<i>answer 1.2.3 <b>and</b> 1.2.4</i>
I am representing the views of my organisation only	<input type="checkbox"/>	<i>answer question 1.2.3</i>

1.2.3 **Please tell us where your organisation is located** (*mandatory*):

My organisation is based within the EU	<input type="checkbox"/>	
My organisation is based outside of the EU	<input type="checkbox"/>	

1.2.4 **Please tell us where your members are primarily based** (*mandatory for membership/ trade organisations only*):

Our members are based within the EU	<input type="checkbox"/>	
Our members are based outside of the EU	<input type="checkbox"/>	

## 1.3 Further information

1.3.1 **If we require additional information from you regards your area of interest, might you be available for a short, follow up interview?** (*mandatory*)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

If you select "yes", you are consenting to a member of our team contacting you at a future date to schedule a short follow-up interview. You may of course decline at any time.

## 1.4 Anonymisation of your response

By default, we will make anonymous all information relevant to specific individuals, organisations and/or facilities within our reporting and will not pass on the information that you provide to any other party, unless you state otherwise below.

1.4.1 Do you provide your permission for your information to be used without anonymisation in the reporting relating to this survey? Please tick the boxes for the information where you provide your permission.

Your name. job title	<input type="checkbox"/>
Organisation name	<input type="checkbox"/>
Any specific individual sites or facilities referred to in your responses	<input type="checkbox"/>

## 1.5 Please tell us about your area of interest

1.5.1 This survey is split into two further parts to consider and gather stakeholder input on the material classification system (section 2) and safe-use instructions (section 3) to be used within the database.

**Please confirm which category or categories you would like to provide answers on (mandatory):**

I would like to answer questions on the material classification system only	<input type="checkbox"/>	<i>answer section 2 only</i>
I would like to answer questions on the safe-use instructions only	<input type="checkbox"/>	<i>answer section 3 only</i>
I would like to answer questions on both categories	<input type="checkbox"/>	<i>answer section 2 <b>and</b> 3</i>



## 2. Material classification in the database

This section requests feedback from stakeholders on a proposed material classification system to be potentially used by ECHA within their future database. This will be a multi-level approach for classifying materials which aims to be both proportionate for suppliers of articles and appropriate for users of the database (namely waste operators and consumers) to identify articles and material-based waste streams.

Access to the draft material classification using this [link](#).

### 2.1 Material types

2.1.1 Considering the key material type(s) which you / your members deal with, please confirm (with a cross in the relevant box) whether each proposed category is suitable for your/ your members' needs (*mandatory*):

Material type (level 1)	Yes, category is suitable	No, category is not suitable	If you answered "No", please suggest an alternative overarching category in the appropriate cell*:
1. Ceramics	<input type="checkbox"/>	<input type="checkbox"/>	
2. Glass	<input type="checkbox"/>	<input type="checkbox"/>	
3. Leather and raw hides	<input type="checkbox"/>	<input type="checkbox"/>	
4. Metals	<input type="checkbox"/>	<input type="checkbox"/>	
5. Paper and board	<input type="checkbox"/>	<input type="checkbox"/>	
6. Plastics (and polymers)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Rubbers and elastomers	<input type="checkbox"/>	<input type="checkbox"/>	
8. Stone, plaster and cement	<input type="checkbox"/>	<input type="checkbox"/>	
9. Textile fibres and other fibres	<input type="checkbox"/>	<input type="checkbox"/>	
10. Wood and cork	<input type="checkbox"/>	<input type="checkbox"/>	
11. Other	<input type="checkbox"/>	<input type="checkbox"/>	

\*) Alternatively, if you wish to submit an alternative classification in a file, please send this by email to [julius.kreissig@woodplc.com](mailto:julius.kreissig@woodplc.com) and [nikul.pandya@woodplc.com](mailto:nikul.pandya@woodplc.com) referring to your submission in this table.

2.1.2 Please confirm whether the list supplied in 2.1.1 above is, in your opinion, complete (*mandatory*):

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If you answered "No" above, please provide a list of any overarching material categories which you think are missing*:			



\*) Alternatively, if you wish to submit an alternative classification in a file, please send this by email to [julius.kreissig@woodplc.com](mailto:julius.kreissig@woodplc.com) and [nikul.pandya@woodplc.com](mailto:nikul.pandya@woodplc.com) referring to your submission in this table.

## 2.2 Material subcategorization – user needs

We are interested in stakeholder views on the subcategories proposed for each material type (level 1) – the proposed subcategories are shown the proposed material classification system ([access here](#)). In particular, we are interested in views on the level of detail to be potentially provided by suppliers of articles within the material categorisation section of the database. This information should meet the needs of different users, including:

- consumers, allowing for informed purchasing choice and improved waste separation behaviours (based on the material(s) an article is made of);
- professional/industrial end users, allowing for informed purchasing and end of life decisions (based on the material(s) an article is made of); and
- waste operators, including recyclers and reprocessors to consider suitability for further processing and to identify material-based waste streams potentially impacted by articles containing SVHCs in the Candidate List.

2.2.1 **Considering again the key material type(s) present in the articles which you / your members deal with, please consider the proposed subcategories proposed for each material type and answer questions on the level of detail proposed.**

Material type (level 1)	Considering the user needs, are the proposed <u>subcategories</u> for this material type adequate for your industry/sector?			If you answered no, please provide a brief explanation why not and (if possible) specify more suitable alternative subcategories*:
	Yes	No	Not relevant	
1. Ceramics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Leather and raw hides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Paper and board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Plastics (and polymers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Rubbers and elastomers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Stone, plaster and cement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Textile fibres and other fibres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Wood and cork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



11. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
-----------	--------------------------	--------------------------	--------------------------	--

\*) Alternatively, you can submit an alternative classification in a file, as explained in Section 2.1.

## 2.3 Specific feedback from suppliers of articles (including producers and importers) [duty holders]

2.3.1 Considering the proposed material classification system detailed within question 2.2 above ([access here](#)), please confirm whether, at the point of submitting information on articles containing candidate list substances onto the database, the required level information on materials<sup>4</sup> is expected to be available to suppliers of articles?

Material type (level 1)	Is the required level information on materials available to suppliers of articles in your industry/sector?			If you answered no, please briefly explain what information on material classification you <i>will</i> have available to you at the point of registering or updating entries relating to articles (or complex objects) into the database*:
	Yes	No	Not relevant	
1. Ceramics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Leather and raw hides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Paper and board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Plastics (and polymers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Rubbers and elastomers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Stone, plaster and cement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Textile fibres and other fibres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Wood and cork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

\*) Alternatively, you can submit an alternative classification in a file, as explained in Section 2.1.

## 2.4 Further suggestions

2.4.1 Alternative categorisation systems already used

If your organisation or the sector which your organisation is part of, currently uses, or is required to use, a specific named material categorisation system e.g. as current best practice or to meet particular standards,

<sup>4</sup> Please note this question only concerns the proposed material classification in submissions to the database. Other types of information in that submission are not in the scope of this consultation.



please tell us about it here. Please provide a web-link to such information or please send by email to:  
[Julius.Kressig@woodplc.com](mailto:Julius.Kressig@woodplc.com) and [nikul.pandya@woodplc.com](mailto:nikul.pandya@woodplc.com)



### 3. Safe use instructions in the database

The purpose of the following questions is to collect input for the foreseen “safe use instruction” functionality of the database of articles containing SVHCs on the Candidate List. This includes ideas and examples of safe use instructions for the various stages in the article life cycle, including the waste stage. Please be as concrete as possible in your answers. You do not need to resend input on this issue already forwarded in previous consultation rounds.

#### 3.1 Information to ensure safe use of articles under REACH [all stakeholders]

As a starting point, beyond the name of the Candidate List substance, safe use instructions should address possible means of controlling exposure to / release of Candidate List substances in the article(s). ECHA’s implementation of this information requirement will address the current authoritative understanding of this issue, which is that exposure/release along the entire article life cycle, including the waste stage, should be addressed as advised in subchapter 3.4.1 of ECHA’s Guidance on requirements for substances in articles.

In your view, what is the essential safe use instruction information for the following population groups and life cycle steps (fill only in where relevant for you):

<b>Safe use instructions for consumers</b>	
Safe end-use/operation of the article	[add where relevant for you]
Instructions for discarding the article (e.g. indication of a specific waste stream or waste stream to be avoided)	[add where relevant for you]
<b>Safe use instructions for professional/industrial end-users</b>	
Safe end-use/operation of the article (protecting the worker)	[add where relevant for you]
Instructions for correct installation (e.g. cover/coating of a brick flooring to avoid migration of SVHCs)	[add where relevant for you]
Instructions for discarding the article (e.g. indication of a specific waste stream or waste stream to be avoided)	[add where relevant for you]
<b>Safe use instructions for various operators during article service life</b>	
(Re)packaging, transport and storing	[add where relevant for you]
Maintenance, repair, overhaul, and/or reuse	[add where relevant for you]
Further processing of the article and assembly	[add where relevant for you]
<b>Safe use instructions for workers at the waste and recycling stage</b>	
Safe waste separation, collection, transport and storage	[add where relevant for you]

Safe separation/dismantling/preparation of the article (for subsequent reuse, recycling, recovery or other disposal)	[add where relevant for you]
Safe reuse, recycling, recovery or disposal (e.g. incineration and landfill)	[add where relevant for you]

### 3.2 Examples of safe use instructions

Do you have any knowledge of:

- Examples of safe use communication in the article supply chain,
- Existing libraries with standard phrases for safe use instructions for articles, and/or
- Systems which could be relevant for developing such a library? This could e.g. be existing safe use instructions for other physical and chemicals risks, which would also lead to control of SVHC exposure and release.

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

If yes, please provide a web-link to such information or please send by email to: [fmch@cowi.com](mailto:fmch@cowi.com)

### 3.3 Product safety under other legislation [question relevant for producers, importers and suppliers of articles]

#### Risk assessments

If applicable to your organisation or sector, could you please describe how risk assessments are usually carried out (and potentially criteria used) for your products to ensure a high level of protection of the health and safety of persons and of the environment required under product/waste legislation (e.g. General Product Safety Directive 2001/95/EC, Machinery Directive 2006/42/EC, Construction Products Regulation 305/2011, Toy Safety Directive 2009/48/EC) or existing standards, in particular regarding risks resulting from the presence of hazardous substances?

#### Safe product/material design

If applicable to your organisation or sector, could you please describe how safety for human health and the environment are considered at the conception/design stage of the products and/or provide examples of features that are incorporated in the products to ensure their safety?

### 3.4 Other

Please provide any other information you find relevant

**Thank you very much for your time.**





# Appendix D

## Proposed material categories

The following pages include a copy of the material categories and subcategories proposed by ECHA and distributed to stakeholders in order to request feedback.





## Material categories

The revised Waste Framework Directive [2008/98/EC](#) (WFD) gives ECHA, under Art. 9(2) the task of setting up a database of articles that contain Candidate List substances and make available this information to waste treatment operators and consumers.

The Commission document "*Non-paper on the implementation of articles 9(1)(i) and 9(2) of the revised Waste Framework Directive 2008/98/EC*" (CARACAL Doc. CA/45/2019) states that "information relevant to the identification of the article" and where the "name, concentration range and location of the SVHC" is not sufficient, "other information on the safe use of the article, in particular available information that is relevant to ensure proper management of the article as waste" must be communicated to ECHA by suppliers of articles covered by the obligation set out in the WFD Art. 9(1)(i), hereafter called duty holders.

From the definition of article under REACH (Art. 3(3)), articles can be differentiated among themselves based on the function (and uses), chemical composition and physical form (shape, surface or design). If articles have the same function and uses, besides other characteristics related with the shape, information on the material they are made of (partial information on chemical composition) is important, if not essential, to identify a particular article at the stage of making a purchase choice by downstream producers and assemblers, end users (professional and industrial) and consumers. For example, office desk tables' tops have the same function and uses and can only be differentiated by the material they are made of (e.g. plastic, glass, wood) and other characteristics such as dimensions. When articles become waste, they are frequently separated or sorted into material-based waste streams by end users and consumers, and the waste is managed and treated within those streams by waste operators. The identification of the material an article is made of should support waste operators in identifying material-based waste streams impacted by articles containing Candidate List substances. Therefore, such information is relevant for waste operators, professional and industrial end users, and consumers.

For the establishment of the database mentioned in Article 9(2) of the Waste Framework Directive (WFD), information on the material the article is made of is incorporated as a mandatory requirement, because it should be information available, as a matter of course, to duty holders and is considered necessary to identify and differentiate articles and to ensure proper management of articles once they become waste. This type of information is usually part of the technical and quality requirements set out in standards for products. It is available to EU producers of articles, because they are the ones that choose the raw materials for the production of their articles. It should also be available, as a matter of course, to EU importers of articles and to downstream suppliers of articles.

There are product specific and waste legislations which use categories for materials (e.g. food contact materials, list of waste under the Waste Framework Directive ([2008/98/EC](#)), Directive 94/62/EC on packaging and packaging waste), but they are not harmonised. In the context of REACH, the [Chapter R.12: Use description](#) of the Guidance on Information Requirements and Chemical Safety Assessment includes material-based 'Article Categories' (ACs) in the use descriptor system for describing the uses of chemical substances.

The 11 material overarching categories proposed in table below and their subcategories in the subsequent tables have been designed to identify articles based on the type of material they are made of (matrix) and to support proper management of articles once they become waste. The correlation between these proposed categories and the ACs in the ECHA's R12 Guidance and the types of waste in the List of Waste (Decision 2014/955/EU) are shown in the following table:

<b>Category</b>	<b>Correlation to ACs in ECHA's R12 Guidance</b>	<b>Correspondence with codes on the <a href="#">List of Waste</a> (e.g.)</b>
1. Ceramics	AC4	0802, 1012, 1701
2. Glass	AC4	1011, 1501, 1601, 1702, 1912, 2001
3. Leather and raw hides	AC6	0401, 200111
4. Metals	AC7	0201, 0603, 0604, 1003, 1004, 1005, 1006, 1007, 1008, 1101, 1102, 1201, 1501, 1601, 1603, 1608, 1611, 1704, 1910, 1912, 2001
5. Paper and board	AC8	0303, 1501, 1901, 1912, 2001
6. Plastics (and polymers)	AC13	0201, 0702, 1201, 1501, 1601, 1702, 1912, 2001
7. Rubbers and elastomers	AC10	0702, 1912
8. Stone, plaster and cement	AC4	0104, 1012, 1013, 1705, 1912, 2001
9. Textile fibres and other fibres	(AC5)	0402, 0702, 1501, 1912, 2001
10. Wood and cork	AC11	0301, 0302, 0704, 1501, 1702, 1912, 2001
11. Other:	AC0	

DRAFT

## **Subcategories**

In the submissions to the database (referred in WFD Art. 9(2)), the minimum information to be reported for a material an article is made of is at the level of the overarching material categories listed in the table above and the subsequent subcategories, i.e. levels 1 and 2 in the tables below. Further specification of the material according to subcategories of level 3 specified below is only required if available to the submitter. Composite materials will be reported by selecting the basic material categories and/or subcategories the individual materials used in their manufacture or production. Examples for reporting composite materials are provided in the last section of the document.

The subcategories for each main category were developed based on the following sources:

- Reports on the "Materials' Information Platform" (Ökopol, 2015), available at <https://echa.europa.eu/regulations/reach/candidate-list-substances-in-articles> (bottom of webpage)
- 'Combined Nomenclature' or the 'CN' - Annex I to Council Regulation (EEC) No 2658/87, as amended by [Regulation \(EU\) 2018/1602](#)
- Reference documents under the IPPC Directive and the IED (BREFs), available at <http://eippcb.jrc.ec.europa.eu/reference/>
- EU Waste Legislation, listed at <http://ec.europa.eu/environment/waste/legislation/index.htm>, namely:
  - Waste Framework [Directive 2008/98/EC](#)
  - EU legislation on packaging and packaging waste, i.p. [Directive 94/62/EC](#) and Decision [97/129/EC](#)
  - [Directive 2000/53/EC](#) on end-of life vehicles, i.p. Annex II
  - [Directive 2012/19/EU](#) of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE)
  - RoHS Directive [2011/65/EU](#), i.p. Annexes III and IV
- EU product legislation, namely
  - Food Contact Materials Legislation listed at [https://ec.europa.eu/food/safety/chemical\\_safety/food\\_contact\\_materials/legislation\\_en](https://ec.europa.eu/food/safety/chemical_safety/food_contact_materials/legislation_en)
  - Directive [69/493/EEC](#) on crystal glass
  - Regulation (EU) No [1007/2011](#) on textile fibres, i.p. Annex I
- Support documents for [IMDS system](#), available at <https://www.mdssystem.com/imdsnt/faces/login> and for BOMcheck available at <https://www.bomcheck.net/en>
- In addition, for ceramics: *DIN EN 60 672, Breviary Technical ceramics, Association of the German Ceramics Industry* (e.g. [http://www.nonmet.mat.ethz.ch/education/courses/Materialwissenschaft\\_2/brevier.pdf](http://www.nonmet.mat.ethz.ch/education/courses/Materialwissenschaft_2/brevier.pdf))
- Other sources on specific cases (e.g. [Wikipedia](#), after checking information and references therein)

## 1. Ceramics

Example: **Piezoelectric ceramic sensor** (e.g. CN 8541 90 00)

- Category (level 1): Ceramics
  - Subcategory (level 2): Oxide ceramics
    - Subcategory (level 3): Lead zirconium titanate (PZT) ceramics

*Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.*

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
Ceramics			CN 69; BREF document on <a href="#">Ceramic Manufacturing Industry</a> ; Breviary Technical Ceramics, think ceramics – Technische Keramik, Verband der Keramischen Industrie e.V.: <a href="http://www.keramverband.de/brevier_engl/brevier.htm">http://www.keramverband.de/brevier_engl/brevier.htm</a> Directive 2000/53/EC on end-of life vehicles, i.p. Annex II; RoHS Directive <a href="#">2011/65/EU</a> , i.p. Annexes III and IV; Regulation (EC) No <a href="#">1935/2004</a> on food contact materials; Directive <a href="#">84/500/EEC</a> on ceramic articles intended to come into contact with foodstuffs <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Clays / silicate ceramics	<ul style="list-style-type: none"> <li>• Clays</li> </ul>	E.g. CN 6912 00 21, 6912 00 81, 6913 90 10
		<ul style="list-style-type: none"> <li>• Earthenware</li> </ul>	E.g. CN 6912 00 25, 6912 00 85, 6913 90 93
		<ul style="list-style-type: none"> <li>• Porcelain or china</li> </ul>	(incl. quartz, cristobalite, alumina, lithium porcelains) E.g. CN 6910 10 00, 6911 10 00, 6911 90 00, 6913 10 00
		<ul style="list-style-type: none"> <li>• Stoneware</li> </ul>	E.g. CN 6912 00 23, 6912 00 83

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
		<ul style="list-style-type: none"> <li>• Other</li> </ul>	<i>(e.g. steatite, cordierite and mullite)</i> <i>E.g. CN 6912 00 29, 6912 00 89, 6914 90 00</i>
	Oxide ceramics	<ul style="list-style-type: none"> <li>• Aluminium oxide ceramics</li> <li>• Aluminium titanate (ATI) ceramics</li> <li>• Beryllium oxide ceramics</li> <li>• Lead zirconium titanate (PZT) ceramics</li> <li>• Magnesium oxide ceramics</li> <li>• Magnesium titanate ceramics</li> <li>• Titanium dioxide ceramics</li> <li>• Ferroelectric perovskites based ceramics</li> <li>• Zirconium oxide ceramics</li> <li>• Other</li> </ul>	
	Non-oxide ceramics	<ul style="list-style-type: none"> <li>• Silicon carbide ceramics</li> <li>• Boron carbide ceramics</li> <li>• Aluminium nitride ceramics</li> <li>• Boron nitride ceramics</li> <li>• Silicon nitride ceramics</li> <li>• Titanium nitride ceramics</li> <li>• Silicon aluminium oxynitrides (SIALONs)</li> <li>• Other</li> </ul>	
	Frits		
	Refractories		<i>E.g. CN 6902, 6903</i>
			<b><i>(To be combined with selections from the subcategories above)</i></b>
	Fibres		
	Microspheres and particles		<i>E.g. 6914 90 00 (30)</i>
	Coated		

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	<i>Comments</i>
	Glazed		
	Non-glazed		
	Vitrified		
	Enamelled		
	Uncoated		
	Coloured		
	Uncoloured		
	Impregnated or treated (other additive chemical treatment)		
	Composite material		

DRAFT

## 2. Glass

Example 1: **Microwave oven revolving glass plate** (e.g. CN 7013 49 99)

- Category (level 1): Glass
  - Subcategory (level 2): Borosilicate glass
  - Subcategory (level 2): Colourless glass

*Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.*

Example 2: **Coloured glass vase (decoration)** (e.g. CN 7013 99 00)

- Category (level 1): Glass
  - Subcategory (level 2): Soda-lime glass
  - Subcategory (level 2): Other coloured glass

*Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.*

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
Glass			CN 70; BREF document on <a href="#">glass</a> industry; Directive <a href="#">69/493/EEC</a> on crystal glass; Annex VI of <a href="#">Commission Decision 97/129/EC</a> ; RoHS Directive <a href="#">2011/65/EU</a> , i.p. Annexes III and IV <a href="#">Directive 2000/53/EC</a> on end-of life vehicles, i.p.

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
			Annex II Regulation (EC) No <a href="#">1935/2004</a> on food contact materials;  (BREF document on <a href="#">Ceramic Manufacturing Industry</a> ).  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Soda-lime glass		E.g. CN 7004 90 80 (10); 7006 00 90 (40); 7010 90 41; 7013 99 00
	Lead crystal and crystal glass	<ul style="list-style-type: none"> <li>• Category No. 1 (Annex I to Directive <a href="#">69/493/EEC</a>)</li> <li>• Category No. 2 (Annex I to Directive <a href="#">69/493/EEC</a>)</li> <li>• Category No. 3 (Annex I to Directive <a href="#">69/493/EEC</a>)</li> <li>• Category No. 4 (Annex I to Directive <a href="#">69/493/EEC</a>)</li> </ul>	E.g. CN 7013 22/33/41/91
	Borosilicate glass		E.g. 7006 00 90 (25), 7011 10 00, 7017 20 00
	Fused quartz and fused silica glass		E.g. CN 7002 31 00; 7017 10 00; 7020 00 10
	Optical glass		E.g. CN 7001 00 91, 7002 20 10, 7003 12 10, 7003 19 10, 7004 20 10, 7004 90 10, 7006 00 10, 7014 00 00;
	Sintered glass		
	Glass ceramics		E.g. CN 7013 10 00
	Other special glass		E.g. CN 7011, 7017
			<b>(To be combined with selections from the subcategories above)</b>
	Flat glass (rolled and float glass)		E.g. CN 7005, 7006 00 90 (25)



Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
	Glass fibre (incl. optical fibre)		(See e.g. CN 8544)
	Glass wool		E.g. CN 7019
	Microspheres and particles		E.g. CN 7019
	Laminated glass		E.g. CN 7007 21 00
	Green glass		Annex VI of <a href="#">Commission Decision 97/129/EC</a>
	Brown glass		Annex VI of <a href="#">Commission Decision 97/129/EC</a>
	Other coloured glass		E.g. CN 7003 12, 7004 20 10
	Colourless glass		Annex VI of <a href="#">Commission Decision 97/129/EC</a>
	Coated		
	Enamelled		
	Uncoated		e.g. CN 7006
	Impregnated or treated (other additive chemical treatment)		
	Composite material		

DRAFT

### 3. Leather and raw hides

Example 1: **Chamois leather cloth** (e.g. CN 4205 00 90)

- Category (level 1): Leather and raw hides
  - Subcategory (level 2): Chamois leather
  - Subcategory (level 2): Coloured

*Note: Information to be provided until level 2.*

Category (level 1)	Subcategory (level 2)	Comments
Leather and raw hides		CN 41-43; BREF document on <a href="#">Tanning of Hides and Skins</a> ; <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Leather	E.g. CN 4107, 4112, 4113
	Chamois leather	E.g. CN 4114
	Raw hides and skins	E.g. CN 4101, 4102, 4103
	Furskins	E.g. CN 43 01/02/03
	Feathers	E.g. CN 6701 00 00
	Other materials of animal origin, not specified elsewhere	
		<b>(To be combined with selections from the subcategories above)</b>
	Fibres	
	Crust	E.g. 4104 41
	Metallised leather	E.g. CN 4114
	Patent leather	E.g. CN 4114
Laminated leather	E.g. CN 4114	

Category (level 1)	Subcategory (level 2)	Comments
	Coated (other)	
	Uncoated	
	Coloured	
	Uncoloured	
	Impregnated or treated (other additive chemical treatment)	
	Composite material	

DRAFT

#### 4. Metals

Example 1: **Metal blade** (e.g. CN 8214 10 00)

- Category (level 1): Metal
  - Subcategory (level 2): Steel
    - Subcategory (level 3): Stainless steel
  - Subcategory (level 2): Coated and/or plated

*Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.*

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
Metal			CN 26, 28, 71-81;  BREF documents on <a href="#">Ferrous Metals Processing Industry</a> and <a href="#">Non-ferrous Metals Industries</a> ;  <a href="#">Directive 2000/53/EC</a> on end-of life vehicles, i.p. Annex II;  RoHS Directive <a href="#">2011/65/EU</a> , i.p. Annexes III and IV;  <a href="#">Regulation (EU) 2017/821</a> on Conflict Minerals;  Regulation (EC) No <a href="#">1935/2004</a> on food contact materials;  Annex III of <a href="#">Commission Decision 97/129/EC</a> ;  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Iron (and alloys of, except steel)	• Iron, not alloyed	E.g. CN 72/73
		• Ferro-alloy containing copper	E.g. CN 7202

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
		<ul style="list-style-type: none"> <li>Ferro-alloy containing tin</li> <li>Other Ferro-alloy</li> </ul>	
	Steel	<ul style="list-style-type: none"> <li>Carbon steel (Non-alloy steel)</li> <li>Stainless steel</li> <li>Alloy steel (except stainless steel)</li> <li>Steel containing copper</li> <li>Steel containing tin</li> </ul>	<i>E.g. CN 7206, 73</i> <i>E.g. CN 7218, 7304 11/24/41</i> <i>E.g. CN 7224, 7306 50</i>
	Aluminium (and alloys of)	<ul style="list-style-type: none"> <li>Aluminium, not alloyed</li> <li>Aluminium alloy containing lithium</li> <li>Other aluminium alloy</li> </ul>	<i>General: e.g. CN 74-81</i> <i>Specific: e.g. CN 76</i>
	Antimony (and alloys of)		<i>E.g. CN 8110</i>
	Bismuth (and alloys of)		<i>E.g. CN 8106</i>
	Brass	<ul style="list-style-type: none"> <li>Containing bismuth</li> </ul>	<i>E.g. CN 7403 21, 7404 00 91, 7407 21 00, 7408 21 00, 7409 21 00, 7411 21 00</i>
	Bronze	<ul style="list-style-type: none"> <li>Containing bismuth</li> </ul>	<i>E.g. CN 7403 22, 7409 31 00, 7409 39 00</i>
	Cadmium (and alloys of)		<i>E.g. CN 8107</i>
	Cobalt (and alloys of)		<i>E.g. CN 8105</i>
	Copper (and alloys of, except bronze and brass)	<ul style="list-style-type: none"> <li>Copper, not alloyed</li> <li>Copper-alloy containing bismuth</li> <li>Other copper-alloy</li> </ul>	<i>E.g. CN 74</i>
	Lead (and alloys of)	<ul style="list-style-type: none"> <li>Lead, not alloyed</li> <li>Lead alloy</li> </ul>	<i>E.g. CN 78</i>
	Magnesium (and alloys of)		<i>E.g. CN 8104</i>
	Manganese (and alloys of)		<i>E.g. CN 8111</i>
	Molybdenum (and alloys of)		<i>E.g. CN 8102</i>
	Nickel (and alloys of)	<ul style="list-style-type: none"> <li>Nickel, not alloyed</li> <li>Nickel alloy</li> </ul>	<i>E.g. CN 75</i>
	Tantalum (and alloys of)		<i>E.g. CN 8103</i>
	Tin (and alloys of), except bronze	<ul style="list-style-type: none"> <li>Tin, not alloyed</li> <li>Tin alloy</li> </ul>	<i>E.g. CN 80</i>

<b>Category (level 1)</b>	<b>Subcategory (level 2)</b>	<b>Subcategory (level 3)</b>	<b>Comments</b>
	Titanium (and alloys of)		<i>E.g. CN 8108</i>
	Tungsten (and alloys of)		<i>E.g. CN 8101</i>
	Zinc (and alloys of, except brass)	• Zinc, not alloyed	<i>E.g. CN 79</i>
		• Zinc alloy, except brass	
	Zirconium (and alloys of)		<i>E.g. CN 8109</i>
	Other non-ferrous metal (and alloys of)	<ul style="list-style-type: none"> <li>• Rare-earth (and alloys of)</li> <li>• Precious-metal (and alloys of)</li> <li>• Other</li> </ul>	<i>E.g. CN 8112, 2805 30, 7106-11, 2616</i>
			<b><i>(To be combined with selections from the subcategories above)</i></b>
	Fibres		
	Microspheres and particles		
	Metallic glass		
	Enamelled		
	Coated and/or plated		
	Uncoated		
	Coloured metal		
	Impregnated or treated (other additive chemical treatment)		
	Composite material		

## 5. Paper and board

Example 1: **Thermal paper roll** (e.g. CN 4809 90 00 (10))

- Category (level 1): Paper and board
  - Subcategory (level 2): Thermal paper
    - Subcategory (level 3): Virgin pulp
  - Subcategory (level 2): Coated
  - Subcategory (level 2): Uncoloured
  - Subcategory (level 2): Impregnated or treated (other additive chemical treatment)

*Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.*

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
Paper and board			CN 48; BREF documents on <a href="#">Production of Pulp, Paper and Board</a> ; Annex II of <a href="#">Commission Decision 97/129/EC</a> ; Regulation (EC) No <a href="#">1935/2004</a> on food contact materials; <a href="#">Feasibility of a materials' information platform (MIP), ÖKOPOL, 2015</a>
	Printing and writing paper	<ul style="list-style-type: none"> <li>• Virgin pulp</li> <li>• Recovered pulp</li> </ul>	E.g. CN 4802
	Newsprint paper		E.g. CN 4801
	Supercalendered (SC) paper		
	Ultra-Light Weight Coated (ULWC) paper		
	Light Weight Coated (LWC) Paper		
	Medium Weight coated (MWC) paper		

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
	High Weight Coated (HWC) paper		
	Uncoated wood-free		
	Coated wood-free		
	Kraft paper and Kraft wrapping		<i>E.g. CN 4804</i>
	Tissue paper		<i>E.g. CN 4803 00 31/39</i>
	Tracing paper		<i>E.g. CN 4806</i>
	Carbonless paper		
	Carbon paper		<i>E.g. CN 4809</i>
	Glassine/Greaseproof paper		<i>E.g. CN 4806</i>
	Fine paper (uncoated)		
	Fine paper (coated)		
	Filter paper		
	Thermal paper		<i>E.g. CN 4809 90 00 (10), 4811 90 00 (10), 4816 90 00 (10)</i>
	Other speciality paper		
	Non-corrugated fibreboard		<i>Annex II of <a href="#">Commission Decision 97/129/EC</a></i>
	Corrugated fibreboard		<i>Annex II of <a href="#">Commission Decision 97/129/EC</a></i>
	Other paper (not elsewhere specified)		
Other board (not elsewhere specified)			
			<b><i>(To be combined with selections from the subcategories above)</i></b>
	Coated		
	Uncoated		
	Coloured		
	Uncoloured		
	Impregnated or treated (other additive chemical treatment)		
	Composite material		



## 6. Plastics (and polymers)

Example: **Inflatable ball** (e.g. CN 9506 62 00)  
 (main body only; valve and other components not considered in this example)

- Category (level 1): Plastics (and polymers)
  - Subcategory (level 2): Polyvinylchloride (PVC), soft
  - Subcategory (level 2): Thermoplastic
  - Subcategory (level 2): Coloured

*Note: Information to be provided until level 2.*

Category (level 1)	Subcategory (level 2)	Comments
Plastics (and polymers)		CN 39;  BREF document on <a href="#">Polymers</a> .  Annex I of <a href="#">Commission Decision 97/129/EC</a>  Regulation (EC) No <a href="#">1935/2004</a> on food contact materials; Regulation (EU) No <a href="#">10/2011</a> on plastic materials; Regulation (EC) No <a href="#">282/2008</a> on recycled plastic materials; Directive <a href="#">2007/42/EC</a> on regenerated cellulose materials  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Polyethylene, low density (LDPE)	E.g. CN 3901 10 Annex I of <a href="#">Commission Decision 97/129/EC</a>
	Polyethylene, high density (HDPE)	E.g. CN 3901 20 Annex I of <a href="#">Commission Decision 97/129/EC</a>
	Polypropylene (PP)	CN 3902 10 Annex I of <a href="#">Commission Decision 97/129/EC</a>
	Polyisobutylene	CN 3902 20
	Copolymers of ethylene-vinyl acetate	CN 3901 30

<b>Category (level 1)</b>	<b>Subcategory (level 2)</b>	<b>Comments</b>
	Other copolymers of ethylene	<i>E.g. CN 3901 40, 3901 90</i>
	Copolymers of propylene	<i>CN 3902 30</i>
	Polymers and copolymers of olefins, not elsewhere specified	<i>E.g. 3902 90 10/20/90</i>
	Polyvinylchloride (PVC), hard	<i>E.g. CN 3904 10, 3904 21</i> <i>Annex I of <a href="#">Commission Decision 97/129/EC</a></i>
	Polyvinylchloride (PVC), soft	<i>E.g. CN 3904 22</i> <i>Annex I of <a href="#">Commission Decision 97/129/EC</a></i>
	Copolymers of vinyl chloride-vinyl acetate	<i>CN 3904 30</i>
	Other copolymers of vinyl chloride	<i>CN 3904 40</i>
	Polymers and copolymers of vinylidene chloride	<i>CN 3904 50</i>
	Fluoropolymers	<i>E.g. CN 3904 61/69</i>
	Polymers and copolymers of halogenated olefins, not elsewhere specified	<i>E.g. CN 3904 90</i>
	Polystyrene, expansible (EPS)	<i>CN 3903 11</i> <i>Annex I of <a href="#">Commission Decision 97/129/EC</a></i>
	Polystyrene	<i>E.g. CN 3903 19, 3903 19 00 (40)</i>
	Copolymers of styrene-acrylonitrile (SAN)	<i>CN 3903 20</i>
	Copolymers of acrylonitrile-butadiene-styrene (ABS)	<i>CN 3903 30</i>
	Brominated polystyrene	<i>E.g. CN 3903 90 20</i>
	Polymers and copolymers of styrene and its derivatives, not elsewhere specified	<i>E.g. CN 3903 90</i>
	Polyvinyl acetate (PVA)	<i>CN 3905 19</i>
	Copolymers of vinyl acetate	<i>E.g. 3905 29</i>
	Poly(vinyl alcohol)	<i>CN 3905 30</i>
	Other polyvinyl esters and vinyl (co)polymers	<i>CN 3905 91/99</i>
	Poly(methyl methacrylate) (PMMA)	<i>CN 3906 10</i>
	Polyacrylamides, including copolymers	<i>CN 3906 90</i>
	Other acrylic polymers and copolymers, not elsewhere specified	<i>CN 3906 90</i>
	Polyacetals, including copolymers	<i>CN 3907</i>
	Polyether alcohols, including copolymers	<i>CN 3907 20 11/20</i>
	Other polyethers, including copolymers	<i>CN 3907 20 91</i>
	Polycarbonates (PCs), including copolymers	<i>CN 3907 40</i>

Category (level 1)	Subcategory (level 2)	Comments
	Poly(ethylene terephthalate) (PET), including copolymers	CN 3907 61/69 <a href="#">Annex I of Commission Decision 97/129/EC</a>
	Poly(lactic acid)	CN 3907 70
	Other polyesters, not elsewhere specified	E.g. CN 3907 91/99
	Polyimides,	CN 3920 99 21
	Epoxide resins	CN 3907 30
	Alkyd resins	CN 3907 50
	Other polyallyl esters	CN 3907
	Other polyesters	CN 3907 91
	Polyamides, including copolymers	CN 3908
	Silicones (or polysiloxanes), including copolymers	CN 3910
	Urea and thiourea resins	CN 3909 10
	Melamine resins	CN 3909 20
	Other amino-resins	CN 3909 31/39
	Phenolic resins	CN 3909 40
	Polyurethanes	CN 3909 50
	Natural polymers, not elsewhere specified	CN 3913
	Modified natural polymers, not elsewhere specified	CN 3913
	Petroleum resins	CN 3911 10
	Coumarone, indene or coumarone-indene resins and polyterpenes	CN 3911 10
	Polyterpenes	CN 3911
	Polysulphides and polysulphones	CN 3911
	Cellulose and its chemical derivatives (not elsewhere specified)	CN 3912
	Other non-halogenated (co)polymers	
	Other halogenated (co)polymers	
		<b>(To be combined with selections from the subcategories above)</b>
	Thermoplastic	
	Thermoset	
	Water-soluble polymer	

Category (level 1)	Subcategory (level 2)	Comments
	Polyelectrolyte	
	Microspheres and particles, except fibres Foam Coated Uncoated Coloured Uncoloured Impregnated or treated (other additive chemical treatment) Composite material	<i>(To be combined with selections from the subcategories above)</i>

DRAFT

## 7. Rubbers and elastomers

Example: **O-ring** (e.g. CN 4016 93 00)

- Category (level 1): Rubbers and elastomers
  - Subcategory (level 2): Ethylene-propylene-non-conjugated diene rubber (EPDM)
  - Subcategory (level 2): Vulcanised (other)
  - Subcategory (level 2): Uncoloured

*Note: Information to be provided until level 2.*

Category (level 1)	Subcategory (level 2)	Comments
Rubbers and elastomers		CN 40; BREF document on <a href="#">Polymers</a> .  <a href="#">Directive 2000/53/EC</a> on end-of life vehicles, i.p. Annex II  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Natural rubber	CN 4001
	Natural gums	CN 4001 (e.g. balata, gutta-percha, guayule, chicle)
	Styrene-butadiene rubber (SBR)	CN 4002 11
	Carboxylated styrene-butadiene rubber (XSBR)	CN 4002 11
	Butadiene rubber (BR)	CN 4002 20
	Isobutene-isoprene (butyl) rubber (IIR)	CN 4002 31
	Halo-isobutene-isoprene rubber (CIIR or BIIR)	E.g. CN 4002 39
	Chloroprene (chlorobutadiene) rubber (CR)	CN 4002 41/49
	Acrylonitrile-butadiene rubber (NBR)	CN 4002 51/59
	Isoprene rubber (IR)	CN 4002 60

Category (level 1)	Subcategory (level 2)	Comments
	Ethylene propylene rubber (EPR)	<i>E.g. CN 4002 91/99</i>
	Chlorosuphonated polyethylene rubber (CSM)	<i>E.g. CN 4002 91/99</i>
	Fluoropolymer rubber	<i>E.g. CN 4002 91/99</i>
	Ethylene-propylene-non-conjugated diene rubber (EPDM)	<i>CN 4002 70</i>
	Silicone rubber	<i>E.g. CN 4002 91/99</i>
	Urethane rubber (PUR)	<i>E.g. CN 4002 91/99</i>
	Other halogenated rubber	<i>E.g. CN 4002 80/91/99</i>
	Other rubber	<i>E.g. CN 4002 80/91/99</i>
	Hard rubber (e.g. ebonite)	<i>CN 4017</i>
		<b><i>(To be combined with selections from the subcategories above)</i></b>
	Compounded with carbon black or silica	<i>CN 4005 10</i>
	Compounded (other)	<i>e.g. CN 4005</i>
		<b><i>(To be combined with selections from the subcategories above)</i></b>
	Microspheres and particles	
	Foam	
	Latex	
	Coated	
	Uncoated	
	Coloured	
	Uncoloured	
Siliconated vulcanised		
Vulcanised (other)		
Unvulcanised		
Impregnated or treated (other additive chemical treatment)		
Composite material	<i>e.g. reinforced rubber (e.g. CN 4009 11/12, 21/22, 31/32, 41/42)</i>	

## 8. Stone, plaster, and cement

Example: **Granite table top** (e.g. CN 6802 93 10, 9403 90 90)

- Category (level 1): Stone, plaster and cement
  - Subcategory (level 2): Stone (massive)
  - Subcategory (level 2): Uncoated

*Note: Information to be provided until level 2.*

Category (level 1)	Subcategory (level 2)	Comments
Stone, plaster, and cement		CN 25, 68, 71;  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Stone (massive)	E.g. CN 2514, 2515, 2516, 2521
	Precious and semi-precious stone and pearls	E.g. CN 7101 – 7105
	Plaster	E.g. CN 2520 20 00, 6809
	Gypsum	E.g. CN 2520 10 00
	Cement	E.g. CN 6810
	Concrete	E.g. CN 6810
	Expanded minerals	E.g. CN 6806 20
	Artificial stone	E.g. CN 6810
	Mica	E.g. CN 6814
	Mineral agglomerates, grains, and particles	
Stone or rock-wool	E.g. CN 6806 10 00	

Category (level 1)	Subcategory (level 2)	Comments	
	Slag-wool	<i>E.g. CN 6806 10 00</i>	
	Other mineral wools	<i>E.g. CN 6806 10 00</i>	
	Carbon fibres	<i>E.g. CN 6815</i>	
	Other minerals		
		<b><i>(To be combined with selections from the subcategories above)</i></b>	
	Enamelled		
	Coated		
Uncoated			
Coloured			
Uncoloured			
Impregnated or treated (other additive chemical treatment)			
Composite material			

DRAFT



## 9. Textile fibres and other fibres

Example: **Black yarn for hand knitting** (e.g. CN 5511 10 00)

- Category (level 1): Textile fibres and other fibres
  - Subcategory (level 2): Acrylic\*
  - Subcategory (level 2): Coloured
  - Subcategory (level 2): Impregnated or treated (other additive chemical treatment)
    - Subcategory (level 3): Softening treatment

\* Fibre formed of linear macromolecules comprising at least 85 % (by mass) in the chain of the acrylonitrilic pattern (Table 2 of Annex I to Regulation (EU) No [1007/2011](#))

Note: Information to be provided until level 2. Information under level 3 to be provided only if available to the submitter.

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
Textile fibres and other fibres			CN 50-53  Table 1 of Annex I to Regulation (EU) No <a href="#">1007/2011</a>  BREF document on <a href="#">Textiles Industry</a>  <a href="#">Feasibility of a materials' information platform (MIP)</a> , ÖKOPOL, 2015
	Natural fibre of animal origin		Entries 1 to 4 of Annex I to Regulation (EU) No <a href="#">1007/2011</a> CN 50, 51
	Natural fibre of vegetable origin		Entries 5 to 18 of Annex I to Regulation (EU) No <a href="#">1007/2011</a> CN 52, 53
			<b>Synthetic fibre</b>

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
			<p>CN 54-55</p> <p>Table 2 of Annex I to Regulation (EU) No <a href="#">1007/2011</a></p> <p>BREF document on <a href="#">Textiles Industry</a></p> <p><a href="#">Feasibility of a materials' information platform (MIP)</a>, ÖKOPOL, 2015 (<a href="#">Annex VII</a>)</p>
	19. Acetate (cellulose acetate fibre)		Entry 19 (name; description until "wherein") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	20. Alginate		Entry 20 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	21. Cupro (regenerated cellulose fibre)		Entry 21 (name; description until "obtained") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	22. Modal (regenerated cellulose fibre)		Entry 22 (name; description until "obtained") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	23. Protein (fibre obtained from)		Entry 23 (name; description until "natural") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	24. Triacetate (cellulose acetate fibre)		Entry 24 (name; description until "wherein") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	25. Viscose (regenerated cellulose fibre)		Entry 25 (name; description until "obtained") of Annex I to Regulation (EU) No <a href="#">1007/2011</a> e.g. CN 5403 10, 5502 10
	26. Acrylic		Entry 26 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5501 30, 5503 30, 5505 10 50, 5506 30
	27. Chlorofibre		Entry 27 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	28. Fluorofibre		Entry 28 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	29. Modacrylic		Entry 29 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5501 30, 5503 30, 5505 10 50, 5506 30
	30. Polyamide or nylon		Entry 30 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5402
	31. Aramid		Entry 31 (name) of Annex I to Regulation (EU)

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
			No <a href="#">1007/2011</a> E.g. CN 5911 90 99 (50)
	32. Polyimide		Entry 32 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5404 90 90 (20)
	33. Lyocell (regenerated cellulose fibre)		Entry 33 (name; description until "obtained") of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	34. Polylactide		Entry 34 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	35. Polyester		Entry 35 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5402 33
	36. Polyethylene		Entry 36 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	37. Polypropylene		Entry 37 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5402 34
	38. Polycarbamide		Entry 38 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	39. Polyurethane		Entry 39 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	40. Vinylal		Entry 40 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a> E.g. CN 5503 90 00 (20)
	41. Trivinyl		Entry 41 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	42. Elastodiene		Entry 42 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	43. Elastane		Entry 43 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	44. Glass fibre (textile fibre)		Entry 44 (name; Title of Annex I) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	45. Elastomultiester		Entry 45 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	46. Elastolefin		Entry 46 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	47. Melamine		Entry 47 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	48. Fibres obtained from miscellaneous or		Entry 48 (description; Title of Annex I; name: ... e.g. metal (metallic, metallised), ..., paper...) of

Category (level 1)	Subcategory (level 2)	Subcategory (level 3)	Comments
	new materials not listed above (textile fibre), e.g. metal (metallic, metallised), paper		Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	49. Polypropylene/polyamide bicomponent		Entry 49 (name) of Annex I to Regulation (EU) No <a href="#">1007/2011</a>
	Other synthetic fibres		
			<b>(To be combined with selections from the subcategories above)</b>
	Coated		
	Uncoated		
	Bleached		
	Unbleached		
	Coloured		
	Uncoloured		
	Impregnated or treated (other additive chemical treatment)	<ul style="list-style-type: none"> <li>○ Easy-care treatment</li> <li>○ Water-repellent treatment (hydrophobic treatment)</li> <li>○ Softening treatment</li> <li>○ Flame-retardant treatment</li> <li>○ Antistatic treatment</li> <li>○ Mothproofing treatment</li> <li>○ Bactericidal and fungicidal treatment</li> <li>○ Anti-felt treatment</li> <li>○ Treatment with resins</li> <li>○ Other chemical treatment</li> </ul>	
	Composite material		

## 10. Wood and cork

Example: **Office desk table top** (e.g. CN 9403 90 30)

- Category (level 1): Wood and cork
  - Subcategory (level 2): Wood (massive)
  - Subcategory (level 2): Coated
  - Subcategory (level 2): Impregnated or treated (other additive chemical treatment)

*Note: Information to be provided until level 2.*

Category (level 1)	Subcategory (level 2)	Comments
Wood and cork		CN 44-46
		BREF documents on <a href="#">Wood-based Panels Production</a> and <a href="#">Surface Treatment Using Organic Solvents (including Wood and Wood Products Preservation with Chemicals)</a> .
	Wood (massive)	CN 44
	Wood wool	CN 4405
	Wood flour, sawdust	CN 4405
	Chipwood	e.g. 4404 10/20
	Wood fibres	
	Forest residues	
	Cork	CN 45
	Straw	CN 46
	Esparto	CN 46
	Other plaiting materials	CN 46
	Cane	E.g. CN 9403 89
Other materials of vegetal origin, not specified elsewhere		

Category (level 1)	Subcategory (level 2)	Comments
		<b><i>(To be combined with selections from the subcategories above)</i></b>
	Coated	<i>E.g. CN 4403 11/12</i>
	Uncoated	
	Coloured	
	Uncoloured	
	Impregnated or treated (other additive chemical treatment)	<i>E.g. CN 4403 11/12</i>
	Composite material	

DRAFT

## 11. Other

<b>Category (level 1)</b>	<b>Subcategory (level 2)</b>	<b>Comments</b>
Other:	[Free text field] Note: It should not include materials that can be described based on other categories and respective subcategories. Concerning composite or hybrid materials, whenever possible they should be described using the other categories/subcategories as shown in the examples below. Therefore, the submitter should avoid to use this category to cover such materials.	<i>It should be used only to cover materials that cannot be identified by using other categories/subcategories. This also applies to composite and/or hybrid materials.</i>

**Example for articles made of composite materials (Category 11 should not be used)**

Example 1: **Particleboard panel** (e.g. CN 4410 11 90)

- Category (level 1): Wood and cork
  - Subcategory (level 2): Chipwood
  - Subcategory (level 2): Impregnated or treated (other additive chemical treatment)
  - Subcategory (level 2): **Composite material**
  
- Category (level 1): Plastics (and polymers)
  - Subcategory (level 2): Urea and thiourea resins
  - Subcategory (level 2): Thermoset
  - Subcategory (level 2): Impregnated or treated (additive chemical treatment), except coated
  - Subcategory (level 2): **Composite material**

*Note: Information to be provided until level 2. Information under levels 3 and 4 to be provided only if available to the submitter*

Example 2: **Crash helmet (reinforced) shell** (e.g. CN 3926 90 97 (90), 6506 10 80 and/or 8714 10 90 (90))  
(shell body only; skeleton, liners and other components not considered in this example)

- Category (level 1): Plastics (and polymers)
  - Subcategory (level 2): Epoxy resin
  - Subcategory (level 2): Thermoset
  - Subcategory (level 2): Coated
  - Subcategory (level 2): Coloured



- Subcategory (level 2): **Composite material**
- Category (level 1): Glass
  - Subcategory (level 2): Other special glass
  - Subcategory (level 2): Glass fibre
  - Subcategory (level 2): **Composite material**

*Note: Classification to be provided until level 2. Information under levels 3 and 4 to be provided only if available to the submitter.*

DRAFT