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A Joint List of Litter Categories for Marine Macrolitter Monitoring

*Manual for the
application of the
classification system*

Fleet, D., Vlachogianni, T., Hanke, G.
MSFD Technical Group on Marine Litter

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Authors: David Fleet (LKN-SH/DE), Thomais Vlachogianni (MIO-ECSDE/GR), Georg Hanke (JRC/EC)

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Contact information

Name: Georg Hanke
Address: Via Enrico Fermi 2749, I-21027 Ispra (VA), Italy
E-mail: georg.hanke@ec.europa.eu
Tel.: +39 0332 785586

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Abstract

The monitoring of marine macrolitter requires an unambiguous identification of its identity, enabled through an agreed list of litter categories. The Joint List of Litter Categories for Macrolitter Monitoring was prepared by the MSFD Technical Group on Marine Litter (MSFD TG ML), in close collaboration with EU Member States and the Regional Sea Conventions. The list was adopted by the MSFD Coordination Group (November 2019). It provides a comprehensive list of litter types, which occur in the coastal and marine environment. This comprehensive list can be used to enable comparable monitoring of marine litter across the European Seas and beyond, as well as across different compartments of the marine environment.

Foreword

The Marine Directors of the European Union (EU), Accessing Countries, Candidate Countries and EFTA Countries have jointly developed a common strategy for supporting the implementation of the Directive 2008/56/EC, “the Marine Strategy Framework Directive” (MSFD). The main aim of this strategy is to allow a coherent and harmonious implementation of the Directive. Focus is on methodological questions related to a common understanding of the technical and scientific implications of the MSFD. In particular, one of the objectives of the strategy is the development of non-legally binding and practical documents, such as this report, on various technical issues of the Directive.

The MSFD Technical Group on Marine Litter (MSFD TG ML), led by DG ENV and chaired by IFREMER and the EC Joint Research Centre (JRC), is delivering thematic technical reports such as Guidance for Monitoring of Marine Litter, Harm caused by Marine Litter, Identifying Sources of Marine Litter, Riverine Litter Monitoring – Options and Recommendations, Top Marine Beach Litter Items in Europe, EU Marine Beach Litter Baselines and Marine Litter Threshold Values. These thematic reports are targeted to those experts who are directly or indirectly implementing the MSFD in the marine regions.

This Technical Report should further support EU Member States (MS) in the implementation of monitoring programmes and plans of measures to act upon marine litter, but also inform other parties in support of the set-up of comparable monitoring frameworks.

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Authors

This report was prepared by the following authors within the MSFD Technical Group on Marine Litter:

David Fleet, LKN-SH, Germany

Thomais Vlachogianni, MIO-ECSDE, Greece

Georg Hanke, European Commission Joint Research Centre, Italy

1. Introduction

The elaboration of targeted prevention, reduction and mitigation measures for litter found in the coastal and marine environment requires the unambiguous identification of the litter items to assess their amounts, composition, sources and pathways. Therefore, monitoring and assessment of macrolitter in the coastal and marine environment, as provided for in the Marine Strategy Framework Directive (MSFD) (EU 2008) and the MSFD Commission Decision on Methodological Standards (EU 2017), requires a high-resolution classification system for litter items, which enables them to be recorded in a clear, unambiguous, and harmonised way. To ensure consistency, compatibility and comparability of monitoring data, this classification system should be applicable in all marine environmental compartments - namely coastline, surface layer of the water column, seabed and biota - and in all Regional Seas. With marine litter being high on the agenda, also of global frameworks, e.g., under UNEP and G7/G20 assemblies, the approach and the list can also be used for purposes at global scale to enhance harmonization.

The detailed identification and reporting of specific litter categories enable the linking of the monitoring data of marine litter with the sources that need to be addressed. The more detail is recorded during surveys, the greater the value of the data for the determination of sources and the assessment of the effectiveness of abatement measures. This is also important for evaluating the success of the implemented programmes of measures (EU 2019).

The Joint List of Litter Categories has been developed within the MSFD Technical Group on Marine Litter (MSFD TG ML) through iterative discussion rounds and consultations. After presentation to the MSFD working group on Good Environmental Status (GES), it was presented and formally adopted by the MSFD Marine Strategy Coordination Group MSCG on 5.11.2019 (MSFD CIS document: MSCG_25-2019-Minutes_final). The identified need to provide guidance for its application was recognised and led to the development of this manual.

2. Scope and objectives

This document presents the “Joint List of Litter Categories for Macrolitter Monitoring” (hereinafter referred to as the Joint List). This Joint List was prepared by the MSFD TG ML in close collaboration with Member States (MS), the Regional Sea Conventions (RSCs), Non-Governmental Organizations (NGOs) and the European Environmental Agency (EEA). It provides a comprehensive list of litter types (see chapter 10 & Annex 1), which occur in the coastal and marine environment of the European Regional Seas, and beyond. This comprehensive list can be used to build country/regional sea/programme/compartments specific lists, thus enabling comparable monitoring of marine litter across the European Regional Seas and across different compartments of the marine environment.

The Joint List builds upon the “Master List” published in 2013 by the MSFD TG ML (Galgani et al., 2013). The Master List combined the litter types from different marine litter monitoring lists (OSPAR, ICES, UNEP, etc.) into one. Capitalising on the experience obtained by the use of the Master List within the MSFD implementation context, the Joint List has been elaborated, providing an updated, refined and fine-tuned list of litter items that are found in the coastal and marine environment.

The list is compatible with the Commission Decision (EU) 2017/848 (EU 2017), laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment.

Data collected using the Joint List of litter categories will enable the evaluation of the success of measures planned and implemented to reduce marine litter pollution and includes all litter categories mentioned in the EU Directive 2019/904 (EU 2019) on the reduction of the impact of certain plastic products on the environment. The level of detail included in the list also allows for the evaluation of some sources of litter pollution and their relative importance.

More specifically, the Joint List aims to:

- Facilitate the harmonised recording of litter items with sufficient level of detail for assessing macrolitter in the marine environment for the MSFD and pinpointing tailor-made management responses.
- Enable compatibility and comparability of data obtained with marine litter recording schemes that are characterised by different levels of detail, i.e., in different marine litter monitoring programmes or in different compartments of the marine environment. This is achieved through the hierarchical organisation of the different litter types included in the Joint List, where they have been organised into different classes and categories (see section 3).

In the following chapters, the structure of the Joint List is described, and it is explained how the list is intended to be used. Considering that the composition of litter in the marine environment can change over time due to changes in production and consumption patterns, resulting in the introduction of new types of litter and the disuse of others, this document presents a proposal for an updating mechanism. In addition, suggestions for adding a size component to the list are presented.

3. The hierarchical system explained

The Joint List is based on a hierarchical system, which means that litter items characterised by different levels of detail can be recorded and analysed. The lowest level of detail is the type of material a litter item is made of (Tab.1); the highest level of detail can be size classes of individual litter items such as plastic bottles with a volume smaller or bigger than 0.5 l (Figure 1). The different levels of detail are indicated by different colours in Appendices 1 and 2 (see also chapter 6).

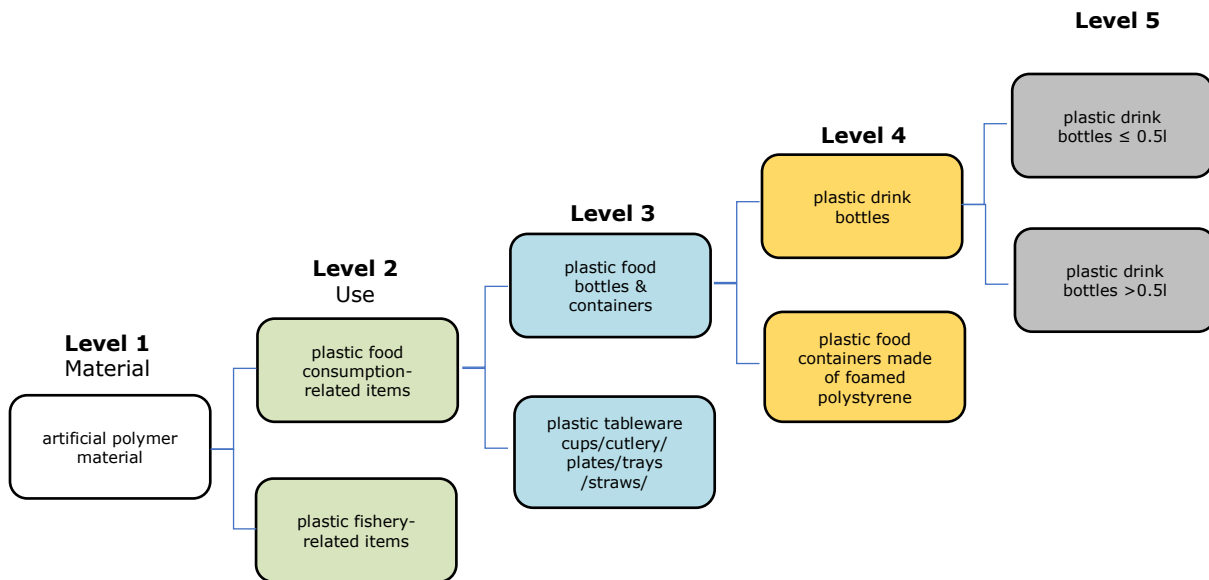


Figure 1: An example of the different levels of the hierarchical system for classifying plastic drink bottles

The litter types of the different levels of the hierarchical system are given unique type-codes constructed from a series of 2-4 letter codes (see chapter 6). The 2-4-letter codes indicate the level of detail. The first level of detail in the list is one of nine material classes, which are in line with the categories defined by the Commission Decision (EU) 2017/848.

A material category “undefined” was not included in the list, because all items found should be attributed to a litter type in one of the material categories. Items made of mixed materials should be attributed to the material classes according to their main component material. The online photo catalogue of the Joint List of Litter Categories (<https://mcc.jrc.ec.europa.eu/main/photocatalogue.py?N=41&O=457&cat=all>) will facilitate this allocation.

Table 1 provides an overview and descriptions of the litter material categories.

Table 1. Material categories used in the Joint List with their letter code.

Type Code	Material Category	Description
ch_	chemicals	Persistent chemicals, which occur as lumps, puddles and balls, e.g. tar balls of different sizes. In field surveys, without chemical analysis, they can only be categorised according to their appearance.
ct_	clothes/textile	Objects and fragments made of fabric, including those made partially or completely of artificial polymer fibres.
fw_	food waste (organic)	Food waste of anthropogenic origin, such as treated and cooked food, fruit and vegetables, but not naturally occurring fruits.
gc_	glass/ceramics	Objects and their fragments, made of glass or ceramic material.
pl_	artificial polymers/plastic	Artificial polymer material, often referred to as plastic, including all types of anthropogenic polymer material, excluding objects attributed to the cloth/textile or the rubber fraction.
pp_	paper/cardboard	Cellulose based man-made objects, paper, cardboard and similar items and their fragments.
ru_	rubber	Objects and fragments made of rubber, including those that are rubber-like or are typically considered to be made of rubber, e.g. rubber boots, tyres.
wo_	processed/worked wood	Worked and/or treated wood, i.e. sawn, planed, painted, impregnated, coated wood, or wood with nails, screws, etc.

As a second level, the list uses 13 so-called “use categories”, to which the litter items on the list are allocated (Tab. 2).

Table 2: Use categories used in the Joint List with their letter code.

Type-code	Name
ag_	agriculture related
aq_	aquaculture related
cl_	clothing
co_	building & construction related
fc_	food consumption related
fi_	fisheries related
hy_	personal hygiene and care related
md_	medical related
nn_	undefined use
re_	recreation related
sm_	smoking related
vk_	vehicle related
hu_	hunting related

The material-use level combinations are marked green in Annex 1. These material-use levels are then divided into increasing levels of detail. In some cases, the type-codes include five levels of increasing detail (see Figures 1 & 2).

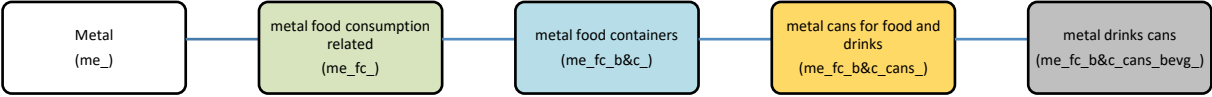


Figure 2: An illustrative example of the five levels of detail leading to the litter type “metal drinks cans”

When analysing marine litter, individual items are always allocated to a litter type, which represents, in nearly all cases, a group of similar litter objects. A simple type of assessment could group litter items at the material level to assess, for example, the prominence of artificial polymer materials. In this assessment type, the marine litter items found would be allocated to one of the material categories. Another simple type of assessment could allocate the marine litter items found to the use categories to assess, for example, the importance of fisheries-related items. Groups of litter items chosen for surveys can be defined in ever more detail, depending on how detailed the information from the survey needs to be. For example, if you wish to find out whether beach recreational activities or other sources are responsible for litter on a beach, you can assess plastic bottles and containers in more detail (Figure 2).

A very high level of detail would be to record all litter items separately and only group them if they are exactly the same (e.g. a plastic shampoo bottle from the same firm, of the same size and containing the same product). This type of detail would not only be time-consuming but also expensive to fund. The grouping of litter items will always be a compromise between cost-efficiency of surveys and added information value. The more information you need, i.e. to assess the efficiency of measures implemented to reduce marine litter, the more detail you will need. Examples of litter type groups are presented in Table 3.

Table 3: Examples of litter type groups

Type-code	Name
bag_	bags
b&c_	bottles & containers
box_	crates, boxes, baskets
cans_	cans
cups_	cups and cup lids
drk_	generally dark-coloured oil-like chemicals
rps_	rope, string, cord
tab_	tableware

The composition of litter also varies among regions. Common items found in one region may be rare finds in another region. The more common a given group of items is, the more sense it makes to divide that group into sub-groups of more similar items in order to obtain more differentiated information on what is recorded, which in turn can be used to assess sources and the efficiency of measures.

An example of this is the differentiation between "string and cord (diameter less than 1 cm)" from "dolly ropes" and "other string and cord (diameter less than 1 cm)" in regions where dolly ropes are used in fishing, to assess the effectiveness of measures aimed at reducing the use of dolly ropes. In areas where dolly ropes are not used, this differentiation would not make sense, and the group designation "string and cord (diameter less than 1 cm)" can be used.

The Joint List allows for the selection of the detail, which is appropriate or necessary for the needs of the monitoring programme.

The recent analyses of litter data to identify most abundant items (Addamo et al., 2017) and EU Baselines (Hanke et al., 2020) have shown that the use of different lists in parallel, particularly when aggregating litter categories in different ways, can hinder data analysis and leads to loss of crucial information when performing spatial data analysis.

4. Litter items descriptions

To ensure that individual types of litter in the Joint List are interpreted and recorded in a harmonised way by different surveyors, clear-cut and comprehensive definitions have been developed (see chapter 10 & Annex 1). These are complemented by a photo guide with multiple images, covering the bandwidth of the described items. Some examples of definitions for selected litter items are presented in Table 4 below.

It should be highlighted that often litter objects are made of mixed materials, e.g. paint brushes, household objects made of metal with plastic handle, or shoes made of textile with rubber sole. The characterization and classification of such items require a practical approach. Based on a visual assessment, the litter items should be attributed to the category belonging to the larger (size/weight estimate) part of the item. While this may lead to difficult decisions in borderline cases, it is important that the item is recorded. Given the overall uncertainty related to quantitative beach litter assessments, an ad hoc decision for either of the categories will be fine in those cases.

Identifiable objects, which have been tied together or bundled before they were disposed of, should be counted as individual items. However, this does not apply to tangled rope and nets nor to litter items that, due to their function, are typically connected, as e.g. lobster pots with attached rope, electrical appliance with cable or bottles with caps.

Table 4: Examples of litter item descriptions

Litter type	Description
Plastic shopping/carrier/grocery bags	Shopping bags are medium-sized bags, typically around 10–20 litres in volume (though much larger versions exist, especially for non-grocery shopping), that are used by shoppers to carry home their purchases. Shopping bags can be made of a variety of plastics; polyethylene (e.g. LDPE, LLDPE) is the most common one. They usually have handles.
Plastic mussels/oysters mesh bag, net sack, sock	A special bag or sack made of extruded net, which is used for growing (underwater) mussels, oysters and other shellfish species. These bags can have different sizes and shapes, e.g., sack-like or tubular, and the mesh net can have a different thickness.
Plastic gloves (household/dishwashing, gardening)	Gloves used to perform household chores such as dishwashing, gardening, etc. They are typically made of different polymers, including latex, nitrile rubber, polyvinyl chloride. Less heavy-duty than industrial gloves.
Plastic string and filaments exclusively from dolly ropes	Strings and filaments from blue, black or orange string that are used to protect bottom trawling nets against wear and tear. A dolly rope consists of around 30 strings; each string has around 25 threads.
Plastic mesh bags for vegetable, fruit and other products	A special mesh bag made of polypropylene, polyethylene or high-density polyethylene used for packaging and transporting agricultural products such as vegetables, fruit, bird feed, etc.
Plastic injection gun containers/cartridges	A cartridge made of plastic for devices that are used to inject grease, silicone, or other fluids.

As a basic principle, pieces of litter that are recognisable as parts or fragments of a litter type should be recorded as such. According to this principle, the aforementioned definitions also include pieces and fragments, which are recognisable as parts of litter types. For example, if a fragment of a plastic shopping bag is found, this should be registered in the litter type J3 "plastic shopping/carrier/grocery bags " and not registered under one of the fragments litter types J79 "fragments of non-foamed plastic 2.5cm \geq \leq 50cm" or J80 "fragments of non-foamed plastic > 50cm".

5. Online Photo Catalogue of the Joint List of Litter Categories

As marine litter can occur in many different shapes, types, degrees of degradation and fragmentation, it is not always easy to attribute items to a given category. In order to facilitate attribution, the MSFD TG ML has developed an “Online Photo Catalogue of the Joint List of Litter Categories”, which is accessible at the MSFD TG ML website at: <https://mcc.jrc.ec.europa.eu/main/photocatalogue.py?N=41&O=457&cat=all>

The catalogue, see screenshots in Fig. 3, features, in many cases multiple, images of each of the litter types on the Joint List. The photos depict the range of different items or fragments which can be recorded under a given litter type. The catalogue is a living project and will be expanded to cover as many items as possible in various environmental matrices.

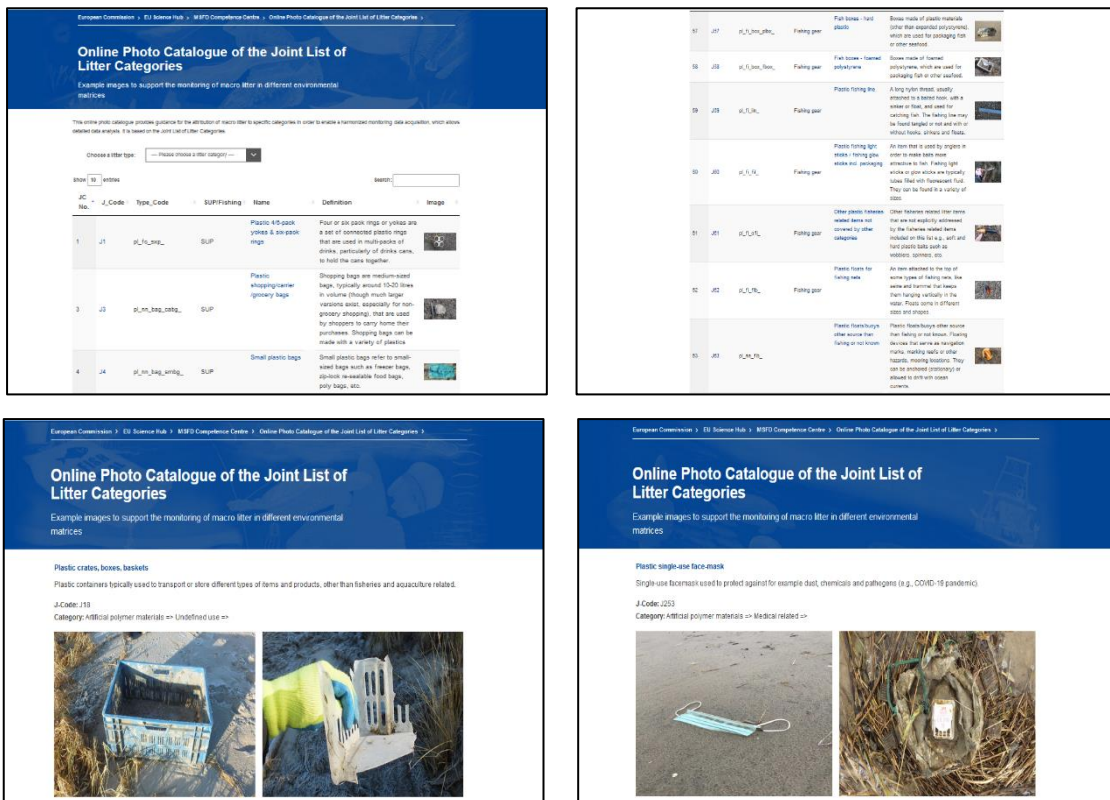


Figure 3: Screenshots from the Online Photo Catalogue of the Joint List of Litter Categories

6. The coding system

The litter types included in the Joint List require unique, unmistakable codes, in order to ensure that they can be compared with well-established data sets and their coding systems, such as the OSPAR-IDs or the Master List G-Codes that were used in the first cycle of the MSFD (Galvani et al., 2013).

A coding system based on 2-4 letter litter codes concatenated with an underscore is used for the Joint List. These codes are combined to produce litter type-codes (see e.g. Tab. 5). These codes are not intended for use on field recording sheets, but for archiving the data and for comparison of data between different monitoring projects.

Table 5: An example of how the coding system works

Litter type-codes	Litter type
pl_	artificial polymer materials
pl_fc_	plastic food consumption related items
pl_fc_b&c_	plastic food consumption related bottles and containers
pl_fc_b&c_dbot_	plastic drink bottles
pl_fc_b&c_dbot_larg_	plastic drink bottles > 0.5 l
pl_fc_b&c_dbot_larg_d_	plastic drink bottles > 0.5 l with size class range 20-30 cm

The use of this coding system allows to easily accommodate the introduction of new litter items if required. It also facilitates the selection of litter types when grouping data for analysis.

The material/use level type-codes are marked in green in Annex 1. These material/use levels are then divided into increasing levels of detail, with associated type-codes. In some cases, the type-codes include five levels of increasing detail (see Figures 1 & 2 and Annex 1).

It is challenging to stick to the hierarchical system for marine litter fragments. Some ongoing monitoring programmes include two size classes, and other programmes do not assess size classes at all. There is also a need to assess fragments of foamed polystyrene and non-foamed plastics separately to assess the effectiveness of measures implemented to reduce foamed polystyrene. The system adopted for assessing fragments, which does not strictly follow the hierarchical system, is presented in Figure 4.

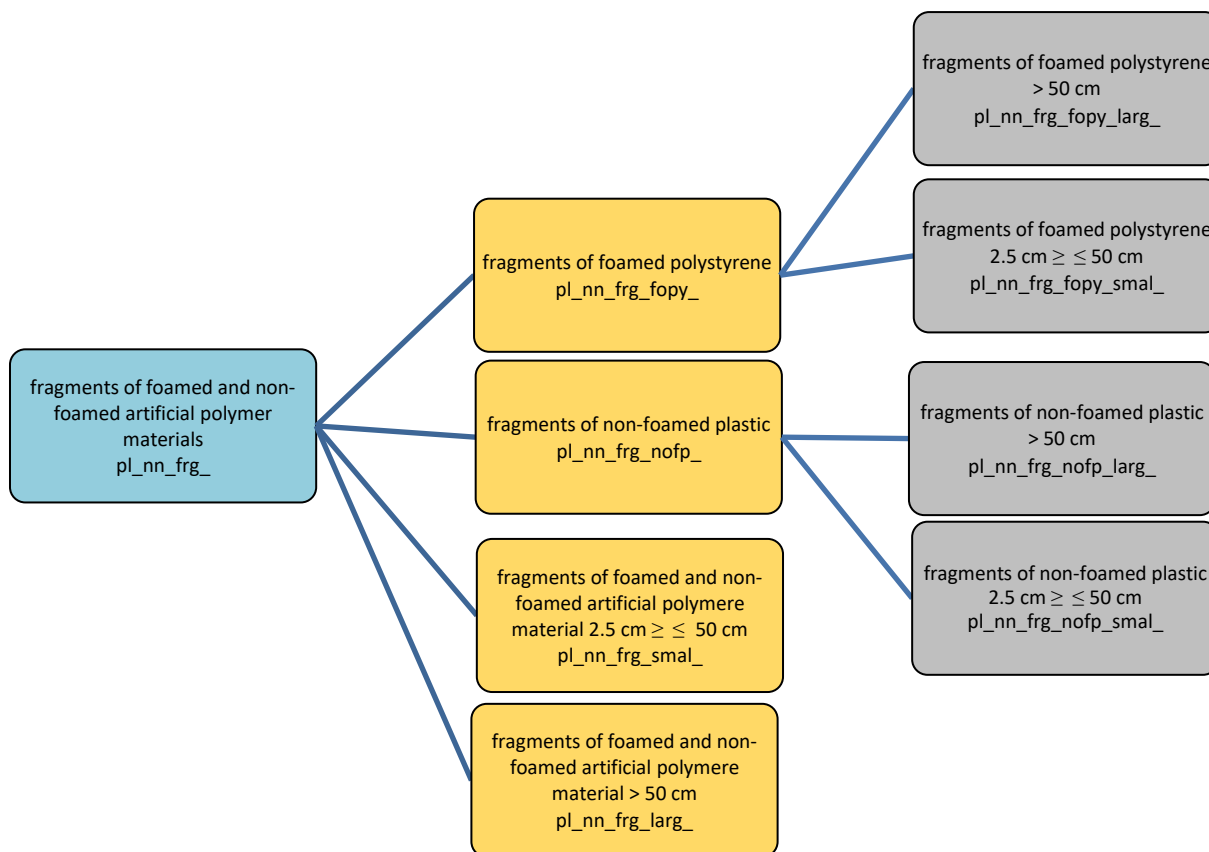


Figure 4: An illustrative example of the hierarchical system for recording marine litter fragments

Type-codes for chemicals, which are included in the litter criteria (D10) in the Commission Decision (EU) 2017/848, are presented in Annex 1. Without chemical analysis, it is not possible to identify the type of chemical involved. Field observations are limited to differentiating chemicals according to colour. Light-coloured chemicals, which include paraffin, can consist of a number of different chemical substances with the common identifier that they are light-coloured, float and do not dissolve readily in seawater. Dark-coloured chemicals, which can include oil, have the common identifier that they are dark-coloured, float and do not dissolve readily in seawater. The type-codes are based on this system.

A material code for organic food waste (fw_), which encompasses all types of non-packaged food and food remains, has been included in the Joint List.

The type-codes for the most detailed level of the litter types are included in Annex 1. These items are given a J-code shown in chapter 10. If the litter types are identical with a litter type which has a G-code, the number from the G-code of the Master List is used for the J-code. The J-code list does not include all G-code litter types because some G-code litter types are at a lower level of detail. The Joint List includes a number of litter-types, which are not on the 'Master List'.

The entire list is available as an EXCEL file and can be downloaded from the MSFD TG ML website under the following link:

https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=434&titre_chap=TG%20Litter. The EXCEL file includes a key to all 2-4-letter codes and a list of type-codes for litter types and groups of litter types. In total, 281 litter types and groups of litter types are included in the Joint List.

7. How to apply the Joint List

For existing monitoring projects, apply the type-codes included in the Joint List to the corresponding litter types you survey, or which are used in your database. It is not necessary to change the codes on your recording sheet as long as the type-codes are attributed to those codes in your data storage system.

For new monitoring projects, it is important that the selection of litter types is linked with policy needs. In most cases, this will mean selecting the highest level of detail available in the Joint List. Produce a field recording sheet – you can use your own codes for the recording sheet, but they need to be allocated to the type-codes in the Joint List in your database.

It is recommended to choose the highest level of detail to record litter during surveys (see chapter 10). It is possible to use less detailed levels if the circumstances do not allow for a high precision (e.g. for floating litter). Less detail, though, will prevent the attribution of litter items to specific sources/activities.

8. The question of size

Marine litter is commonly classified in size classes as follows: macrolitter referring to items above 25 mm in the longest dimension; mesolitter from 5 mm to 25 mm; and microlitter up to 5 mm. The Joint List is designed for the monitoring of macrolitter. It is commonly accepted that the sampling of different marine litter size classes (macro-, meso-, micro-) requires different methodological approaches. A lower size limit, with a description of how it should be applied (e.g. regarding cigarette butts), is defined in the revised guidelines for macrolitter monitoring.

The Joint List is designed to record the number of litter items for the assessment of the composition and amount and, where possible, to identify sources of marine litter. Generally, the list does not differentiate between different sizes of recorded litter items, unless by providing size ranges or referring to items with a specific size (such as bottles) (see exceptions in Tab. 6).

Table 6: Size classes included in the Joint List of Litter Categories

Litter type	Number of size classes	Size classes
Nets and pieces of net	2	2.5 cm \geq \leq 50 cm > 50 cm
Plastic drink bottles	2	\leq 0.5 l > 0.5 l
Non-foamed plastic pieces	2	2.5 cm \geq \leq 50 cm > 50 cm
Foamed polystyrene pieces	2	2.5 cm \geq \leq 50 cm > 50 cm
Other metal pieces	2	2.5 cm \geq \leq 50 cm > 50 cm
Other wood	2	2.5 cm \geq \leq 50 cm > 50 cm
Plastic engine oil bottles & containers	2	2.5 cm \geq \leq 50 cm > 50 cm

Although some litter categories have relatively uniform sizes (e.g., cotton bud sticks, cigarette butts), most litter categories can occur in a range of sizes. For example, plastic drink bottles can be 0.5 l, 1 l or 1.5 l and fishing nets can occur as snippets of net, a couple of cm long, to huge entanglements of nets and rope, which can weigh hundreds of kilograms.

The magnitude of litter items can be recorded in any of the following parameters:

- length (e.g., rope);
- largest dimension in any direction (e.g., floating litter);
- observed area covered in cm², m² when lying on a flat surface (e.g., ICES seabed);
- volume; and
- weight.

None of these size measurements will provide an exact value for the amount of litter recorded during a survey. Volume depends on the state of compression of the litter, weight is influenced by water content as well as contamination with sand and organic material, and cannot be measured accurately, or at all, during surveys if the items are very large. A volume size-class system is included for drink bottles in the Joint List; because it can provide an indication of the source of the litter items (e.g. small bottles taken on to a beach).

Whereas the ICES seabed protocol (Tab. 7) and the floating marine litter size classes (Tab. 8) recommended within the MSFD TG ML Guidance on Monitoring of Marine Litter in European Seas (Galgani et al., 2013) both include size classes for all litter types recorded, this is not the case for existing beach litter monitoring programmes. The size classes of the systems presented in Tables 7 & 8, based respectively on area and length, are not compatible with one another.

Table 7: The six size classes of the ICES seabed protocol used for all recorded items in trawling surveys. The sizes are expressed as area in cm² or m² where the smallest size class is for objects smaller than 25 cm².

Size code	Size unit	Size class
A	cm ²	< 5 * 5 cm = 25 cm ²
B	cm ²	< 10 * 10 cm = 100 cm ²
C	cm ²	< 20 * 20 cm = 400 cm ²
D	cm ²	< 50 * 50 cm = 2500 cm ²
E	cm ²	< 100 * 100 cm = < 10000 cm ² = < 1m ²
F	cm ²	> 100 * 100 cm = > 10000 cm ² = > 1 m ²

Table 8: The six size range classes of the 2013 MSFD TG ML guidelines for floating litter items, based on their size in their largest dimension. The lower size limit for macrolitter surveys of floating litter is 2.5 cm.

Size range classes
2.5 – 5 cm
5 - 10 cm
10 – 20 cm
20 – 30 cm
30 – 50 cm
>50 cm

Including information on the order of magnitude of size for each litter item recorded in the marine environment could facilitate linking litter survey data to mass balances, by using generalised size to mass conversion models. It could also be desirable to be able to compare information on size or mass between different environmental compartments. Size categories from one of the systems could be added to field recording sheets, with the method presented in Table 7 being in use for bottom trawl surveys, while the method in Table 8 is suggested for floating litter surveys. Litter items could then be recorded in size classes for each litter type (see a proposal in Tab. 9). The size-related information could be recorded as an addendum to the litter type code. In order to provide a common unique identifier, it is suggested to add a₋, b₋, c₋, d₋, e₋, f₋, respectively, to the letter code for the 6 size categories presented in Table 9 (see also an example in Tab. 4). This could be integrated into the Joint List of Macrolitter Categories in an application (App) for mobile

devices, e.g. tablet or mobile phone. This would facilitate the harmonised recording and reporting of litter data.

Note that there is no principal upper limit of the considered size range. However, it is important to document in detail exceptionally large items (e.g. stranded shipping containers), if found.

Table 9: Example of including size categories to field protocols.

Litter Type	2.5 – 5 cm	5 - 10 cm	10 – 20 cm	20 – 30 cm	30 – 50 cm	>50 cm
Size code	a	b	c	d	e	f
Plastic sheeting						
Food container						
Plastic straws						

9. A mechanism for updating the Joint List

The harmonised monitoring of macrolitter, based on the listing of agreed litter type categories, requires a mechanism for updating such a list. This entails the addition of national or regional specific subcategories, the removal of type categories that are no longer relevant and the introduction of emerging litter type categories.

The updating of the Joint List is done through a review process, agreed within the MSFD TG ML and in close collaboration with RSCs. The basis for an update is the analysis of existing data, leading to the removal of a litter category, which is so rarely found that it can be regarded as not of sufficient relevance to support large-scale monitoring efforts or the addition of new litter types flagged by a MS or RSC. Updates of the list could be released on annual basis or after completion of an MSFD cycle (6 years).

Litter items which are recorded as "other" under the respective material category, because they are identifiable, but do not fit into a specific litter type category, should be noted in the remarks section of the field protocol. If such items begin to occur regularly, they could be flagged as potential candidates for inclusion in the Joint List.

As a first update of the list, the MSFD TG ML has agreed to add single-use plastic gloves and masks to the Joint List. This was done ad hoc to support the monitoring of these now widely used types of single-use litter.

10. The Joint List of Litter Categories (J-CODE list)

Type-Code	J-Code	G-Code	Name	Definition
CHEMICALS				
ch_nn_drk_	J216		unidentified generally dark-coloured oil-like chemicals	Unidentified generally dark-coloured oil-like chemicals, i.e. no chemical analysis carried out.
ch_nn_lig_	J217		unidentified generally light-coloured paraffin-like chemicals	Unidentified generally light-coloured paraffin-like chemicals, i.e. no chemical analysis carried out.
ch_nn_uch_	J218		unidentified chemicals	Any unidentified chemicals, i.e. no chemical analysis carried out.
Cloth/Textiles				
ct_cl_clg_	J137	G137	clothing	Any type of clothes, garments and headwear made of natural or artificial polymer materials.
ct_cl_ftw_	J138	G138	shoes & sandals made of leather and/or textile	Various types of footwear, such as shoes and sandals made of leather and/or textile.
ct_nn_cpt_	J141	G141	cloth textile carpet & furnishing	Thick woven fabric used for covering the floor or other fabric used for furniture, fittings, and other decorative house accessories such as curtains.
ct_nn_sac_	J140	G140	hessian sacks/packaging	Sacks and other packaging items made of a strong, coarse fabric from hemp or jute (Hessian).
ct_nn_sal_	J143	G143	sails, canvas	A heavy durable cloth made of cotton, hemp, or jute, used for sails, tents, etc.
ct_nn_tex_	J145	G145	other textiles	Other textile items, including pieces of cloth, rags, etc. that are unidentifiable, as well as other identifiable cloth textile items, which do not fit in any other category of this list.
ct_re_bps_	J139	G139	cloth textile backpacks & textile bags	Textile receptacles with an opening at the top, shoulder straps or a handle, used for carrying things.
FOOD WASTE				
fw_	J215	G215	food waste	All types of anthropogenic non-packaged food and food remains.
GLASS/CERAMICS				
gc_co_btc_	J204	G204	glass ceramic construction materials (bricks, tiles, cement)	Any glass and ceramic material which is used for construction purposes such as brick, roof tiles, floor tiles, bricks, cement, etc.
gc_fc_tab_	J203	G203	glass and ceramic tableware (plates/cups/glasses)	Glass or ceramic dishes or dishware used for serving food and dining, plates, cups, glassware, serving dishes and other useful items for practical as well as decorative purposes.
gc_fi_trp_octo_	J207	G207	ceramic or glass octopus pots	Pots made of pottery, weighted with concrete, and typically having a volume of 4 litres. Octopus seeking refuge in the pots can be trapped.
gc_nn_b&c_bott_	J200	G200	glass bottles	Glass or ceramic containers with a narrow neck, used for storing drinks or other liquids. Includes pieces of glass that can be identified as coming from a bottle.

Type-Code	J-Code	G-Code	Name	Definition
gc_nn_b&c_jars_	J201	G201	glass jars	Wide-mouthed cylindrical containers made of glass or pottery, especially used for storing food. Includes pieces of glass that can be identified as coming from a jar.
gc_nn_gfr_	J208	G208	pieces of glass/ceramic (glass or ceramic fragments ≥ 2.5 cm)	Fragments of pottery or glass items that cannot be identified (≥ 2.5 cm).
gc_nn_lit_flbu_	J205	G205	glass fluorescent light tube	A low-pressure mercury-vapour gas-discharge lamp that uses fluorescence to produce visible light.
gc_nn_lit_libu_	J202	G202	glass light bulbs	A glass bulb inserted into a lamp or a socket in a ceiling, which provides light by passing an electric current through a filament or a pocket of inert gas. Includes all types, also halogen, LED, etc.
gc_nn_occ_ocet_	J219		other ceramic items	Other identifiable ceramic items, which do not fit in any other category of this list.
gc_nn_occ_ogli_	J210	G210	other glass items	Other identifiable glass items, which do not fit in any other category of this list.
METAL				
me_co_cab_	J194	G194	metal cables	A thick metal wire or a group of wires usually inside a rubber or plastic covering, which is used to carry electricity or electronic signals.
me_fc_b&c_cans_bevg_	J175	G175	metal drinks cans	Metal containers that are used for storing and selling, e.g. beer or soft drinks.
me_fc_b&c_cans_fcan_	J176	G176	metal food cans	Metal containers that are used for storing and selling food such as beans, soup, fish, corn, etc.
me_fc_tab_	J181	G181	metal tableware (e.g. plates, cups & cutlery)	Metal dishes or dishware used for serving food and dining, including cutlery, plates, cups, serving dishes and other useful items.
me_fi_trp_	J184	G184	metal lobster/crab pots	A portable trap that traps lobsters or crayfish. It can be constructed of wire or metal and netting. An opening permits the lobster or crab to enter a tunnel of netting.
me_fi_wsl_	J182	G182	metal fisheries related weights/sinkers, and lures	fisheries related items such as: weights/sinkers (a metal weight used in conjunction with a fishing lure or hook to increase its rate of sink, anchoring ability, and/or casting distance); lures (any bright artificial bait consisting of metal mounted with hooks and trimmed with feathers).
me_nn_app_	J180	G180	metal appliances (refrigerators, washers, etc.)	Metal (mostly electrical) devices or pieces of equipment designed to perform a specific task such as air conditioners, dishwashers, clothes dryers, freezers, refrigerators, kitchen stoves, water heaters, washing machines, trash compactors, microwave oven, etc.
me_nn_b&c_barl_	J187	G187	metal drums & barrels	Large cylindrical metal containers used for storing or shipping bulk cargo, i.e. oil, chemicals, etc.
me_nn_b&c_cans_aesp_	J174	G174	metal aerosol/spray cans	A type of dispensing system which creates an aerosol mist of liquid particles; used with a can or bottle that contains a payload and propellant under

Type-Code	J-Code	G-Code	Name	Definition
				pressure. Indicative examples of such items are: spray paints, cleaning spray foam, engine oil spray, etc.
me_nn_b&c_cans_ocan_	J188	G188	other metal cans	Other metal containers that are used for storing and selling products that are not food or drinks or paints
me_nn_b&c_cans_ptin_	J190	G190	metal paint tins	Metal containers that are used for paint
me_nn_b&c_lids_	J178	G178	metal bottle caps, lids & pull tabs from cans	Metallic caps and lids from bottles and containers, including the pull tabs from cans
me_nn_bat_	J195	G195	metal household batteries	Small-sized batteries that are typically used in small electronic devices such as flashlights, cameras, etc.
me_nn_foi_	J177	G177	metal foil wrappers, aluminium foil	Thin aluminium sheeting or leaves used, especially, to cover and wrap food.
me_nn_ome_larg_	J199	G199	other metal pieces > 50cm	Other identifiable metal items that are bigger than 50 cm in the longest dimension and do not fit in any other item category of this list.
me_nn_ome_smal_	J198	G198	other metal pieces 2.5cm ≥ ≤ 50cm	Other identifiable metal items that are smaller than 50 cm in the longest dimension and do not fit in any other item category of this list.
me_nn_srp_	J186	G186	metal industrial scrap	Metal resulting from the disuse of metal products such as parts of vehicles, building supplies, and surplus materials.
me_nn_wir_	J191	G191	wire, wire mesh, barbed wire	A metal mesh woven, knitted, welded, expanded, photo-chemically etched or electroformed steel or other (wire mesh); a metal wire with or without clusters of short, sharp spikes set at short intervals along it, used to make fences.
me_re_bbq_	J179	G179	metal disposable BBQs	A single-use barbecue grill made from lightweight aluminium material.
me_vk_prt_	J193	G193	metal vehicle parts / batteries	Any part of a car or other transport vehicle (i.e., boat) made predominantly of metal, including vehicle batteries. Excluding wheels.
ARTIFICIAL POLYMER MATERIALS /PLASTIC				
pl_ag_ghs_	J220		plastic sheeting from greenhouses	Plastic sheeting used to cover greenhouses generated during the construction, renovation, and demolition. This category is possibly only separable from other plastic sheeting by experienced workers.
pl_ag_irg_	J221		plastic irrigation pipes	Plastic irrigation pipes from agriculture generated during construction, renovation, and demolition.
pl_ag_oag_	J222		other plastic items from agriculture	Other plastic items from agriculture generated during construction, renovation, and demolition.
pl_ag_pot_	J90	G90	plastic flower pots	A plastic container in which plants are grown.
pl_ag_tra_	J223		trays for seedlings of foamed plastic	A foamed plastic tray in which seedlings are grown.
pl_aq_shf_oyst_	J46	G46	plastic oyster trays	A special tray made of square mesh used for growing oysters. Trays may be single, double or triple stacked, with or without feet, doors, v-braces and hooks.
pl_aq_shf_sack_	J45	G45	plastic mussels/oyster mesh bags, net sack, socks	A special bag or sack made of extruded net which is used for growing (underwater) oysters and other shellfish species. These bags can have different sizes and shapes, e.g. sack-like and tubular and the mesh net can have different sizes.

Type-Code	J-Code	G-Code	Name	Definition
pl_aq_shf_tahi_	J47	G47	plastic sheeting from mussel culture (Tahitians)	Pieces of plastic sheeting about 50X40 cm which are cut at one end into fringes or stripes, so they look a little like a grass skirt from Hawaii. They are used to protect mussel cultures from animals that feed on mussels.
pl_cl_ftw_flip_	J102	G102	plastic flip-flops	A light sandal made of plastic, with a thong between the big and second toe.
pl_cl_ftw_shoe_	J136	G136	footwear made of plastic - not flip flops	Items of footwear made of plastic - not flip flops.
pl_cl_glv_hogl_	J40	G40	plastic gloves (household/dishwashing, gardening)	Gloves used to do household chores such as dishwashing, gardening, etc. They are typically made of different polymers, including latex, nitrile rubber, polyvinyl chloride. Less heavy-duty than industrial gloves.
pl_cl_glv_ingl_	J41	G41	plastic gloves (industrial/professional applications)	Gloves specifically dedicated to industrial applications, mechanical, engineering, agriculture, fisheries and aquaculture and construction. They are typically made of different polymers, including latex, nitrile rubber, polyvinyl chloride and neoprene.
pl_cl_glv_sugl_	J252		single-use plastic gloves	Single-use plastic gloves used, for example, in relation to the COVID-19 pandemic.
pl_cl_hdw_helm_	J69	G69	plastic hard hats/helmets	A hard or padded protective hat, various types of which are worn by construction workers, workers from offshore installations, soldiers, police officers, motorcyclists, sports players, and others.
pl_co_fom_pain_insu_	J256		foamed plastic insulation, including spray foam	Lightweight cellular foam (mainly foamed PU and PE materials) used especially for insulation (i.e. in walls, roofs, and foundations as thermal insulation and water barrier). Includes spray foam.
pl_co_oco_	J89	G89	plastic construction waste (not foamed insulation)	Plastic waste materials generated during the construction, renovation, and demolition of buildings or structures. These may include drainage pipes, waste pipes, plastic tubes for cables, etc. Not foamed insulation materials.
pl_fc_b&c_dbot_lage_	J8	G8	plastic drink bottles >0.5 l	Plastic bottles and containers with a volume larger than 0.5 litres, used to hold water, juice or other drinks for consumption.
pl_fc_b&c_dbot_sml_	J7	G7	plastic drink bottles ≤ 0.5 l	Plastic bottles and containers with a volume of 0.5 litres or less, used to hold water, juice or other drinks for consumption.
pl_fc_b&c_ffmd_	J224		plastic food containers made of foamed polystyrene	Foamed polystyrene containers used for carrying or storing food, such as fast food containers, lunchboxes, etc.
pl_fc_b&c_lids_drnk_	J21	G21	plastic caps/lids drinks	Plastic caps and lids from bottles and containers, used to hold water, juice or other drinks for consumption
pl_fc_b&c_pfoc_	J225		plastic food containers made of hard non-foamed plastic	Plastic containers used for carrying or storing food, such as fast-food containers, Tupperware, lunchboxes, etc. Made of non-foamed plastic.
pl_fc_sxp_	J1	G1	plastic 4/6-pack yokes & six-pack rings	Four or six-pack rings or yokes are a set of connected plastic rings that are used in multi-packs of drinks, particularly of drinks cans, to hold the cans together.

Type-Code	J-Code	G-Code	Name	Definition
pl_fc_tab_cups_fcup_	J226		cups and cup lids of foamed polystyrene	Single-use cups and their lids for coffee and other drinks; made of foamed polystyrene. They have a wide range of uses in restaurants, bakeries, or catering settings.
pl_fc_tab_cups_hpcp_	J227		cups and lids of hard plastic	Single-use cups and their lids for coffee and other drinks; made of non-foamed artificial polymer materials. They have a wide range of uses in restaurants, bakeries, or catering settings.
pl_fc_tab_cupt_cutl_	J228		plastic cutlery	Single-use knives, forks, and spoons.
pl_fc_tab_cupt_plat_	J229		plastic plates and trays	Single-use plates and trays made of artificial polymer material.
pl_fc_tab_stst_stir_	J230		plastic stirrers	Stirrers are used when serving hot drinks such as tea and coffee or other drinks such as cocktails.
pl_fc_tab_stst_strw_	J231		plastic straws	A drinking straw or drinking tube is a small pipe that allows its user to more conveniently consume a drink.
pl_fc_wrp_cwls_crsp_	J30	G30	plastic crisps packets/sweets wrappers	Plastic food packets and wrappers created and designed in various colours, materials, shapes, sizes and styles for crisp food products (i.e., potato chips, etc.) or sweets (i.e., chocolates, candy, ice-creams, etc.).
pl_fc_wrp_cwls_loly_	J31	G31	plastic lolly & ice-cream sticks	A plastic stick attached to the bottom of a popsicle/lolly/ice-cream or lollypop used as a handle to facilitate the eating process.
pl_fi_bag_hdsa_salt_	J85	G85	plastic commercial salt packaging	Heavy-duty sacks and other containers used for packaging and shipping salt.
pl_fi_box_fbox_	J58	G58	fish boxes - foamed polystyrene	Boxes made of foamed polystyrene, which are used for packaging fish or other seafood.
pl_fi_box_plbx_	J57	G57	fish boxes - hard plastic	Boxes made of plastic materials (other than expanded polystyrene), which are used for packaging fish or other seafood.
pl_fi_bte_	J92	G92	plastic bait containers/packaging	Plastic packaging (pouches, bags) and plastic containers suitable for storing, transporting, selling fishing baits.
pl_fi_fil_	J60	G60	plastic fishing light sticks / fishing glow sticks incl. packaging	An item that is used by anglers in order to make baits more attractive to fish. Fishing light sticks or glow sticks are typically tubes filled with fluorescent fluid. They can be found in a variety of sizes.
pl_fi_flb_	J62	G62	plastic floats for fishing nets	An item attached to the top of some types of fishing nets, like seine and trammel, that keeps them hanging vertically in the water. Floats come in different sizes and shapes.
pl_fi_lin_	J59	G59	plastic fishing line	A long nylon thread, usually attached to a baited hook, with a sinker or float, and used for catching fish. The fishing line may be found tangled or not and with or without hooks, sinkers and floats.
pl_fi_net_larg_	J54	G54	plastic nets and pieces of net > 50cm	Pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish; bigger than 50 cm in the longest dimension.

Type-Code	J-Code	G-Code	Name	Definition
pl_fi_net_smal_	J53	G53	plastic nets and pieces of net 2.5 cm \geq \leq 50 cm	Pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish; smaller than 50 cm in the longest dimension.
pl_fi_net_strg_drop_	J232		plastic string and filaments exclusively from dolly ropes	Strings and filaments from blue, black or orange string that are used to protect bottom trawling nets against wear and tear. A dolly rope consists of around 30 strings; each string has around 25 threads.
pl_fi_net_strg_fish_	J233		other plastic string and filaments exclusively from fishery	Other string and filaments exclusively from fishery.
pl_fi_net_tang_mixd_	J234		plastic tangled nets and rope without dolly rope or mixed with dolly rope	Tangled pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish. They may be found tangled with rope or dolly rope.
pl_fi_net_tang_tadr_	J235		plastic tangled dolly rope	Tangles of blue, black or orange rope that are used to protect bottom trawling nets against wear and tear. A dolly rope consists of around 30 strings; each string has around 25 threads. The dolly rope string as well as the separated threads, can occur in tangles in the marine environment. Tangles of dolly rope should consist entirely of dolly rope.
pl_fi_ofi_	J61	G61	other plastic fisheries related items not covered by other categories	Other fisheries related litter items that are not explicitly addressed by the fisheries related items included on this list, e.g. soft and hard plastic baits such as wobblers, spinners, etc.
pl_fi_trp_crab_	J42	G42	plastic crab/lobster traps (pots) and tops	Stationary plastic traps or pots used to catch crustaceans such as lobsters and crabs. Though the size and shape of the traps may vary, most feature a net covering and a cone-shaped entrance tunnel through which a crab or lobster is enticed with bait but cannot escape from.
pl_fi_trp_octo_	J44	G44	plastic octopus pots	Pots made of plastic or PVC tubing, weighted with concrete, and typically having a volume of 4 litres. Octopus seeking refuge in the pots can be trapped.
pl_hu_car_	J70	G70	plastic shotgun cartridges	A shotgun cartridge is a self-contained cartridge often loaded with multiple metallic "shot", which are small, generally spherical projectiles. The shells consist of a plastic tube mounted on a brass base holding a primer. Also plastic wads from shotgun cartridges can be found on their own.
pl_hy_b&c_bech_	J11	G11	plastic beach use related body care and cosmetic bottles and containers	Bottles and containers of body care and cosmetics products used at the beach such as sunscreen, suntan or after sun lotion, etc.
pl_hy_b&c_obch_	J12	G12	plastic non-beach use related body care and cosmetic bottles and containers	Bottles and containers of body care and cosmetics products such as shampoo, shower gel, toothpaste, perfume and others that are not explicitly used at the beach.
pl_hy_cbs_	J95	G95	plastic cotton bud sticks	A short plastic stick with a small amount of cotton on each end that is used for cleaning, especially the ears. The cotton is usually no-longer attached. The ends are rough when touched, where the cotton was attached. This feature can be used to separate from lolly sticks.

Type-Code	J-Code	G-Code	Name	Definition
pl_hy_com_	J29	G29	plastic combs/hair brushes/sunglasses	Plastic items used for untangling or arranging the hair, as well as plastic glasses tinted to protect the eyes from sunlight or glare.
pl_hy_dap_	J98	G98	plastic diapers/nappies	Basic garments for infants consisting of absorbent synthetic polymer material drawn up between the legs and fastened about the waist, used to retain urine and faeces.
pl_hy_ohy_	J236		other plastic personal hygiene and care items	Other identifiable personal hygiene and care items that do not fit in any other category of this list. Can be made of other materials than artificial polymers.
pl_hy_stt_sant_	J96	G96	plastic sanitary towels/panty liners/backing strips	Sanitary towels/panty liners/backing strips.
pl_hy_stt_tamp_	J144	G144	plastic tampons and tampon applicators	A feminine hygiene product designed to absorb the menstrual flow or a plug of material used to stop a wound or block an opening in the body and absorb blood or secretions. The tampon applicator should be recorded within this category.
pl_hy_tfr_	J97	G97	plastic toilet fresheners	Toilet bowl fresheners, which are attached inside the toilet bowl to keep it smelling fresh.
pl_hy_wws_	J237		plastic wet wipes	A small disposable synthetic cloth treated with a cleansing agent, used especially for personal hygiene.
pl_md_msk_	J253		plastic single-use face-mask	Single-use facemask used to protect against, for example, dust, chemicals and pathogens (e.g., COVID-19 pandemic).
pl_md_omd_	J211	G211	other plastic medical items (swabs, bandaging, adhesive plasters etc.)	Items deemed necessary for the treatment of an illness or injury. These may include swabs, bandaging, adhesive plasters, etc. Can be made of other materials than artificial polymers.
pl_md pha_	J100	G100	plastic medical/ pharmaceuticals containers/tubes/ packaging	A wide variety of artificial polymer packages used for the packaging of a wide variety of pharmaceutical solids, liquids, and gasses. Some of the common primary plastic packages are: blister packs, small bottles and containers, tubes, ampoules, etc.
pl_md_syg_	J99	G99	plastic syringes/needles	A plastic tube with a nozzle and piston or bulb for sucking in and ejecting liquid in a thin stream, used for cleaning wounds or body cavities, or fitted with a hollow needle for injecting or withdrawing fluids. Includes all parts of syringes (e.g. syringe plunger and the metal needle with plastic adapter) found separately.
pl_nn_b&c_clng_	J9	G9	plastic bottles and containers of cleaning products	Bottles and containers of cleaning products such as detergents, toilet cleaners, glass cleaners, etc.
pl_nn_b&c_eoil_larg_	J15	G15	plastic engine oil bottles & containers >50cm	Plastic bottles and containers bigger than 50 cm in any dimension, used for packaging motor oil, engine oil, or engine lubricant.

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_b&c_eoil_smal_	J14	G14	plastic engine oil bottles & containers 2.5 cm \geq 50 cm	Plastic bottles and containers smaller than 50 cm in any dimension, used for packaging motor oil, engine oil, or engine lubricant.
pl_nn_b&c_injn_	J17	G17	plastic injection gun containers/cartridges	A cartridge made of plastic for devices that are used to inject grease, silicone, or other fluids. Includes their nozzles.
pl_nn_b&c_jery_	J16	G16	plastic jerry cans	Large plastic flat-sided containers with a handle used for storing or transporting liquids, typically petrol or water.
pl_nn_b&c_lids_dtgt_	J22	G22	plastic caps/lids chemicals, detergents (non-food)	Plastic caps and lids from bottles and containers of cleaning products (i.e. detergents, toilet cleaners, glass cleaners, etc.) and chemicals.
pl_nn_b&c_lids_olid_	J23	G23	plastic caps/lids unidentified	Plastic caps and lids from unidentified bottles and containers.
pl_nn_b&c_lids_ring_	J24	G24	plastic rings from bottle caps/lids	Plastic structures around the circumference (usually) of the closure that is often found attached below a closure in bottles, jars, and tubs. The bottom part of a cap that breaks off when the cap is screwed off.
pl_nn_b&c_ob&c_	J13	G13	other plastic bottles & containers (drums)	Other plastic bottles and containers such as drums (cylindrical containers) generally used for the transportation and storage of liquids and powders.
pl_nn_bag_cabg_	J3	G3	plastic shopping/carrier/grocery bags	Shopping bags are medium-sized bags, typically around 10–20 litres in volume (though much larger versions exist, especially for non-grocery shopping), that are used by shoppers to carry home their purchases. Shopping bags can be made with a variety of plastics.
pl_nn_bag_dogb_	J101	G101	plastic dog/pet faeces bag	A plastic bag used for picking up and removing the faeces of a dog or other pet.
pl_nn_bag_ends_	J5	G5	the part that remains from tear-off plastic bags	Plastic packing bags are commonly found on the market in packs of 10, 20, 50, etc. This litter item refers to the part that remains after tearing-off the bags.
pl_nn_bag_hdsa_ohds_	J36	G36	other plastic heavy-duty sacks	Non-salt heavy duty plastic sacks for content such as animal feed, fertilizers, garden rubbish, etc.
pl_nn_bag_mesh_vege_	J238		plastic mesh bags for vegetable, fruit and other products	A special mesh bag made out of polypropylene, polyethylene or high-density polyethylene used for packaging and transporting agricultural products such as vegetables, fruit, bird feed, etc.
pl_nn_bag_smbg_	J4	G4	small plastic bags	Small plastic bags refer to small-sized bags such as freezer bags, zip-lock re-sealable food bags, poly bags, etc.
pl_nn_bio_	J91	G91	plastic biomass holder from sewage treatment plants and aquaculture	Plastic Filter Media or Biofiltration Media are small (1-4 cm diameter ca. 1 cm high) usually round plastic items that look a bit like a cake. https://www.bing.com/images/search?q=Plastic+Filter+Media+or+Biofiltration+Media&FORM=HDRSC2
pl_nn_box_	J18	G18	plastic crates, boxes, baskets	Plastic containers typically used to transport or store different types of items and products, other than fisheries and aquaculture related.
pl_nn_buc_	J65	G65	plastic buckets	A roughly cylindrical open container with a handle made of plastic and used to hold and carry liquids

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_cbt_	J93	G93	plastic cable ties	A cable tie (also known as a wire tie, hose tie, steggel tie, zap strap or zip tie, and by the brand names Ty-Rap and Panduit strap) is a type of fastener, for holding items together, primarily electrical cables or wires.
pl_nn_cds_	J84	G84	plastic CDs & DVDs	Small plastic discs (and their keep cases) on which sound and data can be stored (CDs & DVDs).
pl_nn_cpa_shet_	J67	G67	plastic sheets, industrial packaging, sheeting	Large plastic packaging or sheeting used for the protection or covering/wrapping of large cargo objects. Plastic sheeting is used for a variety of industrial and commercial applications. It comes in many sizes, strengths, styles, and colours depending on the application.
pl_nn_fen_	J64	G64	plastic fenders	Plastic cushions (such as foam rubber) placed between a boat and a dock or between two boats to lessen shock and prevent chafing.
pl_nn_fib_	J68	G68	fibre glass items	Items made of fibreglass, a common type of fibre-reinforced plastic using glass fibre. Examples of fibreglass items include water pipes, pods, domes, traffic lights, pieces of boats etc.
pl_nn_flb_	J63	G63	plastic floats/buoys other source than fishing or not known	Plastic floats/buoys other source than fishing or not known. Floating devices that serve as navigation marks, marking reefs or other hazards, mooring locations. They can be anchored (stationary) or allowed to drift with ocean currents.
pl_nn_fom_nfpy_	J239		other foamed plastic items and fragments not made of foamed polystyrene	Items and fragments not made of foamed polystyrene (other than packaging or insulation related) made out of foamed sponge-like plastic, such as mattresses, bathing sponges, etc.
pl_nn_fom_pain_pack_	J257		foamed plastic packaging	Lightweight cellular foam (mainly foamed PU and PE materials) used as a packing material.
pl_nn_frg_fopy_larg_	J83	G83	fragments of foamed polystyrene > 50cm	Fragments of foamed polystyrene that are bigger than 50 cm in the longest dimension and originate from unidentifiable polystyrene items.
pl_nn_frg_fopy_smal_	J82	G82	fragments of foamed polystyrene 2.5 cm \geq 50 cm	Fragments of foamed polystyrene that are bigger than 2.5 cm and smaller than 50 cm in the longest dimension and originate from unidentifiable polystyrene items.
pl_nn_frg_nofp_larg_	J80	G80	fragments of non-foamed plastic > 50cm	Fragments of plastic that are larger than 50 cm in the longest dimension and originate from unidentifiable plastic non-foamed polystyrene items.
pl_nn_frg_nofp_smal_	J79	G79	fragments of non-foamed plastic 2.5cm \geq 50cm	Fragments of plastic that are bigger than 2.5 cm and smaller than 50 cm in the longest dimension and originate from unidentifiable plastic non-foamed polystyrene items.
pl_nn_idp_idfd_	J240		other identifiable foamed plastic items	Items that are made of foamed polystyrene, which are identifiable but do not fit in any other litter type category in this list.
pl_nn_idp_idnf_	J241		other identifiable non-foamed plastic items	Items that are made of non-foamed artificial polymers, which are identifiable but do not fit in any other litter type category in this list.

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_pai_	J166	G166	plastic paint brushes	A brush used for painting, typically consisting of bristles fastened into a wooden or plastic handle. Can be made of a mixture of materials including metal.
pl_nn_pen_	J28	G28	plastic pens and pen lids	Any writing or drawing utensils, their parts and lids, made predominately from artificial polymer materials.
pl_nn_rps_rope_	J49	G49	plastic rope (diameter more than 1cm)	A stout cord of strands of plastic fibres twisted or braided together, with a diameter larger than 1 cm.
pl_nn_rps_strg_nodr_	J242		plastic string and cord (diameter less than 1cm) not from dolly ropes or unidentified	A material consisting of threads made of plastic twisted together to form a thin length, with a diameter smaller than 1 cm; excluding string and cord from dolly ropes.
pl_nn_stb_	J66	G66	plastic strapping bands	Plastic bands and straps used for fastening any type of package. Polypropylene and polyester strapping is the most commonly used plastic strapping on the market. Usually made of quite hard plastic.
pl_nn_tag_	J43	G43	plastic tags (fishing, shipping, farming and industry)	Plastic tags used to mark fish and shellfish such as lobsters and plastic cargo seals (pull-tight) both usually with a serial number. Also animal tags from farming.
pl_nn_tap_	J87	G87	plastic masking/duct/packing tape	Different sorts of plastic adhesive tape: used in painting, to cover areas on which paint is not wanted (masking tape); strong cloth-backed waterproof adhesive tape (duct tape); box-sealing tape, parcel tape or packing tape used for closing or sealing corrugated fibreboard boxes.
pl_nn_tel_	J88	G88	telephone	Mobile phone devices and any other type of telephones.
pl_nn_tfk_	J72	G72	plastic traffic cones	Plastic cone-shaped objects that are used to separate off or close sections of a road.
pl_re_div_	J86	G86	plastic fin trees (from fins for scuba diving)	The plastic supports placed inside diving flippers or fins to keep them in shape.
pl_re_fwo_	J243		plastic remains of fireworks	The plastic remains of fireworks such as caps of rockets, covers for fuses, exploding parts of battery fireworks.
pl_re_toy_	J32	G32	plastic toys and party poppers	Any plastic object that children play with, as well as objects commonly used at parties. Party poppers are small devices used as an amusement at parties, which explode when a string is pulled, ejecting thin paper streamers.
pl_sm_but_	J27	G27	tobacco products with filters (cigarette butts with filters)	A cigarette filter, also known as a filter tip, is a component of a cigarette, placed at the one tip of the cigarette in order to absorb vapours and accumulate particulate smoke components. The filter is commonly made from synthetic plastic cellulose.
pl_sm_lht_	J26	G26	plastic cigarette lighters	Small objects that produce a flame, commonly used for lighting cigarettes or cigars.
pl_sm_tob_	J25	G25	plastic tobacco pouches / plastic cigarette packet packaging	Plastic containers (pouches, boxes) used for cigarettes and tobacco.

Type-Code	J-Code	G-Code	Name	Definition
PAPER/CARDBOARD				
pp_fc_b&c_tpak_milk_	J150	G150	paper cartons/Tetrapak milk	Containers made of carton with a plastic-lining used for milk.
pp_fc_b&c_tpak_otpk_	J151	G151	paper cartons/Tetrapak (non-milk)	Containers made of carton with a plastic-lining used for food products, other than milk.
pp_fc_tab_cups_	J244		paper cups	Cups for coffee and other drinks; made of cardboard. They have a wide range of uses in restaurants, bakeries, or catering settings.
pp_fc_tab_tray_	J245		paper food trays, food wrappers, drink containers	Single-use food trays, food wrappers and drink containers, made of paper.
pp_hy_cbs_	J246		paper cotton bud sticks	A short paper stick with a small amount of cotton on each end that is used for cleaning, especially the ears.
pp_nn_b&c_	J247		other paper containers	Other paper containers.
pp_nn_bag_	J147	G147	paper bags	A small bag made of paper, commonly used as shopping bags, packaging, etc.
pp_nn_box_	J148	G148	cardboard boxes	Boxes made of cardboard (a thick, stiff paper or material containing multiple layers of corrugated paper).
pp_nn_frg_	J156	G156	paper fragments	Fragments of paper items that cannot be identified.
pp_nn_new_	J154	G154	paper newspapers & magazines	Printed publications consisting of paper sheets and containing news, articles, advertisements.
pp_nn_opp_	J158	G158	other paper items	Other identifiable paper and cardboard items, which do not fit in any other category of this list.
pp_re_fwo_	J155	G155	paper tubes and other pieces of fireworks	Small paper/cardboard containers/tubes filled with explosive chemicals that produce bright coloured light patterns or loud noises when they explode (fireworks).
pp_sm_cig_	J152	G152	paper cigarette packets	A rectangular container made of paperboard, used as packaging for cigarettes. It may also include a plastic covering.
RUBBER				
ru_cl_ftw_rubo_	J127	G127	rubber boots	A tall boot that is made of rubber and that keeps the feet and lower legs dry.
ru_hy_con_	J133	G133	rubber condoms (incl. packaging)	A thin rubber sheath, used during sexual intercourse as a contraceptive or as a protection against infection. Within this category also the packaging should be recorded.
ru_nn_bnd_	J131	G131	rubber band (small, for kitchen/household/post use)	A thin, flexible loop that is made of rubber and used to hold things together.
ru_nn_its_rush_	J248		rubber sheet	Rubber sheeting made of rubber (or rubber-like artificial polymer). Rubber sheets are used for varied purposes, e.g. flooring, under shower pans, drainage systems, as lining for water containers and in construction.
ru_nn_oru_	J134	G134	other rubber pieces	Other identifiable rubber pieces, which do not fit in any other category of this list.
ru_nn_tyr_belt_	J249		rubber belts	Rubber belts are elongated rectangular rubber items.

Type-Code	J-Code	G-Code	Name	Definition
ru_re_bln_	J125	G125	rubber balloons	A small, coloured, rubber sack-like object which is inflated with air or gas and then sealed at the neck, used as a child's toy or for decoration. Within this category balloon ribbons, strings, plastic valves and balloon sticks that are or were attached to balloons are included.
ru_re_bls_	J126	G126	rubber balls	A spherical toy ball, usually fairly small, made of elastic material which allows it to bounce against hard surfaces.
ru_vk_its_intu_	J250		rubber inner-tubes	An inflatable usually ring-shaped rubber tube designed for use inside a pneumatic tire.
ru_vk_tyr_tyre_	J251		rubber tyres	Rubber tyres from all types of vehicles.
PROCESSED/WORKED WOOD				
wo_fc_b&c_cork_	J159	G159	wooden corks	A bottle stopper made of cork or a similar material. Note that plastic corks should be recorded under plastic caps and lids
wo_fc_ice_	J165	G165	wooden ice-cream sticks, chip forks, chopsticks, toothpicks	Various wooden sticks, including sticks from ice-creams, small wooden forks from fast food suppliers (chip forks), tapered sticks of wood held together in one hand and used as eating utensils in Asian cuisine (chopsticks), short pointed pieces of wood used for removing bits of food lodged between the teeth (toothpicks).
wo_fi_box_	J164	G164	wooden fish boxes	Boxes made of wood, which are used for storing or transferring fish or other seafood.
wo_fi_trp_	J163	G163	wooden crab/lobster pots	Stationary wooden traps used to catch crustaceans such as lobsters and crabs. Usually covered in a net.
wo_nn_box_	J162	G162	wooden crates, boxes, baskets for packaging	Wooden containers typically used to transport or store different types of items and products. Not fish boxes.
wo_nn_owo_larg_	J172	G172	other processed wooden items > 50cm	Other identifiable processed, worked or treated wooden items larger than 50 cm in the longest dimension, which do not fit in any other category of this list, e.g., planks, boards, beams.
wo_nn_owo_smal_	J171	G171	other processed wooden items 2.5 cm ≥ ≤ 50 cm	Other identifiable processed, worked or treated wooden items smaller than 50 cm in the longest dimension, which do not fit in any other category of this list, e.g. planks, boards, beams.
wo_nn_pal_	J160	G160	wooden pallets	A flat wooden structure on which heavy goods are put so that they can be moved using a fork-lift truck.
wo_re_fwo_	J167	G167	wooden fireworks & matches	A small thin piece of wood or cardboard tipped with flammable chemicals that catch fire with friction (match); any wooden remains of fireworks, e.g. sticks from rockets.

References

- Addamo, A.M., Laroche, P., Hanke, G. (2017). Top Marine Beach Litter Items in Europe, EUR 29249 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-79-87711-7, doi:10.2760/496717, JRC108181
- Cheshire, A.C., Adler, E., Barbière, J., Cohen, Y., Evans, S., Jarayabhand, S., Jeftic, L., Jung, R.T., Kinsey, S., Kusui, E.T., Lavine, I., Manyara, P., Oosterbaan, L., Pereira, M.A., Sheavly, S., Tkalin, A., Varadarajan, S., Wenneker, B., Westphalen, G. (2009). UNEP/IOC Guidelines on Survey and Monitoring of Marine Litter. *UNEP Regional Seas Reports and Studies*, No. 186; IOC Technical Series No. 83: xii + 120 pp.
- EC (2018a). European Commission (2018). COM (2018) 28 final. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A European Strategy for Plastics in a Circular Economy. European Commission, Brussels.
- EC (2018b). European Commission (2018). SWD (2018) 254 final PART 2/3 Commission Staff Working Document Impact Assessment, Reducing Marine Litter: action on single use plastics and fishing gear. European Commission, Brussels.
- EU (2019) Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment.
- Galgani, F., Hanke, G., Werner, S., Oosterbaan, L., Nilsson, P., Fleet, D., Kinsey, S., RC, T., Van Franeker, J., Vlachogianni, T., Scoullou, M., Mira Veiga, J., Palatinus, A., Matiddi, M., Maes, T., Korpinen, S., Budziak, A., Leslie, H., Gago, J., Liebezeit, G., (2013). Guidance on Monitoring of Marine Litter in European Seas. European Commission, Joint Research Centre (2013). MSFD Technical Subgroup on Marine Litter (TSG-ML). EUR 26113; doi: 10.2788/99475.
- Hanke, G., Walvoort, D.J.J, van Loon, W.M.G.M., Addamo, A.M., Brosich, A., del Mar Chaves Montero, M., Jack M.E.M., Vinci, M., Giorgetti, A., (2019). EU Marine Beach Litter Baselines. Analysis of a pan-European 2012-2016 beach litter dataset. TG ML report, EUR30022 EN.
- OSPAR (2010). Guideline for Monitoring Marine Litter on the Beaches in the OSPAR Maritime Area. <https://www.ospar.org/documents?v=7260>

List of abbreviations

CIS	Common Implementation Strategy
D10	Descriptor 10
DG ENV	Directorate-General for Environment
EC	European Commission
EEA	European Environmental Agency
EFTA	European Free Trade Association
EU	European Union
GES	Good Environmental Status
ICES	International Council for the Exploration of the Sea
JRC	Joint Research Centre
ML	Marine Litter
MS	Member States
MSCG	Marine Strategy Coordination Group
MSFD	Marine Strategy Framework Directive
OSPAR	Oslo Paris Convention for the Protection of the North Atlantic and North Sea
RSC	Regional Sea Convention
TG ML	MSFD Technical Group on Marine Litter
UNEP	United Nations Environment Programme

Annex 1: The Joint List litter types and their type-codes

Type-Code	J-Code	G-Code	Name	Definition
ch_nn_			chemicals undefined use	Chemicals undefined use.
ch_nn_drk_	J216		unidentified generally dark-coloured oil-like chemicals	Unidentified generally dark-coloured oil-like chemicals, i.e. no chemical analysis carried out.
ch_nn_drk_grse_			grease	Lubricating grease (only to be included after proof through chemical analysis).
ch_nn_drk_odrk_			other generally dark-coloured oil-like chemicals	Other generally dark-coloured oil-like chemicals, includes e.g. Tall oil, also called "liquid rosin" (only to be included after proof through chemical analysis).
ch_nn_drk_oita_		G214	oil & tar	oil & tar
ch_nn_drk_oita_oils_			oil	All types of oil usually found as viscous droplets or mats, e.g. on a beach (only to be included after proof through chemical analysis). This is usually the sludge that remains after centrifuging heavy fuel oil before use as fuel by ships. It can also be crude oil, from loss of cargo, as well as hydraulic oil.
ch_nn_drk_oita_tars_			tar	Tar is the name for any oil that has been in the marine environment for such a length of time that the more volatile components have evaporated - usually more dry than oil, but there is a smooth transition between oil and tar (only to be included after proof through chemical analysis).
ch_nn_lig_	J217		unidentified generally light-coloured paraffin-like chemicals	Unidentified generally light-coloured paraffin-like chemicals, i.e. no chemical analysis carried out.
ch_nn_lig_olig_			other generally light-coloured paraffin-like chemicals (only to be included after proof through chemical analysis)	Other generally light-coloured paraffin-like chemicals, e.g. ethylene-oligomers.
ch_nn_lig_pfwa_		G213	paraffin wax	All types of paraffin wax, refined or less refined. "Paraffin" and "wax" are often used as synonyms for paraffin wax! Paraffin wax is always a mixture of n-alkanes and, depending on the degree of purity, various secondary components, which can vary greatly.
ch_nn_lig_voil_			vegetable oil	Vegetable oil, such as palm oil (only to be included after proof through chemical analysis).
ch_nn_uch_	J218		unidentified chemicals	Any unidentified chemicals, i.e. no chemical analysis carried out.
ct_cl_		G135	cloth textile clothing, footwear, headwear, gloves	Cloth textile clothing, footwear, headwear, gloves.
ct_cl_clg_	J137	G137	clothing	Any type of clothes, garments and headwear made of natural or artificial polymer materials.
ct_cl_ftw_	J138	G138	shoes & sandals made of leather and/or textile	Various types of footwear such as shoes and sandals made of leather and/or textile.

Type-Code	J-Code	G-Code	Name	Definition
ct_nn_			cloth textile undefined use	Cloth textile undefined use.
ct_nn_cpt_	J141	G141	cloth textile carpet & furnishing	Thick woven fabric used for covering the floor or other fabric used for furniture, fittings, and other decorative house accessories such as curtains.
ct_nn_sac_	J140	G140	hessian sacks/packaging	Sacks and other packaging items made of a strong, coarse fabric from hemp or jute (Hessian).
ct_nn_sal_	J143	G143	sails, canvas	A heavy durable cloth made of cotton, hemp, or jute, used for sails, tents, etc.
ct_nn_tex_	J145	G145	other textiles	Other textile items, including pieces of cloth, rags, etc. that are unidentifiable, as well as other identifiable cloth textile items, which do not fit in any other category of this list.
ct_re_			recreation related cloth and textile items	Recreation related cloth and textile items.
ct_re_bps_	J139	G139	cloth textile backpacks & textile bags	Textile receptacles with an opening at the top, shoulder straps or a handle, used for carrying things.
fw_	J215	G215	organic food waste	All types of non-packaged food and food remains.
gc_co_			glass ceramic construction related waste	Glass ceramic construction related.
gc_co_btc_	J204	G204	glass ceramic construction materials (bricks, tiles, cement)	Any glass and ceramic material which is used for construction purposes such as brick, roof tiles, floor tiles, bricks, cement, etc.
gc_fc_			food consumption related glass and ceramic items	Food consumption related glass and ceramic items.
gc_fc_tab_	J203	G203	glass and ceramic tableware (plates/cups/glasses)	Glass or ceramic dishes or dishware used for serving food and dining, plates, cups, glassware, serving dishes and other useful items for practical as well as decorative purposes.
gc_fi_			glass and ceramic fisheries related items	Glass and ceramic fisheries related items.
gc_fi_trp_			glass and ceramic lobster/crab/octopus pots and traps	Glass and ceramic lobster/crab/octopus pots and traps.
gc_fi_trp_octo_	J207	G207	ceramic or glass octopus pots	Pots made of pottery, weighted with concrete, and typically having a volume of 4 litres. Octopus seeking refuge in the pots can be trapped.
gc_nn_			glass ceramic undefined use	Glass ceramic undefined use.
gc_nn_b&c_			glass ceramic bottles & containers	Glass ceramic bottles & containers.
gc_nn_b&c_bott_	J200	G200	glass bottles	Glass or ceramic containers with a narrow neck, used for storing drinks or other liquids. Includes pieces of glass that can be identified as coming from a bottle.
gc_nn_b&c_jars_	J201	G201	glass jars	Wide-mouthed cylindrical containers made of glass or pottery, especially used for storing food. Includes pieces of glass that can be identified as coming from a jar.

Type-Code	J-Code	G-Code	Name	Definition
gc_nn_gfr_	J208	G208	pieces of glass/ceramic (glass or ceramic fragments ≥ 2.5 cm)	Fragments of pottery or glass items that cannot be identified (≥ 2.5 cm).
gc_nn_lit_			glass light bulbs and fluorescent light tubes	Glass light bulbs and fluorescent light tubes.
gc_nn_lit_flbu_	J205	G205	glass fluorescent light tube	A low-pressure mercury-vapour gas-discharge lamp that uses fluorescence to produce visible light.
gc_nn_lit_libu_	J202	G202	glass light bulbs	A glass bulb inserted into a lamp or a socket in a ceiling, which provides light by passing an electric current through a filament or a pocket of inert gas. Includes all types, also halogen, LED, etc.
gc_nn_occ_			other glass or ceramic items	Other identifiable ceramic items, which do not fit in any other category of this list.
gc_nn_occ_ocet_	J219		other ceramic items	Other identifiable ceramic items, which do not fit in any other category of this list.
gc_nn_occ_ogli_	J210	G210	other glass items	Other identifiable glass items, which do not fit in any other category of this list.
me_co_			metal construction related waste	Metal construction related waste.
me_co_cab_	J194	G194	metal cables	A thick metal wire or a group of wires usually inside a rubber or plastic covering, which is used to carry electricity or electronic signals.
me_fc_			metal food consumption related	Metal food consumption related.
me_fc_b&c_			metal food containers	Metal food containers.
me_fc_b&c_cans_			metal cans for food and drink	Metal cans for food and drink.
me_fc_b&c_cans_bevg_	J175	G175	metal drinks cans	Metal containers that are used for storing and selling, e.g. beer or soft drinks.
me_fc_b&c_cans_fcan_	J176	G176	metal food cans	Metal containers that are used for storing and selling food such as beans, soup, fish, corn, etc.
me_fc_tab_	J181	G181	metal tableware (e.g. plates, cups & cutlery)	Metal dishes or dishware used for serving food and dining, including cutlery, plates, cups, serving dishes and other useful items.
me_fi_			metal fisheries related	Metal fisheries related.
me_fi_trp_	J184	G184	metal lobster/crab pots	A portable trap that traps lobsters or crayfish. It can be constructed of wire or metal and netting. An opening permits the lobster or crab to enter a tunnel of netting.
me_fi_wsl_	J182	G182	metal fisheries related weights/sinkers, and lures	fisheries related items such as: weights/sinkers (a metal weight used in conjunction with a fishing lure or hook to increase its rate of sink, anchoring ability, and/or casting distance); lures (any bright artificial bait consisting of metal mounted with hooks and trimmed with feathers).
me_nn_			metal undefined use	Metal undefined use.

Type-Code	J-Code	G-Code	Name	Definition
me_nn_app_	J180	G180	metal appliances (refrigerators, washers, etc.)	Metal (mostly electrical) devices or pieces of equipment designed to perform a specific task such as air conditioners, dishwashers, clothes dryers, freezers, refrigerators, kitchen stoves, water heaters, washing machines, trash compactors, microwave oven, etc.
me_nn_b&c_			metal bottles & containers	Metal bottles & containers.
me_nn_b&c_barl_	J187	G187	metal drums & barrels	Large cylindrical metal containers used for storing or shipping bulk cargo, i.e. oil, chemicals, etc.
me_nn_b&c_cans_			metal cans other than for food and drink	Metal cans.
me_nn_b&c_cans_aesp_	J174	G174	metal aerosol/spray cans	A type of dispensing system which creates an aerosol mist of liquid particles; used with a can or bottle that contains a payload and propellant under pressure. Indicative examples of such items are: spray paints, cleaning spray foam, engine oil spray, etc.
me_nn_b&c_cans_ocan_	J188	G188	other metal cans	Other metal containers that are used for storing and selling products that are not food or drinks or paints
me_nn_b&c_cans_ptin_	J190	G190	metal paint tins	Metal containers that are used for paint
me_nn_b&c_lids_	J178	G178	metal bottle caps, lids & pull tabs from cans	Metallic caps and lids from bottles and containers, including the pull tabs from cans
me_nn_bat_	J195	G195	metal household batteries	Small-sized batteries that are typically used in small electronic devices such as flashlights, cameras, etc.
me_nn_foi_	J177	G177	metal foil wrappers, aluminium foil	Thin aluminium sheeting or leaves used, especially, to cover and wrap food.
me_nn_ome_		G197	other metal objects	Other metal objects.
me_nn_ome_larg_	J199	G199	other metal pieces > 50cm	Other identifiable metal items that are bigger than 50 cm in the longest dimension and do not fit in any other item category of this list.
me_nn_ome_smal_	J198	G198	other metal pieces 2.5cm ≥ ≤ 50cm	Other identifiable metal items that are smaller than 50 cm in the longest dimension and do not fit in any other item category of this list.
me_nn_srp_	J186	G186	metal industrial scrap	Metal resulting from the disuse of metal products such as parts of vehicles, building supplies, and surplus materials.
me_nn_wir_	J191	G191	wire, wire mesh, barbed wire	A metal mesh woven, knitted, welded, expanded, photo-chemically etched or electroformed steel or other (wire mesh); a metal wire with or without clusters of short, sharp spikes set at short intervals along it, used to make fences.
me_re_			metal recreation related items	Metal recreation related items.
me_re_bbq_	J179	G179	metal disposable BBQs	A single-use barbecue grill made from lightweight aluminium material.
me_vk_			metal vehicle related items	Metal vehicle related items.

Type-Code	J-Code	G-Code	Name	Definition
me_vk_prt_	J193	G193	metal vehicle parts / batteries	Any part of a car or other transport vehicle (i.e., boat) made predominantly of metal, including vehicle batteries. Excluding wheels.
me_vk_whl_	J130	G130	wheels with metal hub	A circular object that revolves on an axle and is fixed below a vehicle or other object to enable it to move easily over the ground. Includes the hub with the tyre or just the hub.
pl_ag_			plastic waste from agriculture	Plastic waste from agriculture and horticulture.
pl_ag_ghs_	J220		plastic sheeting from greenhouses	Plastic sheeting used to cover greenhouses generated during the construction, renovation, and demolition. This category is possibly only separable from other plastic sheeting by experienced workers.
pl_ag_irg_	J221		plastic irrigation pipes	Plastic irrigation pipes from agriculture generated during construction, renovation, and demolition.
pl_ag_oag_	J222		other plastic items from agriculture	Other plastic items from agriculture generated during construction, renovation, and demolition.
pl_ag_pot_	J90	G90	plastic flower pots	A plastic container in which plants are grown.
pl_ag_tra_	J223		trays for seedlings of foamed plastic	A foamed plastic tray in which seedlings are grown.
pl_aq_			plastic from aquaculture	Plastic from aquaculture.
pl_aq_shf_			plastic equipment for holding or protecting shellfish	Plastic equipment for holding or protecting shellfish.
pl_aq_shf_oyst_	J46	G46	plastic oyster trays	A special tray made of square mesh used for growing oysters. Trays may be single, double or triple stacked, with or without feet, doors, v-braces and hooks.
pl_aq_shf_sack_	J45	G45	plastic mussels/oyster mesh bags, net sack, socks	A special bag or sack made of extruded net which is used for growing (underwater) oysters and other shellfish species. These bags can have different sizes and shapes, e.g. sack-like and tubular and the mesh net can have different sizes.
pl_aq_shf_tahi_	J47	G47	plastic sheeting from mussel culture (Tahitians)	Pieces of plastic sheeting about 50X40 cm which are cut at one end into fringes or stripes, so they look a little like a grass skirt from Hawaii. They are used to protect mussel cultures from animals that feed on mussels.
pl_cl_		G135	plastic clothing, footwear, headwear, gloves	Plastic clothing, footwear, headwear, gloves.
pl_cl_ftw_		G71	footwear made of plastic materials	Shoes/sandals/flipflops made of plastic materials.
pl_cl_ftw_flip_	J102	G102	plastic flip-flops	A light sandal made of plastic, with a thong between the big and second toe.
pl_cl_ftw_shoe_	J136	G136	footwear made of plastic - not flip flops	Items of footwear made of plastic - not flip flops.
pl_cl_glv_		G39	plastic gloves	Plastic gloves.

Type-Code	J-Code	G-Code	Name	Definition
pl_cl_glv_hogl_	J40	G40	plastic gloves (household/dishwashing, gardening)	Gloves used to do household chores such as dishwashing gardening, etc. They are typically made of different polymers, including latex, nitrile rubber, polyvinyl chloride. Less heavy-duty than industrial gloves.
pl_cl_glv_ingl_	J41	G41	plastic gloves (industrial/professional applications)	Gloves specifically dedicated to industrial applications, mechanical, engineering, agriculture, fisheries and aquaculture and construction. They are typically made of different polymers, including latex, nitrile rubber, polyvinyl chloride and neoprene.
pl_cl_glv_sugl_	J252		single-use plastic gloves	Single-use plastic gloves used for example in relation to the COVID-19 pandemic.
pl_cl_hdw_			plastic headwear	Plastic headwear.
pl_cl_hdw_helm_	J69	G69	plastic hard hats/helmets	A hard or padded protective hat, various types of which are worn by construction workers, workers from offshore installations, soldiers, police officers, motorcyclists, sports players, and others.
pl_co_			plastic construction related waste	Plastic construction waste.
pl_co_fom_pain_insu_	J256		foamed plastic insulation including spray foam	Lightweight cellular foam (mainly foamed PU and PE materials) used especially for insulation (i.e., in walls, roofs, and foundations as thermal insulation and water barrier). Includes spray foam.
pl_co_oco_	J89	G89	plastic construction waste (not foamed insulation)	Plastic waste materials generated during the construction, renovation, and demolition of buildings or structures. These may include drainage pipes, waste pipes, plastic tubes for cables, etc. Not foamed insulation materials.
pl_fc_			plastic food consumption related items	Plastic food consumption related items.
pl_fc_b&c_		G10	plastic food bottles & containers	Plastic food bottles & containers.
pl_fc_b&c_dbot_			plastic drink bottles	Plastic drink bottles.
pl_fc_b&c_dbot_lage_	J8	G8	plastic drink bottles >0.5 l	Plastic bottles and containers with a volume larger than 0.5 litres, used to hold water, juice or other drinks for consumption.
pl_fc_b&c_dbot_sml_	J7	G7	plastic drink bottles ≤ 0.5 l	Plastic bottles and containers with a volume of 0.5 litres or less, used to hold water, juice or other drinks for consumption.
pl_fc_b&c_ffmd_	J224		plastic food containers made of foamed polystyrene	Foamed polystyrene containers used for carrying or storing food, such as fast food containers, lunchboxes, etc.
pl_fc_b&c_lids_drnk_	J21	G21	plastic caps/lids drinks	Plastic caps and lids from bottles and containers, used to hold water, juice or other drinks for consumption
pl_fc_b&c_pfoc_	J225		plastic food containers made of hard non-foamed plastic	Plastic containers used for carrying or storing food, such as fast-food containers, Tupperware, lunchboxes, etc. Made of non-foamed plastic.
pl_fc_sxp_	J1	G1	plastic 4/6-pack yokes & six-pack rings	Four or six-pack rings or yokes are a set of connected plastic rings that are used in multi-packs of drinks, particularly of drinks cans, to hold the cans together.

Type-Code	J-Code	G-Code	Name	Definition
pl_fc_tab_			plastic tableware/cups/cutlery/plates/trays/straws/stirrers	Plastic tableware cups/cutlery/plates/trays/straws/stirrers.
pl_fc_tab_cups_		G33	plastic cups and cup lids	Plastic cups and cup lids of foamed or non-foamed artificial polymer materials.
pl_fc_tab_cups_fcup_	J226		cups and cup lids of foamed polystyrene	Single-use cups and their lids for coffee and other drinks; made of foamed polystyrene. They have a wide range of uses in restaurants, bakeries, or catering settings.
pl_fc_tab_cups_hpcp_	J227		cups and lids of hard plastic	Single-use cups and their lids for coffee and other drinks; made of non-foamed artificial polymer materials. They have a wide range of uses in restaurants, bakeries, or catering settings.
pl_fc_tab_cupt_		G34	plastic cutlery, plates and trays	Plastic cutlery, plates and trays.
pl_fc_tab_cupt_cutl_	J228		plastic cutlery	Single-use knives, forks, and spoons.
pl_fc_tab_cupt_plat_	J229		plastic plates and trays	Single-use plates and trays made of artificial polymer material.
pl_fc_tab_stst_		G35	plastic straws and stirrers	Straws and stirrers for drinks.
pl_fc_tab_stst_stir_	J230		plastic stirrers	Stirrers are used when serving hot drinks such as tea and coffee or other drinks such as cocktails.
pl_fc_tab_stst_strw_	J231		plastic straws	A drinking straw or drinking tube is a small pipe that allows its user to more conveniently consume a drink.
pl_fc_wrp_			plastic food packets and wrappers	Plastic food packets and wrappers.
pl_fc_wrp_cwls_			plastic crisps packets/sweets wrappers/lolly & lollypop sticks	Plastic crisps packets/sweets wrappers/lolly & lollypop sticks.
pl_fc_wrp_cwls_crsp_	J30	G30	plastic crisps packets/sweets wrappers	Plastic food packets and wrappers created and designed in various colours, materials, shapes, sizes and styles for crisp food products (i.e., potato chips, etc.) or sweets (i.e. chocolates, candy, ice-creams, etc.).
pl_fc_wrp_cwls_loly_	J31	G31	plastic lolly & ice-cream sticks	A plastic stick attached to the bottom of a popsicle/lolly/ice-cream or lollypop used as a handle to facilitate the eating process.
pl_fi_			plastic fisheries related items	Plastic fisheries related items.
pl_fi_bag_hdsa_salt_	J85	G85	plastic commercial salt packaging	Heavy-duty sacks and other containers used for packaging and shipping salt.
pl_fi_box_			plastic fish boxes	Fish boxes for packaging fish or other seafood.
pl_fi_box_fbox_	J58	G58	fish boxes - foamed polystyrene	Boxes made of foamed polystyrene, which are used for packaging fish or other seafood.

Type-Code	J-Code	G-Code	Name	Definition
pl_fi_box_plbx_	J57	G57	fish boxes - hard plastic	Boxes made of plastic materials (other than expanded polystyrene), which are used for packaging fish or other seafood.
pl_fi_bte_	J92	G92	plastic bait containers/packaging	Plastic packaging (pouches, bags) and plastic containers suitable for storing, transporting, selling fishing baits.
pl_fi_fil_	J60	G60	plastic fishing light sticks / fishing glow sticks incl. packaging	An item that is used by anglers in order to make baits more attractive to fish. Fishing light sticks or glow sticks are typically tubes filled with fluorescent fluid. They can be found in a variety of sizes.
pl_fi_flb_	J62	G62	plastic floats for fishing nets	An item attached to the top of some types of fishing nets, like seine and trammel that keeps them hanging vertically in the water. Floats come in different sizes and shapes.
pl_fi_lin_	J59	G59	plastic fishing line	A long nylon thread, usually attached to a baited hook, with a sinker or float, and used for catching fish. The fishing line may be found tangled or not and with or without hooks, sinkers and floats.
pl_fi_net_		G52	plastic nets and pieces of net including dolly ropes	Plastic nets and pieces of net including dolly ropes.
pl_fi_net_larg_	J54	G54	plastic nets and pieces of net > 50cm	Pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish; bigger than 50 cm in the longest dimension.
pl_fi_net_smal_	J53	G53	plastic nets and pieces of net 2.5 cm ≥ ≤ 50 cm	Pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish; smaller than 50 cm in the longest dimension.
pl_fi_net_strg_drop_	J232		plastic string and filaments exclusively from dolly ropes	Strings and filaments from blue, black or orange string that are used to protect bottom trawling nets against wear and tear. A dolly rope consists of around 30 strings; each string has around 25 threads.
pl_fi_net_strg_fish_	J233		other plastic string and filaments exclusively from fishery	Other string and filaments exclusively from fishery.
pl_fi_net_tang_		G56	plastic tangled nets/cord	Tangled nets/cord made of plastic.
pl_fi_net_tang_mixd_	J234		plastic tangled nets and rope without dolly rope or mixed with dolly rope	Tangled pieces of plastic open-meshed material made of twine, cord, or something similar, used typically for catching fish. They may be found tangled with rope or dolly rope.
pl_fi_net_tang_tadr_	J235		plastic tangled dolly rope	Tangles of blue, black or orange rope that are used to protect bottom trawling nets against wear and tear. A dolly rope consists of around 30 strings; each string has around 25 threads. The dolly rope string as well as the separated threads can occur in tangles in the marine environment. Tangles of dolly rope should consist entirely of dolly rope.
pl_fi_ofi_	J61	G61	other plastic fisheries related items not covered by other categories	Other fisheries related litter items that are not explicitly addressed by the fisheries related items included on this list, e.g. soft and hard plastic baits such as wobblers, spinners, etc.

Type-Code	J-Code	G-Code	Name	Definition
pl_fi_trp_			plastic crab/lobster/octopus traps & pots and their tops	Stationary traps or pots used to catch crustaceans such as lobsters, crabs and octopus. Though the size and shape of the traps may vary, most feature a net covering and a cone-shaped entrance tunnel through which a crab or lobster is enticed with bait. Pots typically having a volume of 4 litres. Octopus seeking refuge in the pots can be trapped.
pl_fi_trp_crab_	J42	G42	plastic crab/lobster traps (pots) and tops	Stationary plastic traps or pots used to catch crustaceans such as lobsters and crabs. Though the size and shape of the traps may vary, most feature a net covering and a cone-shaped entrance tunnel through which a crab or lobster is enticed with bait but cannot escape from.
pl_fi_trp_octo_	J44	G44	plastic octopus pots	Pots made of plastic or PVC tubing, weighted with concrete, and typically having a volume of 4 litres. Octopus seeking refuge in the pots can be trapped.
pl_hu_			plastic hunting related items	Plastic hunting related items.
pl_hu_car_	J70	G70	plastic shotgun cartridges	A shotgun cartridge is a self-contained cartridge often loaded with multiple metallic "shot", which are small, generally spherical projectiles. The shells consist of a plastic tube mounted on a brass base holding a primer. Also, plastic wads from shotgun cartridges can be found on their own.
pl_hy_			plastic personal hygiene and care related items	Plastic personal hygiene and care related items.
pl_hy_b&c_			plastic personal hygiene and care related bottles & containers	Plastic body care and cosmetics bottles & containers.
pl_hy_b&c_bech_	J11	G11	plastic beach use related body care and cosmetic bottles and containers	Bottles and containers of body care and cosmetics products used at the beach such as sunscreen, suntan or after sun lotion, etc.
pl_hy_b&c_obch_	J12	G12	plastic non-beach use related body care and cosmetic bottles and containers	Bottles and containers of body care and cosmetics products such as shampoo, shower gel, toothpaste, perfume and others that are not explicitly used at the beach.
pl_hy_cbs_	J95	G95	plastic cotton bud sticks	A short plastic stick with a small amount of cotton on each end that is used for cleaning, especially the ears. The cotton is usually no-longer attached. The ends are rough when touched, where the cotton was attached. This feature can be used to separate from lolly sticks.
pl_hy_com_	J29	G29	plastic combs/hair brushes/sunglasses	Plastic items used for untangling or arranging the hair, as well as plastic glasses tinted to protect the eyes from sunlight or glare.
pl_hy_dap_	J98	G98	plastic diapers/nappies	Basic garments for infants consisting of absorbent synthetic polymer material drawn up between the legs and fastened about the waist, used to retain urine and faeces.
pl_hy_ohy_	J236		other plastic personal hygiene and care items	Other identifiable personal hygiene and care items that do not fit in any other category of this list. Can be made of other materials than artificial polymers.

Type-Code	J-Code	G-Code	Name	Definition
pl_hy_stt_			plastic sanitary towels/panty liners/backing strips, tampons and tampon applicators	Absorbent pads worn by women to absorb menstrual blood. Sanitary towels/panty liners/backing strips, tampons and tampon applicators.
pl_hy_stt_sant_	J96	G96	plastic sanitary towels/panty liners/backing strips	Sanitary towels/panty liners/backing strips.
pl_hy_stt_tamp_	J144	G144	plastic tampons and tampon applicators	A feminine hygiene product designed to absorb the menstrual flow or a plug of material used to stop a wound or block an opening in the body and absorb blood or secretions. The tampon applicator should be recorded within this category.
pl_hy_tfr_	J97	G97	plastic toilet fresheners	Toilet bowl fresheners, which are attached inside the toilet bowl to keep it smelling fresh.
pl_hy_wws_	J237		plastic wet wipes	A small disposable synthetic cloth treated with a cleansing agent, used especially for personal hygiene.
pl_md_			plastic medical related items	Plastic medical related items.
pl_md_msk_	J253		plastic single-use face-mask	Single-use facemask used to protect against for example dust, chemicals and pathogens (e.g. COVID-19 pandemic).
pl_md_omd_	J211	G211	other plastic medical items (swabs, bandaging, adhesive plasters etc.)	Items deemed necessary for the treatment of an illness or injury. These may include swabs, bandaging, adhesive plasters, etc. Can be made of other materials than artificial polymers.
pl_md pha_	J100	G100	plastic medical/ pharmaceuticals containers/tubes/ packaging	A wide variety of artificial polymer packages used for the packaging of a wide variety of pharmaceutical solids, liquids, and gasses. Some of the common primary plastic packages are: blister packs, small bottles and containers, tubes, ampoules, etc.
pl_md_syg_	J99	G99	plastic syringes/needles	A plastic tube with a nozzle and piston or bulb for sucking in and ejecting liquid in a thin stream, used for cleaning wounds or body cavities, or fitted with a hollow needle for injecting or withdrawing fluids. Included all parts of syringes (e.g. syringe plunger and the metal needle with plastic adapter) found separately.
pl_nn_			plastic undefined use	Plastic undefined use.
pl_nn_b&c_		G6	plastic bottles & containers other than food or personal hygiene and care related	Plastic bottles & containers other than food or personal hygiene and care related.
pl_nn_b&c_clng_	J9	G9	plastic bottles and containers of cleaning products	Bottles and containers of cleaning products such as detergents, toilet cleaners, glass cleaners, etc.
pl_nn_b&c_eoil_			plastic engine oil bottles & containers	Plastic engine oil bottles & containers
pl_nn_b&c_eoil_larg_	J15	G15	plastic engine oil bottles & containers >50cm	Plastic bottles and containers bigger than 50 cm in any dimension, used for packaging motor oil, engine oil, or engine lubricant.
pl_nn_b&c_eoil_smal_	J14	G14	plastic engine oil bottles & containers 2.5 cm ≥ ≤ 50 cm	Plastic bottles and containers smaller than 50 cm in any dimension, used for packaging motor oil, engine oil, or engine lubricant.

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_b&c_injn_	J17	G17	plastic injection gun containers/cartridges	A cartridge made of plastic for devices that are used to inject grease, silicone, or other fluids. Includes their nozzles.
pl_nn_b&c_jery_	J16	G16	plastic jerry cans	Large plastic flat-sided containers with a handle used for storing or transporting liquids, typically petrol or water.
pl_nn_b&c_lids_		G20	plastic caps and lids	Plastic caps and lids.
pl_nn_b&c_lids_dtgt_	J22	G22	plastic caps/lids chemicals, detergents (non-food)	Plastic caps and lids from bottles and containers of cleaning products (i.e. detergents, toilet cleaners, glass cleaners, etc.) and chemicals.
pl_nn_b&c_lids_olid_	J23	G23	plastic caps/lids unidentified	Plastic caps and lids from unidentified bottles and containers.
pl_nn_b&c_lids_ring_	J24	G24	plastic rings from bottle caps/lids	Plastic structures around the circumference (usually) of the closure that is often found attached below a closure in bottles, jars, and tubs. The bottom part of a cap that breaks off when the cap is screwed off.
pl_nn_b&c_ob&c_	J13	G13	other plastic bottles & containers (drums)	Other plastic bottles and containers such as drums (cylindrical containers) generally used for the transportation and storage of liquids and powders.
pl_nn_bag_		G2	plastic bags	Plastic bags
pl_nn_bag_cabg_	J3	G3	plastic shopping/carrier/grocery bags	Shopping bags are medium-sized bags, typically around 10–20 litres in volume (though much larger versions exist, especially for non-grocery shopping), that are used by shoppers to carry home their purchases. Shopping bags can be made with a variety of plastics.
pl_nn_bag_dogb_	J101	G101	plastic dog/pet faeces bag	A plastic bag used for picking up and removing the faeces of a dog or other pet.
pl_nn_bag_ends_	J5	G5	the part that remains from tear-off plastic bags	Plastic packing bags are commonly found on the market in packs of 10, 20, 50, etc. This litter item refers to the part that remains after tearing-off the bags.
pl_nn_bag_hdsa_			plastic heavy-duty sacks	Heavy duty sacks are plastic sacks typically designed to contain more than 25 kg of content such as animal feed, fertilizers, garden rubbish, etc.
pl_nn_bag_hdsa_ohds_	J36	G36	other plastic heavy-duty sacks	Non-salt heavy duty plastic sacks for content such as animal feed, fertilizers, garden rubbish, etc.
pl_nn_bag_mesh_		G37	plastic mesh bags	Plastic mesh bags.
pl_nn_bag_mesh_vege_	J238		plastic mesh bags for vegetable, fruit and other products	A special mesh bag made out of polypropylene, polyethylene or high-density polyethylene used for packaging and transporting agricultural products such as vegetables, fruit, bird feed, etc.
pl_nn_bag_smbg_	J4	G4	small plastic bags	Small plastic bags refer to small-sized bags such as freezer bags, zip-lock re-sealable food bags, poly bags, etc.
pl_nn_bio_	J91	G91	plastic biomass holder from sewage treatment plants and aquaculture	Plastic Filter Media or Biofiltration Media are small (1-4 cm diameter ca. 1 cm high) usually round plastic items that look a bit like a cake. https://www.bing.com/images/search?q=Plastic+Filter+Media+or+Biofiltration+Media&FORM=HDRSC2

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_box_	J18	G18	plastic crates, boxes, baskets	Plastic containers typically used to transport or store different types of items and products, other than fisheries and aquaculture related.
pl_nn_buc_	J65	G65	plastic buckets	A roughly cylindrical open container with a handle made of plastic and used to hold and carry liquids
pl_nn_cbt_	J93	G93	plastic cable ties	A cable tie (also known as a wire tie, hose tie, steggel tie, zap strap or zip tie, and by the brand names Ty-Rap and Panduit strap) is a type of fastener, for holding items together, primarily electrical cables or wires.
pl_nn_cds_	J84	G84	plastic CDs & DVDs	Small plastic discs (and their keep cases) on which sound and data can be stored (CDs & DVDs).
pl_nn_cpa_		G38	plastic cover packaging	Plastic cover packaging.
pl_nn_cpa_shet_	J67	G67	plastic sheets, industrial packaging, sheeting	Large plastic packaging or sheeting used for the protection or covering/wrapping of large cargo objects. Plastic sheeting is used for a variety of industrial and commercial applications. It comes in many sizes, strengths, styles, and colours depending on the application.
pl_nn_fen_	J64	G64	plastic fenders	Plastic cushions (such as foam rubber) placed between a boat and a dock or between two boats to lessen shock and prevent chafing.
pl_nn_fib_	J68	G68	fibre glass items	Items made of fibreglass, a common type of fibre-reinforced plastic using glass fibre. Examples of fibreglass items include water pipes, pods, domes, traffic lights, pieces of boats etc.
pl_nn_flb_	J63	G63	plastic floats/buoys other source than fishing or not known	Plastic floats/buoys other source than fishing or not known. Floating devices that serve as navigation marks, marking reefs or other hazards, mooring locations. They can be anchored (stationary) or allowed to drift with ocean currents.
pl_nn_fom_		G73	foamed plastic items and fragments	Foamed plastic items and fragments.
pl_nn_fom_nfpy_	J239		other foamed plastic items and fragments not made of foamed polystyrene	Items and fragments not made of foamed polystyrene (other than packaging or insulation related) made out of foamed sponge-like plastic, such as mattresses, bathing sponges, etc.
pl_nn_fom_pain_		G74	packaging and/or insulation of foamed plastic, including foamed polystyrene	Lightweight cellular foam (mainly foamed PU and PE materials) used especially for insulation (i.e., in walls, roofs, and foundations as thermal insulation and water barrier) or as a packing material.
pl_nn_fom_pain_pack_	J257		foamed plastic packaging	Lightweight cellular foam (mainly foamed PU and PE materials) used as a packing material.
pl_nn_frg_			fragments of foamed and non-foamed plastic material	Hard and foamed fragments of plastic material.
pl_nn_frg_fopy_			fragments of foamed polystyrene	Fragments of foamed polystyrene.
pl_nn_frg_fopy_larg_	J83	G83	fragments of foamed polystyrene > 50cm	Fragments of foamed polystyrene that are bigger than 50 cm in the longest dimension and originate from unidentifiable polystyrene items.

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_frg_fopy_smal_	J82	G82	fragments of foamed polystyrene 2.5 cm \geq \leq 50 cm	Fragments of foamed polystyrene that are bigger than 2.5 cm and smaller than 50 cm in the longest dimension and originate from unidentifiable polystyrene items.
pl_nn_frg_larg_		G77	fragments of foamed and non-foamed plastic material > 50 cm	Plastic/foamed polystyrene pieces > 50 cm.
pl_nn_frg_nofp_			fragments of non-foamed plastic	Fragments of plastic that originate from unidentifiable plastic non-foamed polystyrene items.
pl_nn_frg_nofp_larg_	J80	G80	fragments of non-foamed plastic > 50cm	Fragments of plastic that are larger than 50 cm in the longest dimension and originate from unidentifiable plastic non-foamed polystyrene items.
pl_nn_frg_nofp_smal_	J79	G79	fragments of non-foamed plastic 2.5cm \geq \leq 50cm	Fragments of plastic that are bigger than 2.5 cm and smaller than 50 cm in the longest dimension and originate from unidentifiable plastic non-foamed polystyrene items.
pl_nn_frg_smal_		G76	fragments of foamed and non-foamed plastic material 2.5cm \geq \leq 50cm	Plastic/foamed polystyrene pieces 2.5 cm \geq \leq 50 cm.
pl_nn_idp_		G124	other hard plastic or foamed polystyrene items (identifiable)	Other plastic/foamed polystyrene items (identifiable).
pl_nn_idp_idfd_	J240		other identifiable foamed plastic items	Items that are made of foamed polystyrene, which are identifiable but do not fit in any other litter type category in this list.
pl_nn_idp_idnf_	J241		other identifiable non-foamed plastic items	Items that are made of non-foamed artificial polymers, which are identifiable but do not fit in any other litter type category in this list.
pl_nn_pai_	J166	G166	plastic paint brushes	A brush used for painting, typically consisting of bristles fastened into a wooden or plastic handle. Can be made of a mixture of materials including metal.
pl_nn_pen_	J28	G28	plastic pens and pen lids	Any writing or drawing utensils, their parts and lids, made predominately from artificial polymer materials.
pl_nn_rps_			plastic rope, string, cord	Rope, string, cord made of plastic.
pl_nn_rps_rope_	J49	G49	plastic rope (diameter more than 1cm)	A stout cord of strands of plastic fibres twisted or braided together, with a diameter larger than 1 cm.
pl_nn_rps_strg_		G50	plastic string and cord (diameter less than 1cm)	String and cord (diameter less than 1cm).
pl_nn_rps_strg_nodr_	J242		plastic string and cord (diameter less than 1cm) not from dolly ropes or unidentified	A material consisting of threads made of plastic twisted together to form a thin length, with a diameter smaller than 1 cm; excluding string and cord from dolly ropes.
pl_nn_stb_	J66	G66	plastic strapping bands	Plastic bands and straps used for fastening any type of package. Polypropylene and polyester strapping is the most commonly used plastic strapping on the market. Usually made of quite hard plastic.
pl_nn_tag_	J43	G43	plastic tags (fishing, shipping, farming and industry)	Plastic tags used to mark fish and shellfish such as lobsters and plastic cargo seals (pull-tight), both usually with a serial number. Also, animal tags from farming.

Type-Code	J-Code	G-Code	Name	Definition
pl_nn_tap_	J87	G87	plastic masking/duct/packing tape	Different sorts of plastic adhesive tape: used in painting, to cover areas on which paint is not wanted (masking tape); strong cloth-backed waterproof adhesive tape (duct tape); box-sealing tape, parcel tape or packing tape used for closing or sealing corrugated fibreboard boxes.
pl_nn_tel_	J88	G88	telephone	Mobile phone devices and any other type of telephones.
pl_nn_tfk_	J72	G72	plastic traffic cones	Plastic cone-shaped objects that are used to separate off or close sections of a road.
pl_re_			plastic recreation related	Plastic recreation related.
pl_re_div_	J86	G86	plastic fin trees (from fins for scuba diving)	The plastic supports placed inside diving flippers or fins to keep them in shape.
pl_re_fwo_	J243		plastic remains of fireworks	The plastic remains of fireworks such as caps of rockets, covers for fuses, exploding parts of battery fireworks.
pl_re_toy_	J32	G32	plastic toys and party poppers	Any plastic object that children play with, as well as objects commonly used at parties. Party poppers are small devices used as an amusement at parties, which explode when a string is pulled, ejecting thin paper streamers.
pl_sm_			plastic smoking related items	Plastic smoking related items.
pl_sm_but_	J27	G27	tobacco products with filters (cigarette butts with filters)	A cigarette filter, also known as a filter tip, is a component of a cigarette, placed at the one tip of the cigarette in order to absorb vapours and accumulate particulate smoke components. The filter is commonly made from synthetic plastic cellulose.
pl_sm_lht_	J26	G26	plastic cigarette lighters	Small objects that produce a flame, commonly used for lighting cigarettes or cigars.
pl_sm_tob_	J25	G25	plastic tobacco pouches / plastic cigarette packet packaging	Plastic containers (pouches, boxes) used for cigarettes and tobacco.
pl_vk_			plastic vehicle related	Plastic vehicle related.
pl_vk_prt_	J19	G19	plastic vehicle parts	Any part of a car or other transport vehicle made of artificial polymer materials and fibre glass. This can also include pieces of boats.
pp_fc_			paper food consumption related items	Paper food consumption related items.
pp_fc_b&c_			paper containers for food and drink	Paper containers for food and drink.
pp_fc_b&c_tpak_			paper cartons/Tetrapak	Paper cartons/Tetrapak.
pp_fc_b&c_tpak_milk_	J150	G150	paper cartons/Tetrapak milk	Containers made of carton with a plastic-lining used for milk.
pp_fc_b&c_tpak_otpk_	J151	G151	paper cartons/Tetrapak (non-milk)	Containers made of carton with a plastic-lining used for food products, other than milk.

Type-Code	J-Code	G-Code	Name	Definition
pp_fc_tab_		G153	paper cups, food trays, food wrappers, drink containers	Paper cups, food trays, food wrappers, drink containers.
pp_fc_tab_cups_	J244		paper cups	Cups for coffee and other drinks; made of cardboard. They have a wide range of uses in restaurants, bakeries, or catering settings.
pp_fc_tab_tray_	J245		paper food trays, food wrappers, drink containers	Single-use food trays, food wrappers and drink containers, made of paper.
pp_hy_			paper personal hygiene and care	Paper personal hygiene and care.
pp_hy_cbs_	J246		paper cotton bud sticks	A short paper stick with a small amount of cotton on each end that is used for cleaning, especially the ears.
pp_nn_			paper undefined use	Paper undefined use.
pp_nn_b&c_	J247		other paper containers	Other paper containers.
pp_nn_bag_	J147	G147	paper bags	A small bag made of paper, commonly used as shopping bags, packaging, etc.
pp_nn_box_	J148	G148	cardboard boxes	Boxes made of cardboard (a thick, stiff paper or material containing multiple layers of corrugated paper).
pp_nn_frg_	J156	G156	paper fragments	Fragments of paper items that cannot be identified.
pp_nn_new_	J154	G154	paper newspapers & magazines	Printed publications consisting of paper sheets and containing news, articles, advertisements.
pp_nn_opp_	J158	G158	other paper items	Other identifiable paper and cardboard items, which do not fit in any other category of this list.
pp_re_fwo_	J155	G155	paper tubes and other pieces of fireworks	Small paper/cardboard containers/tubes filled with explosive chemicals that produce bright coloured light patterns or loud noises when they explode (fireworks).
pp_sm_cig_	J152	G152	paper cigarette packets	A rectangular container made of paperboard, used as packaging for cigarettes. It may also include a plastic covering.
ru_cl_			rubber clothing, footwear, headwear, gloves	Rubber clothing, footwear, headwear, gloves.
ru_cl_ftw_			rubber footwear	Rubber footwear.
ru_cl_ftw_rubo_	J127	G127	rubber boots	A tall boot that is made of rubber and that keeps the feet and lower legs dry.
ru_hy_			rubber personal hygiene and care	Rubber personal hygiene and care.
ru_hy_con_	J133	G133	rubber condoms (incl. packaging)	A thin rubber sheath, used during sexual intercourse as a contraceptive or as a protection against infection. Within this category also the packaging should be recorded.
ru_nn_			rubber undefined use	Rubber undefined use.

Type-Code	J-Code	G-Code	Name	Definition
ru_nn_bnd_	J131	G131	rubber band (small, for kitchen/household/post use)	A thin, flexible loop that is made of rubber and used to hold things together.
ru_nn_its_		G129	rubber inner-tubes & rubber sheet	Rubber inner-tubes & rubber sheet.
ru_nn_its_rush_	J248		rubber sheet	Rubber sheeting made of rubber (or rubber-like artificial polymer). Rubber sheets are used for varied purposes, e.g. flooring, under shower pans, drainage systems, as lining for water containers and in construction.
ru_nn_oru_	J134	G134	other rubber pieces	Other identifiable rubber pieces, which do not fit in any other category of this list.
ru_nn_tyr_belt_	J249		rubber belts	Rubber belts are elongated rectangular rubber items.
ru_re_bln_	J125	G125	rubber balloons	A small, coloured, rubber sack-like object which is inflated with air or gas and then sealed at the neck, used as a child's toy or for decoration. Within this category balloon ribbons, strings, plastic valves and balloon sticks that are or were attached to balloons are included.
ru_re_bls_	J126	G126	rubber balls	A spherical toy ball, usually fairly small, made of elastic material which allows it to bounce against hard surfaces.
ru_vk_			rubber vehicle related items	Rubber vehicle related items.
ru_vk_its_intu_	J250		rubber inner-tubes	An inflatable usually ring-shaped rubber tube designed for use inside a pneumatic tire.
ru_vk_tyr_		G128	rubber tyres & belts	A rubber covering, typically inflated or surrounding an inflated inner tube, placed round a wheel to form a soft contact with the road (tyre); a continuous rubber band of material used in machinery for transferring motion from one wheel to another (belt).
ru_vk_tyr_tyre_	J251		rubber tyres	Rubber tyres from all types of vehicles.
wo_fc_			wooden food consumption related items	Wooden food consumption related items.
wo_fc_b&c_			wooden bottles-related items	Wooden bottles-related items
wo_fc_b&c_cork_	J159	G159	wooden corks	A bottle stopper made of cork or a similar material. Note that plastic corks should be recorded under plastic caps and lids
wo_fc_ice_	J165	G165	wooden ice-cream sticks, chip forks, chopsticks, toothpicks	Various wooden sticks, including sticks from ice-creams, small wooden forks from fast food suppliers (chip forks), tapered sticks of wood held together in one hand and used as eating utensils in Asian cuisine (chopsticks), short pointed pieces of wood used for removing bits of food lodged between the teeth (toothpicks).
wo-fi_			wooden fisheries related items	Wooden fisheries related items.
wo-fi_box_	J164	G164	wooden fish boxes	Boxes made of wood, which are used for storing or transferring fish or other seafood.

Type-Code	J-Code	G-Code	Name	Definition
wo_fi_trp_	J163	G163	wooden crab/lobster pots	Stationary wooden traps used to catch crustaceans such as lobsters and crabs. Usually covered in a net.
wo_nn_			wood undefined use	Wood undefined use.
wo_nn_box_	J162	G162	wooden crates, boxes, baskets for packaging	Wooden containers typically used to transport or store different types of items and products. Not fish boxes.
Wo_nn_owo_		G173	other wooden items	Other wood.
wo_nn_owo_larg_	J172	G172	other processed wooden items > 50cm	Other identifiable processed, worked or treated wooden items larger than 50 cm in the longest dimension, which do not fit in any other category of this list, e.g., planks, boards, beams.
wo_nn_owo_smal_	J171	G171	other processed wooden items 2.5 cm \geq \leq 50 cm	Other identifiable processed, worked or treated wooden items smaller than 50 cm in the longest dimension, which do not fit in any other category of this list, e.g. planks, boards, beams.
wo_nn_pal_	J160	G160	wooden pallets	A flat wooden structure on which heavy goods are put so that they can be moved using a fork-lift truck.
wo_re_			wooden recreation related items	Wooden recreation related items.
wo_re_fwo_	J167	G167	wooden fireworks & matches	A small thin piece of wood or cardboard tipped with flammable chemicals that catch fire with friction (match); any wooden remains of fireworks, e.g. sticks from rockets.

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