

Appendix A:

Consolidated European Waste Catalogue

This aim of this appendix is to provide guidance on the use of the European Waste Catalogue (EWC 2002). It reproduces the EWC 2002 in full, including amendments, and includes instructions for its use.

The structure of the EWC 2002

The EWC contains 20 chapters that are based upon the source that generated the waste or upon the type of waste. The chapter headings are shown in Table A1.

Each chapter is identified by a two-digit number :

e.g., 07 Wastes from Organic Chemical Processes

Each of these chapters contains sub-chapters that are identified by four digits. ;

e.g., 07 01 Wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals.

The unique six-digit code for each waste is contained within the sub-chapters.

e.g., 07 01 01* aqueous washing liquids and mother liquors

The red and blue colour coding of entries is provided in this document to support the instructions on the use of the EWC 2002 included below.

Under the Duty of Care, waste producers have a duty to classify and describe their waste correctly; this includes selecting the most appropriate six-digit code from the EWC 2002. Note : The written description must not simply reproduce the description from the EWC 2002 that accompanies each classification code.

Using the EWC 2002

The EWC 2002 details a series of steps for identifying wastes in the catalogue and determining whether a waste is covered by a hazardous waste entry. Set out below are the steps to be followed when using the catalogue.

Step 1 Identification by Waste Source

Identify the source process generating the waste in chapters 01 to 12 and 17 to 20 and select the appropriate six-digit code. However it should be noted that:

- six-digit codes ending 99 (which represents wastes not otherwise specified under a particular two-digit and four-digit code) should not be used at this stage and are only to be used if no other code applies to a waste (Step 4 below)
- certain producers may need to look in more than one of these Chapters if their activity has a number of different processes.
- source related chapters may contain codes that apply to wastes generated by a manufacturing process (for example chapter 07). However, the manufactured products themselves may be found elsewhere in the EWC 2002 .
- Separately collected packaging waste, including mixtures of different packaging materials, should be classified under 15 01 and not 20 01.



Step 2 Identification by Waste Type

If no appropriate waste code can be found in Chapters 01 to 12 and 17 to 20, then chapters 13, 14, and 15 must be examined to identify the type of waste.



Step 3 Waste not otherwise specified in the list.

If a suitable waste code can not be found in Chapters 13 to 15, a six-digit code from Chapter 16 should be used to identify the waste.



Step 4 Waste not otherwise specified in the chapter

Only if no suitable six-digit code can be found in Chapter 16 should the most appropriate six digit code ending 99 in Chapters 01 to 12 and 17 to 20 be used .



Step 5 Hazardous Waste Classification

There are three types on entry in the EWC 2002

- **Absolute** hazardous that are colour-coded **red** and marked with an **A** in this document
- **Mirror** hazardous that are colour-coded **blue** and marked with an **M** in this document
- Non-hazardous that are colour-coded black in this document

"Absolute entries " :

These entries are marked in the EWC 2002 with an asterisk (*), but without a specific or general reference to dangerous substances. They are automatically considered hazardous.

There is no requirement to assess the composition of these wastes to determine whether they are hazardous or not; the European Commission has determined that these wastes possess one of more hazardous properties H1 to H14. **Absolute entries** are colour-coded in **red** and marked with an **A** in this document ;

e.g., **13 07 01* fuel oil and diesel**

"Mirror entries " :

Some wastes have the potential to be either hazardous or not, depending on whether they contain "dangerous substances".

These wastes are covered by two or more linked entries in the EWC 2002, collectively called **mirror entries**, that typically comprise:

- a hazardous waste entry (or entries) marked with an asterisk (*), and
- an alternative non-hazardous waste entry (or entries) not marked with an asterisk.

Mirror entry wastes, highlighted in **blue** and marked with an **M**, are easily identified because they make a reference to dangerous substances. They can do this in one of two ways:

Appendix B:

Wastes and Potential Hazards for Absolute and Mirror Entries in the European Waste Catalogue

The aim of this appendix is to:

- provide advice on the dangerous substances that may be associated with a particular hazardous waste entry;
- highlight indicative hazardous properties that may need to be considered for different hazardous waste entries;
- assist in assigning hazard properties to wastes for Duty of Care purposes; and
- provide explanation on classification using examples and further explanation to highlight key issues.

The appendix only lists the hazardous entries in the EWC 2002.

The appendix guides the user towards further actions appropriate to the likely hazards, and links to Step 4 and 5 in the Hazardous Waste Assessment Methodology set out in Chapter 3. Only general comments are possible for some six-figure waste categories. These categories cover wastes that could have a broad range of chemical constituents. Waste producers should consider all hazardous properties.

Where particular difficulties might arise in assigning some wastes to their correct category examples are given. These have been taken from a wide variety of industries that produce mixtures of different and sometimes complex wastes.

Asbestos

All forms of asbestos, regardless of the chemical form (e.g. chrysotile, amosite) or physical form (e.g. cement, fibres, dust) are listed as Carc Cat 1: R45 and T: R48/23 in the ASL. All forms of asbestos are regarded as hazardous waste, where the asbestos content is greater than the threshold concentration for Carc Cat 1 of $\geq 0.1\%$ w/w.

It should be noted that asbestos is also Harmful (H5) at 3%, and Toxic (H6) at 25%.

Waste asbestos cement

The threshold concentration for Carc Cat 1 is 0.1%. Waste asbestos cement containing 10-15% asbestos (predominantly chrysotile) is therefore hazardous by carcinogenic H7. Since the HWD relate to hazard and not to risk, the ability of the waste to release free fibres is not relevant for consideration.

Note that asbestos is also classified R48/23: At a concentration of 3% or greater the waste is harmful (H5), however at a concentration of 25% or greater this is replaced by hazard toxic (H6)

Wastes containing PCBs or PCTs

Construction and demolition wastes containing PCB are likely to decline as PCBs are phased out and destroyed. They were mainly used in transformers and capacitors but have been used for other applications such as sealants, resin-based floorings, sealed glazing units.

PCBs are listed in the ASL and are given the hazard classification N, with risk phrases R50, 53 (Very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment). This would give a threshold limit of 0.25%.

However, to maintain consistency with international UK legislation and guidance, the Agencies consider that the level of 50 mg/kg should be the defining threshold concentration for wastes containing PCBs and PCTs. Wastes containing PCBs/PCTs at more than 0.005% will be hazardous waste by virtue of their PCB and PCT content.

18	Wastes from Human or Animal Health Care and/or Related Research (except kitchen and restaurant wastes not arising from immediate health care)	
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans	
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection	A
	Wastes under this heading should be considered under H9: see Appendix C9 for detailed guidance.	
18 01 06*	chemicals consisting of or containing dangerous substances	M
	If the chemical constituents of the waste are unknown, it should be treated as hazardous unless tested.	

18 01 08*	cytotoxic and cytostatic medicines	A
	Any medicinal product that possesses one or more of the hazardous properties Toxic (H6), Carcinogenic (H7), Toxic for Reproduction (H10), or Mutagenic (H11), is classified as 'Cytotoxic and Cytostatic'. This may include drugs from a number of medicinal classes for example antineoplastic agents, antivirals, immunosuppressants, hormonal drugs and others.	
18 01 10*	amalgam waste from dental care	A
	Amalgam waste is hazardous from mercury, and to a lesser extent from the other constituents of the amalgam (e.g. silver and tin). Hazard H13 applies as chemical or thermal processes involved in recycling, incineration or other treatment may liberate mercury from the amalgam. Hazards H6 and H14 apply to the mercury released.	
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals	
18 02 02*	wastes whose collection and disposal is subject to special requirements in order to prevent infection	A
	Wastes under this heading should be considered under H9: see Appendix C9 for detailed guidance.	
18 02 05*	chemicals consisting of or containing dangerous substances	M
	If the chemical constituents of the waste are unknown, it should be treated as hazardous unless tested.	
18 02 07*	cytotoxic and cytostatic medicines	A
	Any medicinal product that possesses one or more of the hazardous properties Toxic (H6), Carcinogenic (H7), Toxic for Reproduction (H10), or Mutagenic (H11), is classified as 'Cytotoxic and Cytostatic'. This may include drugs from a number of medicinal classes for example antineoplastic agents, antivirals, immunosuppressants, hormonal drugs and others.	
19	Wastes from Waste Management Facilities, Off-Site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial use	
19 01	wastes from incineration or pyrolysis of waste	
19 01 05*	filter cake from gas treatment	A
19 01 06*	aqueous liquid wastes from gas treatment and other aqueous liquid wastes	A
19 01 07*	solid wastes from gas treatment	A
19 01 10*	spent activated carbon from flue-gas treatment	A
	Possible hazards from metals such as nickel; copper; zinc; arsenic; cadmium; antimony; tellurium; mercury; thorium; lead or their compounds should be considered under the following hazards: H5 to H7, H10, H11, or H14.	

20	Municipal Wastes (Household Waste and Similar Commercial, Industrial and Institutional Wastes) Including Separately Collected Fractions
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20 01	separately collected fractions (except 15 01)
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20 01 13*	solvents	A
20 01 14*	acids	A
20 01 15*	alkalines	A
20 01 17*	photochemicals	A
20 01 19*	pesticides	A
20 01 21*	fluorescent tubes and other mercury-containing waste	A
20 01 31*	cytotoxic and cytostatic medicines	A
<p>There are possible hazards from flammability (H3) ecotoxicity (H14); corrosive (H8), carcinogenic (H7) and teratogenic (H10) properties, plus trace levels of the potentially hazardous metals nickel; copper; zinc; chromium; cobalt; arsenic; cadmium; antimony; mercury; thorium and lead and their compounds. Potential hazards may include H3A (first indent), H3B, H4 to H8, H12 and H14.</p> <p>Any medicinal product that possesses one or more of the hazardous properties Toxic (H6). Carcinogenic (H7), Toxic for Reproduction (H10), or Mutagenic (H11), is classified as 'Cytotoxic and Cytostatic'. This may include drugs from a number of medicinal classes for example antineoplastic agents, antivirals, immunosuppressants, hormonal drugs and others. (There is a corresponding entry for non-cytotoxic and cytostatic medicines 20 01 32.)</p>		
20 01 23*	discarded equipment containing chlorofluorocarbons	M
20 01 26*	oil and fat other than those mentioned in 20 01 25	A
20 01 27*	paint, inks, adhesives and resins containing dangerous substances	M
20 01 29*	detergents containing dangerous substances	M
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	A
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components ⁷	M
20 01 37*	wood containing dangerous substances	M
<p>Potential hazards include:</p> <ul style="list-style-type: none"> • flammability (H3) and ecotoxicity (H14) in 20 01 23*, 20 01 26*, 20 01 27*; • trace levels of the metals nickel; copper; zinc; chromium; cobalt; arsenic; cadmium; antimony; mercury; thorium and lead or their compounds may occur in 20 01 27*, 20 01 33*, 20 01 35*, 20 01 37* and should be considered under the following hazards: H5 to H7, H10, H11, or H14; • irritant (H4) nature of some waste inks in 20 01 27*; and • carcinogenic (H7) and teratogenic (H10) properties may be found in 20 01 27*, 20 01 33*, 20 01 35*, 20 01 37*. <p>There is a corresponding non-hazardous entry for</p> <ul style="list-style-type: none"> • 20 01 26*, where the grease and oils consist of edible oils and fats only, 20 01 25; and • 20 01 33*, where the waste contains only non-hazardous batteries, 20 01 34. <p>The components in electrical equipment are assessed in isolation to determine if they are hazardous waste. The equipment is hazardous, 20 01 23*, 20 01 35*, where it contains a hazardous component.</p>		

⁷ Hazardous components from electrical and electronic equipment may include accumulators and batteries mentioned in 16 06 and marked as hazardous; mercury switches, glass from cathode ray tubes and other activated glass, etc.