



FEDERAL WASTE MANAGEMENT PLAN 2017 PART 2

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9

GUIDELINES FOR THE SHIPMENT OF WASTE

9. GUIDELINES FOR THE SHIPMENT OF WASTE

THE FEDERAL WASTE MANAGEMENT PLAN is expected to provide guidelines for the shipment of waste to or from Austria for recovery or disposal purposes as well as special arrangements and treatment principles for specific types of waste which also apply to the shipment of waste. Treatment requirements are defined in the relevant regulations and in Chapter 7 of the Federal Waste Management Plan 2017.

This partial volume lays down, inter alia, tolerance values for permissible impurities for waste contained in the Green Waste List that is to be shipped cross-border, and is thus used by the involved Austrian authorities in the classification of this waste. According to the principles of transparency and traceability of administrative decisions, this specifies a generally applicable benchmark which is to be considered by all companies involved in the transboundary shipment of waste.

9.1. GENERAL PRINCIPLES FOR THE SHIPMENT OF WASTE

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention 1989, Federal Law Gazette No 229/1993, as amended), which has been ratified both by Austria and by the European Union as a whole, obligates parties, in Article 4(9), to only allow export of waste in the sense of the Convention if

- suitable environmentally sound disposal facilities do not exist in the exporting state or
- the waste is intended for recovery.

The Basel Convention has been transposed as Regulation (EC) No 1013/2006 on shipment of waste.

THE PRINCIPLE OF PROXIMITY AND THE PRINCIPLE OF SELF-SUFFICIENCY OF DISPOSAL

Shipment of waste into and out of Austria for disposal may be prohibited by virtue of Article 11 of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipment of waste (the EC Waste Shipment Regulation) and Section 69(7a)(1) of the Waste Management Act 2002. Shipment of waste into and/or out of Austria for recovery may be prohibited by virtue of Article 12 of the EC Waste Shipment Regulation and Section 69(7a)(2) of the Waste Management Act 2002. Objections may be lodged against shipments into Austria for recovery based on Section 69(7b) of the Waste Management Act 2002.

The principles of self-sufficiency of disposal and proximity are contained in the EC Waste Shipment Regulation (cf. in particular Article 11(1)(a) and (g)).

In accordance with Section 69(7a) of the Waste Management Act 2002, the shipment of waste to disposal plants must be prohibited if the principles of self-sufficiency of disposal or proximity are not met.

Self-sufficiency in terms of disposal and the principle of proximity are basically principles of equal ranking and can be contradictory in some cases. In these cases, it shall be pondered in the individual case and by considering the criteria stated below which principle is to be applied. Objections according to the principles of the self-sufficiency of disposal and proximity may also be lodged against the shipment of waste to recovery plants for mixed residual waste, which was collected from private households. This shall also apply if, in this process, waste of other producers is co-collected.

Furthermore, the shipment of waste for recovery to incineration plants in Austria must be prohibited (as per Section 69(7b) of the Waste Management Act 2002) if it is proven that such shipments would result in domestic waste being disposed of or that waste would have to be treated in a manner that is not compatible with the waste management rules stipulated in the Federal Waste Management Plan.

Compliance with the principles of self-sufficiency of disposal or proximity is determined within the notification procedure based on the following criteria:

Shipments from Austria

- No suitable disposal facilities in Austria
- Equivalent or better disposal options compared to Austria (equivalent means, in particular, the use of comparable technologies and compliance with comparable emissions limits according to the state of the art, taking into account disposal of any arising waste/residual substances according to the state of the art)
- Availability of domestic treatment capacities
- Distance: shorter transport routes reduce pollution and risks for the environment and health. If the difference in the distance transported is insignificant, the principle of self-sufficiency always takes priority.
- Reasonableness of the transport route: this factors in transport risks, means of transport, any required transshipment or outer packaging, etc.

Shipments to Austria

- Verification of Austrian treatment capacities
- Prohibition on shipment of asbestos waste and mineral fibres with asbestos-like properties¹ for disposal

With regard to the shipment of mixtures of municipal waste that are collected from private households – even if this waste is collected from other producers – to recycling or disposal plants, the EC Waste Shipment Regulation states that these are subject to the same provisions as the shipment of waste for disposal (Article 3(5)) and provides for separate grounds for objection (Article 11(1)(i)).

Particularly for achievement of the objective of self-sufficiency of disposal in mixed municipal waste, a demand exists for suitable treatment facilities because untreated landfilling of this waste does not meet the principles of Waste Management Act 2002, as amended, and the state of the art as defined in the Landfill Ordinance, Federal Law Gazette II No 39/2008, as amended.

Thus, mixtures of municipal waste also apply as mixtures of municipal waste if they undergo waste treatment that does not significantly alter their properties.

INVOKING HIGHER ENVIRONMENTAL STANDARDS FOR SHIPMENTS FOR RECOVERY

It is not permitted to ship waste for the purpose of subsequent recovery if the recovery process does not comply with the provisions of Austrian law (objection as per Article 12(1)(c) of the EC Waste Shipment Regulation) or binding environmental standards for recovery operations or binding recovery or recycling requirements under EU law (objection as per Article 12(1)(j)). At any rate, the need for the seamless functioning of the internal market must be heeded in this process (principle of proportionality).

Some examples of standards to meet would be: Section 15 and Section 16 of the Waste Management Act 2002, the Waste Treatment Obligations Ordinance, the Waste Incineration Ordinance (limits for waste fuels), the Recycled Construction Materials Ordinance, the Recycled Wood Ordinance, the Industrial Emissions Directive, provisions as per the EU Waste Electrical Equipment Directive, EU Batteries Directive or the EU End-of-Life Vehicles Directive, or the corresponding national ordinances.

An objection as per Article 12(1)(c) of the EC Waste Shipment Regulation is not possible if corresponding Community legislation exists and has been transposed or if national regulations exist in the state of destination that are at least as strict as those in Community law.

¹Both waste types must be considered asbestos waste.

IMPORTANT ECJ-JUDGEMENTS ON SHIPMENT

The following ECJ-judgments are particularly relevant to the shipment of waste (for further details, see curia.europa.eu):

---	C-2/90	Commission versus Belgium
---	C-192/96	Beside
---	C-203/96	Chemische Afvalstoffen Dusseldorp
---	C-209/98	Entreprenørforeningens Affalds/Miljøsektion (FFAD) - time-limited delivery obligation
---	C-324/99	Daimler Chrysler AG
---	C-6/00	ASA
---	C-307/00 bis C-311/00	Oliehandel Koewit
---	C-277/02	EU-Wood Trading
---	C-472/02	Siomab SA
---	C-215/04	Marius Pedersen A/S
---	C-176/05	KVZ retec GmbH
---	C-259/05	Omni Metal Service
---	C-411/06	Commission versus Parliament and Council
---	C-209/09	Lahti Energia Oy
---	C-1/11	Interseroh Scrap and Metals Trading GmbH v. Sonderabfall-Management-Gesellschaft Rheinland-Pfalz mbH (SAM)
---	C-241/12	Shell Nederland und Belgian Shell
---	C-292/12	Ragn-Sells
---	C-487/14	Total Waste Recycling

OTHER RELEVANT ECJ-JUDGEMENTS

The following ECJ-judgments are particularly relevant for the differentiation between the disposal/recovery/sham recovery of waste:

---	C-6/00	Abfall Service AG (ASA)
---	C-458/00	EC versus Luxembourg (incineration of household waste)
---	C-228/00	EC versus Germany (cement works)
---	C-444/00	Mayer Parry
---	C-116/01	SITA EcoService Nederland BV
---	C-113/02	Commission versus the Netherlands
---	C-387/07	MI.VER Srl, Antonelli (mixing prohibition)
---	C-317/07	Lahti Energia Oy (pyrolysis, gasification: co-incineration in power plants)

9.1.1. PREVENTION OF SHAM RECOVERY

In accordance with ECJ case law, waste is deemed recovered when the waste substitutes for a natural raw material. However, Article 12 of the EC Waste Shipment Regulation presents grounds for objection in this case as well, in particular by virtue of one of the following points (as per Article 12):

- lit. g. the proportion of recoverable and non-recoverable waste, the estimated value of the materials ultimately recoverable or the cost of the recovery and the cost of the disposal of the non-recoverable fraction do not justify the recovery from an economic and environmental perspective;
- lit. h. the shipped waste is intended for disposal and not for recovery;
- lit. i. the waste is to be treated in a facility in accordance with Directive 96/61/EC (replaced by Industrial Emissions Directive 2010/75/EU), but not using the best available techniques within the meaning of Article 9(4) (now Article 3(10) of the Industrial Emissions Directive) of the aforementioned Directive in compliance with the approval granted for the facility;
- lit. j. the waste in question is not treated in compliance with the binding environmental protection standards for recovery or binding recovery or recycling requirements under EU law, and therefore also in cases in which temporary exemptions are granted;

- lit. k. the waste in question is not treated in accordance with waste management plans created in accordance with Article 7 of Directive 2006/12/EC (now Article 28 of Directive 2008/98/EC), to ensure compliance with binding recovery and recycling requirements under EU law.

The grounds for objection as per g) are often subsumed under the term "sham recovery". The R and D operations under the Waste Framework Directive are not the criteria used for classification within the meaning of g) because identical technological processes are frequently designated with both an R code and a D code.

It is clear that an export for "sham recovery" is only intended if this is more cost-effective than domestic disposal for the waste holder. Whether or not this saving of resources justifies the treatment based on the actual cost savings (which also includes a saving/reduction of environmental contamination) can only be answered on a case-by-case basis. Therefore, a general limit value cannot be set for the portion of recovered materials, although a comparison can be made with the respective natural resources according to the definition of recovery as a substitute for natural raw materials. For example, the content of metals in many ores is given as a percentage range.

Therefore, if comparable quantities of metal can be extracted from waste and the remaining waste does not have a greater environmental impact than the residue from primary metal extraction, this recovery is justified under economic and environmental considerations. Based on these considerations, the recovery of precious metals (such as in catalytic converters, galvanic sludges or ground material from printed circuit boards) is deemed to be recovery even if it only accounts for a few 100 ppm. In contrast, a two-digit percentage of metal content in waste marks the limit between real recovery and sham recovery in the case of iron.

The C/P treatment of oil and water mixtures can be assessed in a similar manner. If the oil content is a few percent, the emulsion splitting and recovery of the oil portion (e.g. as a fuel substitute) must be defined as a disposal operation D9 (C/P treatment prior to final disposal).

If conversely, the water content amounts to only a few percent, and equivalent conditions exist as for processing natural raw materials (oil), the emulsion splitting must therefore be classified as recovery of organic substances – process R3 recycling/reclamation of organic substances which are not used as solvents.

With regard to the recovery of mixtures of municipal waste, special consideration must be given to the fact that the correct collection and treatment of this type of waste, like the disposal of water and waste water, is part of the general interest and that within the European Union, significant differences exist in treatment processes and treatment costs.

The incineration of mixtures of municipal waste in a waste incineration plant with energy recovery is classed as R1 recovery (if a minimum efficiency of energy recovery is achieved), but at the same time the EC Waste Shipment Regulation grants that objections can be raised as in the case of disposal based on special circumstances regarding this waste stream. This ground for objection does not apply to separately collected household-type commercial waste.

In general, the metal content of mixtures of municipal waste is a few percent and as such, the recovery of the metal portion alone does not justify classification of the treatment as recovery. The predominant organic portion is generally sent for thermal treatment.

If the quality criteria of the Austrian Waste Incineration Ordinance are met for waste fuels when processing the fuel (RDF – refuse-derived fuel), the overall assessment provides for other recovery. If this quality target is not met or cannot be met and the residual waste must be transported to a dedicated waste incineration plant as a mixture of municipal waste, the objection of sham recovery (according to Article 12(g)) shall obviously apply.

Transboundary shipment of mixed municipal waste (in Annex V to the EC Waste Shipment Regulation, code Y46) is always subject to notification requirements. This also applies to pretreated municipal waste whose properties have not been significantly altered by the treatment (e.g. only metal separation). Waste fuel fractions from the processing of municipal and commercial waste and other mixed fractions are also subject to notification and consent requirements.

In a process, if a waste type is only substituting for another waste type – not a raw material or a product – this only counts as recovery if the waste type being replaced was itself a substitute for a raw material or a product.

Accordingly, incorporation of waste into a landfill shall not be considered recovery, even if special properties of the waste are used (such as intermediate covering of landfill sections with construction rubble to prevent drifts, or the filling of drivable landfill areas with waste). This is not a recovery measure, but rather a state-of-the-art landfill operation method (= landfilling of waste).

As a rule, other structural measures within the landfill body, such as construction of stabilisation and partition embankments, are built using waste, not raw materials. Therefore, as a rule, waste used for measures of this kind is not substituting for raw materials. Moreover, because it is difficult to draw the line between this and directly land-filled waste, these measures are not regarded as recovery. This is also indicated in the Austrian Contaminated Site Remediation Act 1989 ("ALSAG"). As per Section 3(1)(1)(a) introduction of waste into a landfill body is subject to payment of contributions even if this is associated with landfill structures or other purposes (such as roads, boundary or supporting walls, intermediate covers, etc.).

According to the provisions of the Austrian Landfill Ordinance 2008, Federal Law Gazette II No 39/2008, as amended by the Ordinance in Federal Law Gazette II No 291/2016, the only exemptions from the contributions are for recultivation layers and landfill surface covers that have been created and the use of "recycled construction materials" created from excavation soils for the construction of approved landfill bottom sealing systems, approved bottom drainage systems or approved landfill surface covers according to the provisions of Section 3 of the Recycled Construction Materials Ordinance, Federal Law Gazette II No 181/2015, as amended by the Ordinance in Federal Law Gazette II No 290/2016, or as per the provisions of the Federal Waste Management Plan (cf. Section 3(3a and 3c) ALSAG 1989).

Landfilling must always be carried out in a manner that minimises emissions and ensures a stable landfill body. If the national regulations of another country classify landfilling as recovery, an objection must nevertheless be raised, by virtue of Article 28 of the EC Waste Shipment Regulation (precedence of stricter procedures), against shipping of this kind because under Austrian legislation, landfilling of this kind is always disposal. Approval may only be granted if a foreign facility that is at least equivalent is located considerably closer than the nearest suitable domestic landfill.



Figure 1: Market in Eritrea

9.2. NOTES ON ANNEXES III TO V OF THE EC WASTE SHIPMENT REGULATION

9.2.1. LEGAL FRAMEWORK

The EC Waste Shipment Regulation created a two-list system (the "Green Waste List and Amber Waste List") for waste intended for recovery, by implementing OECD Council Decision C (2001) 107/FINAL, as amended:

- waste types that shall be classified on the Green Waste List are indicated in Annexes III, IIIA and IIIB;
- waste types that shall be classified on the Amber Waste List are given in Annexes IV and IVA to the EC Waste Shipment Regulation.

Annex IX (List B of the Basel Convention) is an integral part of Annex III of the EC Waste Shipment Regulation.

Annex IV of the EC Waste Shipment Regulation is based on Annex II (categories of waste requiring special consideration) and Annex VIII to the Basel Convention (List A – hazardous waste within the meaning Article 1.1.a of the Basel Convention). However, specific entries from the previous list system of the OECD Council Decision C (92) 39/FINAL, which are not yet covered by the lists under the Basel Convention, were also added in Annexes III and IV. These entries can be recognised from their special codes (e.g. GC010, AA010, RB020) and were assigned to the respective annexes to the EC Waste Shipment Regulation (Annex III – Green Waste List and Annex IV – Amber Waste List).

Annexes VIII and IX to the Basel Convention are subject to a continuous review process within the Basel Convention Conference of the Parties; the amendments agreed are then adopted by the OECD or EU (but these are not adopted automatically).

At European level, Annex IIIA (defined mixtures of Green List waste subject to the general information requirements as per Article 18 of the EC Waste Shipment Regulation) and Annex IIIB (certain waste types that are only subject to the procedure under Article 18 of the EC Waste Shipment Regulation for shipments within the EU) serve as an interim solution until a decision is taken to include certain waste types in Annex IX at the level of the Basel Convention.

9.2.1.1. BASEL CONVENTION PARTIES

The latest overview (status of ratifications) is available for viewing on the website of the [Secretariat of the Basel Convention](#) (total number of parties to the Basel Convention: 185 (including the European Union), as at: February 2017).

AFRICA

Algeria, Egypt, Equatorial Guinea, Ethiopia, Benin, Botswana, Burkina Faso, Burundi, Ivory Coast, Democratic Republic of Congo, Republic of Congo, Djibouti, Eritrea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Cameroon, Cape Verde, Kenya, Comoros, Liberia, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Zambia, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Zimbabwe, Somalia, South Africa, Sudan, Swaziland, Togo, Chad, Tunisia, Uganda, United Republic of Tanzania, Central African Republic.

ASIA AND OCEANIA

Afghanistan, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, China, Cook Islands, Democratic People's Republic of Korea, India, Indonesia, Iran (Islamic Republic), Iraq, Japan, Yemen, Jordan, Cambodia, Kazakhstan, Kyrgyzstan, Kiribati, Kuwait, Laos, Lebanon, Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar (Burma), Nauru, Nepal, Oman, Pakistan, Palau, Papua New Guinea, Philippines, Qatar, Republic of Korea, Samoa, Saudi-Arabia, Singapore, Sri Lanka, State of Palestine, Syrian Arab Republic, Tajikistan, Thailand, Tonga, Turkmenistan, Uzbekistan, United Arab Emirates, Vietnam.

WESTERN EUROPE AND OTHERS

Andorra, Australia, Belgium, Denmark, Germany, Finland, France, Greece, Ireland, Iceland, Israel, Italy, Canada, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, New Zealand, Norway, Austria, Portugal, Sweden, Switzerland, Spain, Turkey, United Kingdom of Great Britain and Northern Ireland, Cyprus.

CENTRAL AND EASTERN EUROPE

Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Estonia, Georgia, Croatia, Latvia, Lithuania, Montenegro, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Czech Republic, Former Yugoslav Republic of Macedonia, Ukraine, Hungary.

LATIN AMERICA AND CARIBBEAN

Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Cuba, Columbia, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela.

POLITICAL AND/OR ECONOMIC ORGANISATIONS:

European Community

9.2.1.2. COUNTRIES NOT PARTY TO THE BASEL CONVENTION

It is prohibited to export any and all waste types into the following countries and to import any and all waste types out of the following countries:

- UN Member States that are not parties to Basel:
Angola, Fiji, Grenada, Haiti, San Marino, Solomon Islands, East Timor, Tuvalu, the US (only applies to disposal due to OECD membership), Vanuatu.
- Kosovo and South Sudan are neither UN Member States nor parties to the Basel Convention.

9.2.1.3. OECD COUNTRIES

The latest list is available on the [OECD website](#) (total number of OECD countries: 35, as at: Spring 2017).

OECD countries: Australia, Belgium, Chile², Denmark, Germany, Estonia, Finland, France, Greece, Ireland, Iceland, Israel, Italy, Japan, Canada, Korea, Latvia, Luxembourg, Mexico, New Zealand, Netherlands, Norway, Austria, Poland, Portugal, Sweden, Switzerland, Republic of Slovakia, Slovenia, Spain, Czech Republic, Turkey, Hungary, United Kingdom, United States.

Comment: in accordance with EC Regulation No 740/2008, Liechtenstein shall be considered a state to which the OECD Council Decision applies.

2013 saw the start of entry talks with Columbia and Latvia, and 2015 with Lithuania and Costa Rica. Entry talks with the Russian federation have been postponed. Bulgaria is also making efforts to join the OECD.

9.2.1.4. EU MEMBER STATES

EU Member States (28, as at 2017): Belgium, Bulgaria, Denmark, Germany, Estonia, Finland, France, Greece, Ireland, Italy, Croatia, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Austria, Poland, Portugal, Romania, Sweden, Republic of Slovakia, Slovenia, Spain, Czech Republic, Hungary, United Kingdom, Cyprus.

The member states are listed on the [website of the European Union](#).

Since 1 January 2016 no transitional provisions have been in effect in EU Member States regarding application of the notification procedure for waste on the Green List (Annexes III, IIIA and IIIB).

9.2.1.5. BILATERAL AGREEMENT WITH GERMANY

The Agreement between the government of the Republic of Austria and the government of the Federal Republic of Germany on the transboundary shipment of waste as per Article 30 of the EC Waste Shipment Regulation came into force on 1 July 2009. This bilateral agreement defines rules on simplifying the notification procedure for specific transboundary shipments of waste in the border territory of Austria and/or Germany (e.g. special situation of Kleinwalsertal). Details on the agreement are available on the website of the Federal Ministry of Agriculture, Forestry, Environment, and Water Management at "Border region agreement between Austria and Germany/entry into force: 1 July 2009".

²As at this date, Chile still has not transposed the OECD Decision (as at 2016).

9.2.2. THE EC WASTE SHIPMENT REGULATION

The transboundary shipment of waste is governed under international law by the Basel Convention. Since 12 July 2007, the EU Regulation on the Shipment of Waste (Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste) has applied in the EU. OECD countries that are not EU Member States apply OECD Council Decision C(2001)107/FINAL (exception: Chile – as at 2016).

9.2.2.1. EXCEPTIONS FROM THE APPLICATION

The EC Waste Shipment Regulation shall not apply to:

- The offloading to shore of waste including waste water and residues generated by the normal operation of ships and offshore platforms (if binding international agreements exist; e.g. the International Convention for the Prevention of Pollution from Ships – MARPOL);
- Waste generated on board vehicles and trains as well as on board aircraft and ships, namely up to the time of offloading this waste for recovery or disposal;
- Radioactive waste in the sense of Article 2 of Council Directive 92/3 Euratom (replaced by Article 4 of Directive 2006/117/Euratom) on the supervision and control of shipments of radioactive waste;
- Shipment of animal by-products (waste) including processed products falling under the approval requirements of Regulation (EC) No 1774/2002 (replaced by Regulation (EC) No 1069/2009 laying down health rules as regards animal by-products and derived products not intended for human consumption (the ABP Regulation)); for transboundary shipment, animal by-products of categories 1 and 2 and mixtures of these are not subject to the provisions of the EC Waste Shipment Regulation. As approval requirements also apply under the aforementioned veterinary regulation to processed animal proteins of categories 1 to 3, if these originate from animal carcass processing plants, the transboundary shipment of processed animal proteins (meat-and-bone meal) of category 3 derived from these plants for recovery or disposal no longer falls under the provisions of the EC Waste Shipment Regulation. The same applies to carcasses of animals that did not die by slaughter, including animals killed to eradicate animal diseases and disposed of in accordance with Regulation (EC) No 1069/2009;
- Waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries falling under Directive 2006/21/EC on the management of waste from extractive industries;
- The shipment of waste from the Antarctic into the Community in accordance with the Protocol on Environmental Protection to the Antarctic Treaty (1991);
- Import, into the Community, of waste generated from the deployment of armed forces or aid organisations in crisis situations or within the framework of peacemaking or peacekeeping measures, insofar as this waste is shipped directly or indirectly to the state of destination by the armed forces or aid organisations in question or on their behalf (for further details, see Chapter: 9.2.2.2.);
- The shipment of CO₂ for the purposes of the geological storage as per Directive 2009/31/EC on the geological storage of carbon dioxide;
- Faeces, straw and other natural non-hazardous agricultural and forestry materials that are used in agriculture or forestry or to produce energy from biomass using processes and methods that do not harm the environment or human health, to the extent that this shipment is already subject to other Community regulations with similar provisions (e.g. EU Fertiliser Regulations or the ABP Regulation);
- Gaseous effluents emitted into the atmosphere;
- Sediment transferred for the purposes of managing bodies of water and watercourses or preventing flooding or weakening the effects of flooding or droughts or for reclaiming land within bodies of surface water, insofar as this sediment has not been shown to be hazardous;
- Waste water, with the exception of liquid waste insofar as other EU regulations already exist for this shipment with similar provisions;
- Decommissioned explosives, insofar as other EU regulations already exist for this shipment with similar provisions.

9.2.2.2. WASTE IMPORTS FROM CRISIS AREAS - SPECIAL PROVISIONS

The import, into the Community, of waste generated from the deployment of armed forces or aid organisations in crisis situations or within the framework of peacemaking or peacekeeping measures is not subject to the EC Waste Shipment Regulation, insofar as this waste is shipped directly or indirectly to the state of destination by the armed forces or aid organisations in question or on their behalf.

In these cases however, any competent authority of transit and the competent authority of destination within the Community shall be informed in advance of the shipment and its destination.

In this context, reference is made to the use of the document prepared by the EU Commission for the harmonisation of reports – see Correspondents' Guidelines No 2 on Article 1(3)(g) of the EC Waste Shipment Regulation, which is provided on the [website of the European Commission](#).



Figure 2: Border control in the course of transboundary shipment

		RECOVERY							
		DISPOSAL		Green list		Amber list		Hazardous waste	
		All waste	Shipment (import) from		Shipment (export) Annexes III, IIIA, to	Shipment (export) Annex IIIB, to	Shipment (import) Annexes III, IIIA, IIIB, from	Shipment (export) Annexes IV, IVA and unlisted waste, to	Shipment (import) Annexes IV, IVA and unlisted waste, from
EFTA states		Notification + consent							
Non-EFTA states		Ban							
Parties to the Basel Convention		Notification + consent					No notification Article 18		Notification + consent
Countries not party to the Basel Convention		Ban, but not in cases of **					Ban, but not for OECD Decision countries and **		Ban, but not for OECD Decision countries and **
OECD Decision countries ³⁾			No notification Article 18 ^{1) 3)}				No notification Article 18		Notification + consent
Non-OECD Decision countries			Ban ²⁾ or Notification + consent ²⁾ or No control procedure Article 18 ²⁾				Ban, but not for parties to the Basel Convention and **		Ban, but not for parties to the Basel Convention and **
** Bilateral or multilateral agreement ⁴⁾		Notification + consent					Procedure set out under bilateral or multilateral agreement		Notification + consent
** Crisis/war situations		Special exemption, REPORTING REQUIREMENTS					Special exemption, REPORTING REQUIREMENTS		Special exemption, REPORTING REQUIREMENTS

1) Exemption: Notification and consent in cases of exports of waste from Annex IIIA if this waste is intended for interim recovery in an OECD country and export to a non-OECD country for final recovery
 2) See also Regulation No 1418/2007 as amended.
 3) OECD Council Decision C(2001)107/FINAL in its latest applicable version
 4) An agreement of this kind does not currently exist for Austria!

9.2.2.3. EC WASTE SHIPMENT REGULATION AND ANNEXES

The notification procedure must meet the legal provisions of the EC Waste Shipment Regulation, as amended, and the Waste Management Act 2002, as amended. The consolidated version of the EC Waste Shipment Regulation is available at website "[Eur-Lex – Access to European Union Law](#)".

IMPORTANT WEBSITES:

- Information and documents for submission of notification requests are available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.
This website also offers: The Annex VII document (Green List), fact sheet for shipments of waste, sample texts for contracts, subcontracts, guarantees, etc.
- Details on submission of notifications (including electronically) are available on the EDM portal.
- EU law on waste shipment is available on the [website of the European Commission](#).
- The EU Correspondents' Guidelines are available on the [website of the European Commission](#).
- Links to parties to the Basel Convention, OECD countries and EU Member States – see Chapter 9.2.1.1., 9.2.1.2., 9.2.1.3.

A. EXPORTS OF GREEN LIST WASTE TO THIRD COUNTRIES

Exports of Green List waste to third countries are governed by Commission Regulation (EC) No 1418/2007 concerning the export of certain waste listed in Annex III or IIIA to certain non-OECD countries.

This Regulation is updated regularly. The provisions of this Regulation, including amendments to these, are collected in what is known as the "country list" (of the Environment Agency in Dessau), available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

B. ANNEXES TO THE EC WASTE SHIPMENT REGULATION

The Annexes to the EC Waste Shipment Regulation break down as follows:

- Annex IA: Notification document
- Annex IB: Movement document
- Annex IC: Specific instructions for completing the notification and movement documents
- Annex II: Information and documentation related to notification
- Annex III: Green Waste List
- Annex IIIA: Mixtures of two or more wastes listed in Annex III and not classified under one single entry ("Mixtures of wastes from the Green Waste List")
- Annex IIIB: Waste on the Green List that is also indicated as waste awaiting a decision on its inclusion in the relevant annexes to the Basel Convention or the OECD Decision ("Other green-listed waste within the EU; Notification outside the EU")
- Annex IV: Amber Waste List
- Annex IVA: waste listed in Annex III but subject to the procedure for prior written notification and consent ("Green-listed waste subject to notification at EU level")
- Annex V: Ban on the export of hazardous waste to non-OECD states
- Annex VI: Form for pre-consented facilities (Article 14 EC Waste Shipment Regulation)
- Annex VII: information accompanying shipments of waste as referred to in Article 3(2) and (4) (waste on the Green Waste List and laboratory samples)
- Annex VIII: Guidelines on environmentally sound management
- Annex IX: Additional questionnaire for reports by member states pursuant to Article 51(2)

9.2.2.4. THE EU CORRESPONDENTS' GUIDELINES AND SUPPLEMENTAL NATIONAL CLARIFICATIONS

A. OVERVIEW OF THE EU CORRESPONDENTS' GUIDELINES

These Correspondents' Guidelines represent the joint opinion of all member states on the issue of how Regulation (EC) No 1013/2006 on the shipment of waste is to be interpreted.

The guidelines were agreed by the Correspondents at the meetings held in accordance with Article 57 of the EC Waste Shipment Regulation. They are not legally binding.

The binding interpretation of EU law falls under the exclusive jurisdiction of the European Court of Justice. The guidelines will be modified after several years as required.

Correspondents' Guidelines No 1 – Shipment of waste electrical and electronic equipment for reuse and associated requirements (for national clarifications, see Chapter 9.2.2.4.B.)

Correspondents' Guidelines No 2 – Information document in accordance with Article 1(3)(g) on shipments of waste generated by peacemaking or peacekeeping measures during crisis situations and wars

Correspondents' Guidelines No 3 – Certificate for recovery or disposal in the case of shipments of waste for initially interim recovery or disposal operations (e.g. conditioning or pre-treatment and/or interim storage) in accordance with Article 15(e)

Correspondents' Guidelines No 4 – Classification of waste electrical and electronic equipment and fly ash from coal-fired power plants

Correspondents' Guidelines No 5 – Classification of wood waste under entries B3050 or AC170

Correspondents' Guidelines No 6 – Classification of slags from processing of copper alloys under entries GB040 and B1100

Correspondents' Guidelines No 7 – Classification of glass waste originating from cathode ray tubes (CRT) under entries A2010 or B2020

Correspondents' Guidelines No 8 – Classification of waste cartridges containing toner or ink (national clarifications concerning the classification in the case of refills/upgrades, Chapter 9.2.2.4.C.)

Correspondents' Guidelines No 9 – Transboundary shipment of used vehicles – definition of end-of-life vehicles (for national clarifications, see Chapter 9.2.2.4.D.)

Correspondents' Guidelines No 10 – Shipment of waste as per Article 18 of the EC Waste Shipment Regulation

The guidelines are available from the [website of the European Commission](#).

B. PROVISIONS ON SHIPMENT OF USED ELECTRICAL AND ELECTRONIC EQUIPMENT

Based on the provisions of Annex VI to the EU Waste Electrical and Electronic Equipment Directive 19/2012 or in Annex 6 to the Austrian Waste Electrical and Electronic Equipment Ordinance, Federal Law Gazette II No 121/2005, amended by Federal Law Gazette II No 193/2014, the former EU Correspondents' Guidelines No 1 has been revised and updated, setting out the minimum requirements for documentation of transboundary shipment of used electrical and electronic equipment. Moreover, the requirements of the technical guidelines³ developed within the framework of the Basel Convention must also be taken into consideration.

³ Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention

Evidence for waste status

Evidence for the waste status must be available if

- a. the used electrical or electronic equipment is intended for recovery or disposal, rather than for root cause analysis or reuse, or if it's intended purpose is uncertain;
- b. the device is incomplete, i.e. essential parts are missing (aside from power cables not permanently attached to the device) and the device cannot perform its main functions;
- c. the device exhibits a defect with a substantial impact on functionality and fails relevant functional testing;
- d. physical damage is present affecting its functionality or safety as defined in applicable standards and the device cannot be repaired with reasonable financial expenditure;
- e. the protection of devices against damage during shipment as well as loading and unloading is not sufficient, e.g. due to inadequate packaging and inadequate stacking of the cargo;
- f. the device appears worn out or damaged, significantly reducing its marketability;
- g. the equipment includes hazardous components that must be disposed under European or national law or the export or use of which in such equipment is prohibited under these provisions⁴;
- h. regular markets are not available for the electrical or electronic equipment (e.g. very old electronic devices, especially those entering the market before 2006 (ROHS Directive), very slow PCs whose processor performance is less than that of commonly used operating systems on the market, and for which software and peripherals are no longer available);
- i. the electrical or electronic equipment is destined for disassembly and cannibalization (to gain spare parts), or
- j. the price paid for the equipment is significantly less than that typically expected for fully functional equipment for the purposes of reuse.

Electrical and electronic equipment contained in bulky waste collections that was not subject to functionality checks (see presentation of inspection certificate – evidence of functionality) always automatically constitutes waste or hazardous waste.

Packaging

Packaging of used equipment for reuse is to be based on that of new products. Wrapping of TV equipment or monitors in thin film shall not under any circumstances constitute proper protection from damage. It is recommended to wrap each device in at least two layers of bubble wrap to guarantee adequate protection. Alternatively, a device may be packaged in a cardboard box with filling material (e.g. polystyrene chips). Loading must be adequately secure to prevent devices falling over, such as during unloading.

In certain cases, e.g. in the case of large white goods, packaging is not mandatory from Austria's point of view, barring any stricter regulations in other countries: appropriate load securing is sufficient protection. In all cases, adequate measures must be taken to protect the equipment from damage during shipment as well as loading and unloading.

Failure to meet any of these criteria will essentially indicate to the bodies in question that the equipment is waste electrical and electronic equipment (waste or hazardous waste) (either for notification procedure or in the case of the classification of certain equipment as green-listed waste (see notes for entries GC010 and GC020) – provision of required accompanying documents in accordance with Article 18 of the EC Waste Shipment Regulation (Annex VII - Documents and existence of a contract)).

With respect to the shipment of non-hazardous waste electrical and electronic equipment (Green List waste) into non-OECD countries, the favoured national control procedures of these respective countries must be taken into account (see relevant Commission regulations and/or the updated country list).

In the event that hazardous waste is present, a ban on exports to non-OECD countries shall apply.

In cases of illegal waste shipments, the procedure as per Articles 24 and 25 of the EC Waste Shipment Regulation shall apply.

⁴e.g. Asbestos, PCBs, CFCs

I. SHIPMENT OF USED ELECTRICAL AND ELECTRONIC EQUIPMENT AS NON-WASTE

Accompanying documents

Any party that ships or wants to ship electrical or electronic equipment must ensure, as per Annex 6 to the Austrian Waste Electrical Equipment Ordinance, Federal Law Gazette II No 121/2005, as amended, that it is accompanied by the following documents to identify waste electrical and electronic equipment (reversal of evidence) and that these are presented to the authorities on request:

- a. a copy of the invoice and the contract relating to the sale of electrical and electronic equipment, and/or the transfer of their ownership, indicating that the equipment is intended for direct reuse and is fully functional;
- b. evidence of evaluation or testing in the form of a copy of the records (certificate of testing, evidence of functionality) on every item within the consignment and a protocol containing all records according to the indications below on equipment testing and inspection certificates;
- c. a declaration made by the holder who arranges the transport of the electrical and electronic equipment that none of the materials or devices in the consignment is waste in the sense of Article 3(1) of Directive 2008/98/EC and/or in Austria as per Section 2 of the Waste Management Act 2002 and
- d. provision of appropriate protection against damage during transport, loading and unloading, in particular by means of sufficient packaging or appropriate stacking of the load.

The **technical guidelines for the Basel Convention** (Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention - Document UNEP/CHW.12/5/Add.1/Rev.1) set out additional requirements which may be relevant to shipments to third Countries⁵.



Figure 3: Shipment of waste electrical and electronic equipment

Additional accompanying documents

In addition to the documents mentioned, all loads (e.g. shipping containers, trucks) of used electrical and electronic equipment must be accompanied by the following:

- An applicable transport document, such as a CMR waybill;
- a liability declaration from the liable party.

Note on liability: This is the liability of the party arranging the shipment/export of the used equipment, for compliance with the requirements under Annex 6 to the Austrian WEEE Ordinance or Annex VI to the EU WEEE Directive and the consequences arising from any illegal shipments (return, alternative disposal). This does not include third-party liability claims for damages/hazards due to improper repairs/refurbishments/restoration.

⁵ The Technical Guidelines are available on the [website of the secretariat for the Basel Convention](#).

Equipment testing - inspection certificates

In all cases of shipments as per Chapter I), an inspection certificate (evidence of functionality) must be submitted, declarations by the owner alone are generally not sufficient (special case: transboundary shipment of a single used device for personal reuse, e.g. when moving (no transfer of ownership!)).

NB: Shipment of used, fully-functioning waste cooling and air-conditioning units containing CFCs or also HCFCs or HFCs to third countries is prohibited in accordance with Regulation (EC) No 1005/2009 on substances that deplete the ozone layer. Exports of products and equipment containing or requiring these substances are banned insofar as these are not personal effects (individual equipment for personal use).

To prove that the objects being shipped are used electrical and electronic equipment, rather than waste electrical and electronic equipment, used electrical and electronic equipment must pass the following stages for testing and documentation of test findings:

Stage 1: Testing of functionality and assessment for presence of hazardous substances

- a. The tests conducted depend on the type of electrical or electronic device⁶. For most used electrical and electronic equipment, it will suffice to test the main functionality.

Note: A purely visual inspection of the equipment without testing its main functions is not adequate!

NB: Devices manufactured in the EU since mid-2006 must meet the hazardous substance limits of the first ROHS Directive (in particular for Cd, Hg, Pb, Cr, PBDE, PBB). Some EU Member States automatically classify functional equipment produced before 2006 as waste because it contains substances no longer permitted to be placed on the market.

- b. Assessment and test results must be recorded.

Stage 2: Recording of test results

- a. The results must be applied securely but not permanently on the electrical or electronic device itself (if no packaging) or to the packaging so it is legible without having to unpack the device.
- b. The indication shall contain the following information:
 - Object description (description of the device and the equipment category as per Annex 1 or 1a);
 - Object ID number (type number) (where available);

Note: if a serial number is not available, a self-designated unique ID number shall be provided.
 - Year of manufacture (where known);
 - Name and address of the company responsible for evidence of functionality;
 - Results of the tests described under stage 1 (identification of defective components and their defects or confirmation of full functionality) including the date of the functionality test;
 - Nature of the tests conducted.

NB: The company or institution conducting the functionality test shall be a licensed testing laboratory, a repair centre or a licensed electrical or mechatronic technician. The person in this company who conducts the functional test must have the appropriate training or comparable demonstrable knowledge.

The technical guidelines for the Basel Convention set out additional requirements which may be relevant to shipments to third countries⁷.

Excursus: Examples of required test steps for used mobile phones

- Insert and test SIM card
- Test whether the battery is functional (it must charge; mobile phones with non-functional batteries that are welded in shall be automatically regarded as waste in their entirety). If the device does not contain a battery on transfer, testing with a suitable battery is always mandatory. Transfer/sale of tested used mobile phones (without batteries) as non-waste is only permitted if the test report indicates that the device will be fully functional for its main functions once a new battery is inserted.

⁶ The test should be based on standard: ÖVE/ÖNORM E8701 Testing after restoration and modifications and regular testing of electrical equipment or a comparable standard.

⁷ The Technical Guidelines are available on the [website of the secretariat for the Basel Convention](#).

- Speaker and microphone test
- Functionality test for the touchscreen and entry via the display (the glass can be broken, but the touchscreen must be functional)
- Testing of buttons/joystick – for push-button phones, the button functions must be tested
- The mobile phone must switch on and boot up to the main menu
- The mobile phone shall not be broken into parts



Figure 4: Waste mobile phones

Under the following conditions, a mobile phone is deemed defective and so is waste electrical equipment (waste):

- The mobile phone can no longer be switched on and started up
- Entry via the display/touchscreen no longer works
- The mobile phone does not charge
- Buttons/joystick do not work
- The speaker or microphone do not work
- The mobile phone is broken into parts
- The device is the subject of a product recall campaign: these devices shall not under any circumstances be put onto the market as reused mobile phones, tablets, etc. These devices shall be subject to waste recovery. Functional individual components may, however, be reused.

Mobile phone accessories, such as charging devices, shall also be tested.

NB: In order to prevent misuse of data and third-party liability claims, a certified DATA DELETION should be carried out, but at least a "factory reset" must be performed.

Repairworthiness/minor repairs

Shipment of non-waste is also permitted if the equipment can perform its main functions and can be made fully functional with "minor repairs" and is "repairworthy".

The term "minor repair" must be interpreted in a strict sense and according to the Austrian interpretation, it means "removal of a defect that is not essential to the functionality of the equipment and that does not affect the safety of the equipment, by simple means and in a short period of time", where a feasibility assessment shall also be considered for repairworthiness (the repair costs in Austria must be less than the replacement value of the device). In this regard, please refer to Article 28 of the EC Waste Shipment Regulation, under which the stricter classification prevails.

For instance, installation of a new button would fall under "minor repairs". The replacement of essential components for the functioning of equipment, such as the removal of cathode-ray tubes or motors, cannot under any circumstances be classified as "minor repairs".

Battery/accumulator replacement

If used equipment consisting mainly of batteries by mass only requires a replacement battery, then the used battery must be removed prior to the transboundary shipment, and the "evidence of functionality" must state that the equipment can be made fully operational again with a new battery. Batteries with a charging capacity of less than 40% of the nominal capacity or equipment containing these batteries shall always be classified as hazardous waste.



Figure 5: Waste accumulators

II. SHIPMENTS OF USED EQUIPMENT WITHIN THE FRAMEWORK OF INTERCOMPANY TRANSFER AGREEMENTS

This only applies to duly signed return shipment of used electrical and electronic equipment back to the manufacturer or third parties acting on its behalf (B2B transfer).

The requirements indicated under Chapter I)(a) (copy of the invoice and the agreement on the sale/transfer of ownership) and b) (inspection certificate) and requirements on testing of equipment do not apply if **conclusive documents** demonstrate that the shipment is taking place within the framework of an **intercompany transfer agreement** for the specific purposes indicated below.

Three cases are distinguished for intercompany transfer agreements. In all of these cases, it is always necessary to verify the legal situation in the state of destination, particularly as the stricter procedure must always be used as per Article 28 of the EC Waste Shipment Regulation.

Warranty

Defective electrical and electronic equipment is sent back to the manufacturer or a third party acting on its behalf for repairs under a warranty for the purposes of reuse.

NB: If it is known from the outset that the equipment is irreparable and it will be scrapped or salvaged (for parts) by the manufacturer or a third party acting on its behalf, then this is not a case of reuse but rather recovery of waste. In these cases, transboundary shipment is subject to the provisions of the EC Waste Shipment Regulation (export ban on hazardous substances to non-OECD countries).

Repair/refurbishment of used equipment

Used electrical and electronic equipment for commercial use⁸ shall be sent, for refurbishment or repair under a valid agreement for the purpose of reuse, to the manufacturer or a third party acting on its behalf or an institution of third parties⁹ in countries subject to OECD Council Decision C(2001) 107/FINAL amending Decision C(92)39/FINAL on the control of transboundary movements of waste for recovery.

NB: If it is known from the outset that the equipment is irreparable and will be scrapped or salvaged (for parts) by the manufacturer or a third party acting on its behalf, then this is not a case of shipment for reuse but rather recovery of waste. In these cases, notification is required for any hazardous equipment present, and any non-hazardous waste can be classified on the Green List (Annex III of the EC Waste Shipment Regulation).

It is not permitted to return used equipment as non-waste to the manufacturer or a third party acting on its behalf for equipment repairs/refurbishment in non-OECD countries!

Root cause analysis

Defective used electrical and electronic equipment for commercial use⁸, such as medical devices or their parts, shall be sent to the manufacturer or a third party acting on its behalf under a valid agreement for root cause analysis if an analysis of this kind can only be performed by the manufacturer or a third party acting on its behalf.

NB: These can only be individual cases. For legal certainty, please refer to the notice of assessment instrument as per Article 6 of the Waste Management Act 2002. In any case, it is necessary to check the legal situation in the country of import.

The following conditions must always be met:

- **declaration of the holder** who arranges the transport of the electrical and electronic equipment that none of the materials or devices in the consignment are waste in the sense of Article 3(1) of Directive 2008/98/EC or in Austria as per Article 2 of the Waste Management Act 2002 and
- **appropriate protection against damage** during transportation, loading and unloading in particular through sufficient packaging or appropriate stacking of the load.

Agreements

For documentation of the above shipments of an intercompany transfer agreement (B2B transfer), they shall be accompanied by agreements between the person arranging the shipment and the manufacturer or the third-party institution (that is independent of a manufacturer or of a third party acting on its behalf), indicating the purpose of the shipment and the type and quantity of equipment.

If shipments are made to a third party acting on behalf of the manufacturer or an institution of third parties, then corresponding agreements or sub-agreements between the manufacturer and the third parties or institution of third parties acting on its behalf must be presented, indicating the purpose of the shipment and the type and quantity of the equipment.

The **technical guidelines for the Basel Convention**¹⁰ set out special requirements for the minimum content of these agreements, which may be relevant to shipments to third countries. In this regard, reference shall be made also to the statements in EU Correspondents' Guidelines No 1. Moreover, corresponding forms have been developed at the Basel Convention level that were adapted to EU requirements in the framework of the Correspondents' Guidelines No 1 and that should be taken along during the transboundary shipment of used electrical and electronic equipment. These forms are printed on the two following pages.

⁸ Commercial use: Electrical and electronic equipment that will potentially be used by private households as well as users other than private households shall always apply as electrical or electronic equipment from private households. An equipment list is available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

⁹ A third-party institution shall be independent of a manufacturer or of a third party acting on its behalf.

¹⁰ The Technical Guidelines are available on the [website of the secretariat for the Basel Convention](#).



Figure 6: Waste electrical equipment

Template form according to the Technical Guidelines of the Basel Convention

Information to be added in the case of the transboundary shipment of used electrical and electronic equipment for the purpose of reuse

1. Holder who arranges the transport (responsible for testing): Name: Address: Contact person: Tel: E-mail:		2. Company responsible for evidence of functionality (if different than holder who arranges for the transport): Name: Address: Contact person: Tel: E-mail:		3. User or retailer or distributor: Name: Address: Contact person: Tel: E-mail:	
4. Declaration: I, the person who conducted the evaluation and testing, declare that the results of evaluation and testing are complete and correct, to the best of my knowledge. Name: _____ Date: _____ Signature: _____ I, the holder who arranges the transport of the EEE listed below, hereby declare that prior to dispatch the used EEE listed below was tested and is fully functional ¹ . I confirm that this EEE is not defined as or considered to be waste in any of the countries involved in the transport and is destined for direct re-use ² and not for recovery or disposal operations. I declare that an invoice and contract relating to the sale and/or transfer of ownership of the EEE is in place. Name: _____ Date: _____ Signature: _____					
5. Name of the item ³	6. Name of the producer (if available)	7. Identification number (type No.) (if applicable)	8. Year of production (if available)	9. Date of functionality testing	10. Kind of tests performed and results of test (e.g. indication of full functionality or indication of defective parts and defect) ⁴
¹ EEE is "fully functional" if it has been tested and demonstrated to be capable of performing the key functions it was designed to perform. ² The using again of fully functional EEE that is not waste for the same purpose for which it was conceived without the necessity of repair or refurbishment. ³ List the EEE for which the information in the boxes 1 to 3 is the same and that is intended to be moved together and identify the names of the EEE if listed in Annex II or Annex IV to the WEEE Directive, as appropriate, and category set out in Annex I or Annex III to the WEEE Directive, as appropriate. ⁴ Attach details in accordance with paragraph 15 EU Correspondents' Guidelines No1 where appropriate.					

Template form according to the Technical Guidelines of the Basel Convention

Information to be added in the case of the transboundary shipment of electrical and electronic equipment for the purposes specified under box 4 of this form

1. Holder who arranges the transport Name: Address: Contact person: Tel.: Fax n: E-mail:	2. Receiving facility Name: Address: Contact person: Tel.: Fax: E-mail:	3. Description of the EEE (e.g. name):
4. Purpose of the transport¹: <input type="checkbox"/> Repair under warranty <input type="checkbox"/> Refurbishment <input type="checkbox"/> Repair <input type="checkbox"/> Root cause analysis		5. Start date of the transport:
6. Actual quantity:		
7. Countries/States concerned:		
Export/dispatch	Transit	Import/destination
8. Declaration of the holder who arranges the transport of the EEE: I declare that I am entitled to represent my company legally and that: (a) The EEE in this transport is EEE that is not defined as or considered to be waste in any of the countries involved in the transport. (b) The shipment is taking place in the framework of a business-to-business transfer agreement. A contract ² fulfilling the conditions set out in paragraph 13 of the Correspondents guidelines No 1 and if applicable a contract according to paragraph 14 of these guidelines is in place. (c) The used EEE, in case of shipments according to paragraph 12(b) or (c) of the Correspondents' guidelines No 1, is used EEE for professional use ³ only. (d) Upon request from the relevant authorities, I will make available underlying documentation (e.g. contracts or equivalent documents) that can be used to verify the statements contained in subparagraphs (a) and (b) above.. (e) The above information is complete and correct to the best of my knowledge Name: Function: Date: Signature:		
TO BE COMPLETED BY THE RECEIVING FACILITY		
9. Movement received at the receiving facility: Quantity/volume received: Name: Date: Signature:		
<p>¹ If multiple options apply to the EEE, please indicate them all. ² Or equivalent document in cases where there is no change of ownership of the EEE. ³ EEE for professional use is EEE that is designed to be used solely by professional users. EEE that is likely to be used by private households, or by private households as well as by professional users is not EEE for professional use.</p>		

C. EU CORRESPONDENTS' GUIDELINES NO 8 ON TONER AND INK CARTRIDGES

A distinction may in principle be made between cartridges with and without hazardous ingredients. If toner and ink cartridges with and without hazardous toner/ink residues are in a mixture, or if it is not known in advance whether all of these toner and ink cartridges are actually non-hazardous, such mixtures must be handed over as hazardous waste along with a consignment note. Transboundary shipment of a mixture of this kind shall always require a notification and consent (Basel Code: A1180).

The safety data sheets or product information, in particular, must be taken into consideration for correct classification. With respect to the classification of empty toner and ink cartridges as hazardous or non-hazardous waste (thus triggering the assignment to Annex III), different national approaches in EU Member States may be taken because not all hazard characteristics under waste regulations have been harmonised yet (cf. in particular testing of criterion HP14 - ecotoxic). Furthermore, there may be differing interpretations as to whether the refilling of empty toner or ink cartridges without hazardous ingredients, or upgrading or conversion to other models fall under the waste management system (see the different definition of "Preparation for reuse"), or if this falls under non-waste (see national interpretations on reuse on the next page).

In accordance with the provisions of Article 28 of the EC Waste Shipment Regulation, the more stringent procedure shall always prevail for any differing classification by the competent authorities.

Shipment of waste for recovery (recycling)

Empty toner and ink cartridges without hazardous toner and ink residues (according to present knowledge, this is the situation for the vast majority of toners on the market; black toners no longer contain any toxic ingredients) and drum-driven cartridges with unproblematic organic photo-conducting (OPC) coatings or with a scratch-proof amorphous silicon or zinc oxide coating are classified under EWL code 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*, even if the cartridges come from equipment that is still in use. The cartridges must be subsumed under entry GC020 in Annex III (Green List) to the EC Waste Shipment Regulation.

Toner and ink cartridges with hazardous toner and ink residues (e.g. toners and inks classified as toxic, carcinogenic, mutagenic or toxic for reproduction) or drum-driven cartridges containing hazardous substances such as cadmium sulphide or selenium-arsenic compounds are classified under EWL code 16 02 15* (hazardous components removed from discarded equipment) in accordance with the European List of Waste, even if the used cartridges come from equipment that is still in use.

Toner and ink cartridges with hazardous residues are assigned to entry A1180 of Annex IV (Amber List) to the EC Waste Shipment Regulation and are always subject to notification requirements for the transboundary shipment of waste.

Exports to non-OECD countries are prohibited.

Shipment for reuse

The prior sorting of cartridges is necessary before their shipment for the purposes of refilling or upgrade/conversion to another model. The sorting operation need not apply to specific brands or models, but rather is required in order to separate any such cartridges which are not suitable for refilling or upgrading and which must accordingly be disposed of as waste.

Furthermore, toner and ink cartridges with hazardous toner and ink residues must be separated, even if they are intended for refilling/upgrade/conversion to other models; this is because a mixture of ink and toner cartridges with and without hazardous toners and inks always requires notification with respect to transboundary shipments.

Product

For the shipment of sorted (empty) toner or ink cartridges that do not contain hazardous toner and ink and are intended for reuse in the sense of refilling, upgrading or conversion to other models, the cartridges shall not be assumed to be intended for disposal or deemed waste in the public interest. As a result, this is not a shipment of waste.

It should be noted that some states require cartridges to be cleaned, in addition to the sorting operation prior to transboundary shipment, for classification as non-waste. As a result, the current status (waste/non-waste) in the importing country must be clarified prior to the transboundary shipment.

The fact that it is not waste in these cases must be backed up with evidence for any transboundary shipment (such as by submission of an agreement for refilling/upgrade/conversion to another model, written confirmation from the holder that the cartridges do not contain hazardous toners or inks, quantities of the cartridges currently being shipped, brand name).

Waste

Toner and ink cartridges which contain hazardous toner and ink residues must be treated as waste in the public interest due to their hazardous components. Shipments of toner and ink cartridges containing hazardous toner and ink residues for the purpose of refilling, upgrading or conversion to another model are therefore subject to the EC Waste Shipment Regulation as well as notification requirements (Basel Code: A1180).

D. EU CORRESPONDENTS' GUIDELINES NO 9 ON CLASSIFICATION OF USED VEHICLES

The provisions of EU Correspondents' Guidelines No 9, taking into account the stricter requirements as per the Decision of the Federal Ministry of Agriculture, Forestry, Environment, and Water Management (BMLFUW-UW.2.1.6/0033-V/2/2015) of April 2015 on the Austrian End-of-Life Vehicle Ordinance shall be authoritative for transboundary shipment of used vehicles. This decision is available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

Used vehicles

A vehicle is assumed to be used if it is roadworthy and/or can be brought up to a condition in which it can be licensed for road use (under Austrian law) with repair expenditures that make sense from an economic point of view and on the basis of Austrian costs. In addition to roadworthiness, operational and road safety are also required. The ratio of repair costs to fair value is a decisive criterion in assessing the waste status of vehicles with respect to repairworthiness. Repair costs in Austria shall not significantly exceed the fair value of the vehicle.

Since 1 January 2016, by virtue of Regulation (EU) No 660/2014 amending the EC Waste Shipment Regulation, an obligation to provide comprehensive written proof (proof of the origin and destination and non-waste status as well as evidence of functionality) is now also legally binding throughout the EU for the distinction between end-of-life and used vehicles.

Submission of a certificate¹¹ of reparability and roadworthiness of the vehicle in question as per Annex 3 of the EU Correspondents' Guidelines No 9 by a vehicle expert for classification as non-waste is a key indication to support the declaration of used vehicle status (cf. reverse burden of proof). This certificate shall indicate, clearly and comprehensibly, the identification of the vehicle, any defects and the economic reparability in Austria, as well as the required replacement parts.

Provision of proof of "used vehicle" status from the waste holder

A motor vehicle report as per Article 57a(4) of the Austrian Motor Vehicles Act 1967 (the "KFG 1967"), Federal Law Gazette I No 267/1967, as amended, a motor vehicle technology expert's report, a report from a sworn and certified expert under 17.11 in the nomenclature as per the Austrian Expert and Interpreter Act (the "SDG"), as amended, a report of a master of the trade of motor vehicle technology or a report of a master of the trade of vehicle body construction or painting technologies shall be used as an objective criterion for assessment of a vehicle's repairworthiness for proper use, and thus also proof from the holder that the vehicle is not waste.

A motor vehicle waste testing tool, for instance, may also be used as an aid for experts and factory workshops for the distinction in experts' reports between used and end-of-life vehicles with regard to reparability in Austria. The decisive criterion shall always be the repairs needed to make the vehicle operationally safe and road-safe so it is permissible for use in Austria. These costs must be assessed in relation to the replacement value (minus repair costs for damage not relevant to Article 57a KFG). This "costing under waste legislation" shall at least apply the costs for after-market parts and reasonable repair costs at domestic repair shops for calculation of the objective reduction in value (including

¹¹ Some member states have defined specific timeframes (e.g. documentation of technical testing conducted no more than one month before shipment).

taxes).

Special cases for non-waste

Classic cars ("vintage")

Classic cars ("vintage") shipped across borders for repairs or restoration are typically not waste. In certain cases, vintage cars that are partly or fully dismantled may take waste status in cases of improper storage, transport or processing (cf. recognition in the public interest, such as due to environmental hazards from leaking fluids or fuel vapours).

As per Article 2(1)(43) KFG 1967 vehicles that are worthy of preservation and not intended for current use and a) were built in 1955 or before, or b) are over 30 years old and entered in the Classic Motor Vehicles List by the Federal Minister for Transport, Innovation, and Technology are deemed to be classic vehicles (vintage).

"Modern classics"

One special case in assessing repairworthiness is damaged vehicles with scarcity value, for which the projected future collector's value considerably exceeds the current fair value (modern classics). A report from a sworn and certified expert under 17.11 or 17.47 in the nomenclature under the Austrian Experts and Interpreters Act (the "SDG"), as amended, shall be used as proof, from the vehicle owner, that a damaged vehicle of this kind is not waste. This shall apply accordingly to damaged replacement parts for vehicles of this kind.

Return shipment of a damaged vehicle to the country of registration

Special case: Unless for the purposes of recovery ("disposal"), the transboundary shipment of a single registered vehicle (including a write-off) by the original vehicle owner or the insurance company of the vehicle's liability insurance into the country of registration for the purposes of reuse and/or repair shall not constitute transboundary shipment of waste, unless its processing as waste is in the public interest! Any differing legal views in the country from which the vehicle is being returned shall always prevail (Article 28 of EC Waste Shipment Regulation – Precedence of stricter classification – notification requirement).

Shipment of end-of-life vehicles to a country other than that of registration shall always constitute a transboundary waste shipment!

The vehicle shall always be considered waste if it will be used for spare parts gaining or is destined for the shredder. End-of-life vehicles are hazardous waste unless they have been decontaminated.

Criteria for assessing repairworthiness:

- Fair value (see [Eurotax list](#), up to year of manufacture: 2004 or similar [car evaluation programmes](#))
- Condition (amount of damage, vehicle year of manufacture, mileage (if visible))
- Cost of repairs (estimate)
- Purchase price as potential indicator (note: the actual purchase price does not have to be identical to the price indicated in the documents).

NB: If a vehicle contains hazardous substances in its components such as CFCs or HCFCs in the A/C system or cooling units whose disposal is required or whose export (to third countries) is prohibited as per European law (cf. EC Regulation No 1005/2009 on substances that deplete the ozone layer) or national laws (excluding individual vehicles for personal use, e.g. continued use after a move (no transfer of ownership)), it shall be considered to be waste.

Note: HFCs, such as R134a, would be a coolant that is still permitted at this time.

End-of-life vehicles shall always be deemed to meet waste status if they exhibit the mere possibility of a hazard to the public interests listed in Article 1(3) of the Waste Management Act 2002 and it is no longer generally regarded as in proper use and/or cannot be brought into proper use at an economically justifiable expense (repairworthiness).

The recognition and treatment of vehicles as waste in the public interest in the sense of the Waste Management Act 2002 shall be necessary whenever an environmental hazard is present on any of the following grounds:

- Leakage of fuel or fuel vapours (risk of fire and explosion in the event of leaks)
- Leaky liquefied gas systems (risk of fire and explosion)
- Leakage of operating liquids (hazard to impure water by fuel, oil, brake fluid, antifreeze, battery acid, coolant)
- Significant impact on the landscape.

Transboundary shipments of end-of-life and used vehicles

According to the EC Waste Shipment Regulation, the transboundary shipment of non-decontaminated end-of-life vehicles into EU Member States and OECD Decision states (countries that have implemented OECD Council Decision C(2001)/107/FINAL into law) shall require notification and consent from the Federal Ministry of Agriculture, Forestry, Environment and Water Management and approval of the competent authorities in the countries involved in the transboundary shipment (country of destination, transit countries).

The export of undrained end-of-life vehicles into non-OECD Decision countries is prohibited.

NB: Shipment of end-of-life vehicles to other countries shall not enable any refund of the Austrian car registration tax.



Figure 7: End-of-life vehicles

Sample certificate of reparability form as per EU Correspondents' Guidelines No 9

„Vehicle is repairable“ Certification

1. Name und Anschrift des Fahrzeugbesitzers /
Name and address of the vehicle holder

[Redacted area for item 1]

2. Fahrzeugmarke und -modell / Vehicle brand and model

[Redacted area for item 2]

3. Fahrzeugidentifizierungsnummer (FIN) / Vehicle identification number (VIN)

[Redacted area for item 3]

4. Kilometerstand auf dem Tacho / Mileage on the clock

[Redacted area for item 4]

5. Derzeitiger geschätzter Marktwert / Estimated current market value

[Redacted area for item 5]

6. Zu reparierende Teile / Parts to be repaired

[Redacted area for item 6]

7. Art der Überprüfung / Testing procedure for the vehicle

[Redacted area for item 7]

8. Name und Anschrift der Einrichtung, in der das Fahrzeug getestet wurde /
Name and address of the vehicle testing facility

[Redacted area for item 8]

9. Name und Kontaktdaten des Prüfers oder Sachverständigen /
Name and contact details of the inspector or motor vehicle assessor

[Redacted area for item 9]

10. Ich erkläre hiermit, dass oben genanntes Fahrzeug reparaturfähig ist und in einen Zustand gebracht werden kann, in dem es gemäß seinem ursprünglichen Zweck unter Einhaltung europäischer Sicherheitsstandards wieder genutzt werden kann. / I declare that the vehicle specified is repairable and can become suitable for use for its original purpose, meeting European Safety Standards.

[Redacted area for item 10]

Unterschrift des Prüfers oder Sachverständigen

Datum und Stempel der Einrichtung

Signed by the authorised inspector or motor vehicle assessor

Date and stamp of the facility

[Redacted area for signature and stamp]

*FOR SHIPMENTS INTO AND OUT OF AUSTRIA: AUSTRIAN SAFETY STANDARDS

E. NATIONAL GUIDELINES ON CLASSIFICATIONS OF USED VEHICLE REPLACEMENT PARTS

With respect to the shipment of used vehicle replacement parts, it is necessary to check, under implementation of the End-of-life Vehicle Ordinance, that the shipment is carried out by individuals or companies registered in the ERAS system (what are known as "e-end-of-life vehicles"). Lack of registration may indicate that the parts were not dismantled according to the state of the art and are not functional (i.e. they are waste).

If dismantling of replacement parts was performed by an unlicensed workshop or by a vehicle dismantling facility that is not approved accordingly or registered as per the End-of-life Vehicle Ordinance, then a certificate must be issued by an authorised external workshop for each consignment intended for shipment (cf. warranty for tested replacement parts).

Indicators of waste status for vehicle replacement parts:

- The components exhibit oil leakage and/or are contaminated with oil (scattering or spreading oil binding agents in the transport vehicle shall not under any circumstance substitute for the required cleaning of used vehicle replacement parts!);
- The components are severely corroded or exhibit physical damage (e.g. bent, dented doors, components with cut cables and hoses, porous and unusable hoses, parts that have been cut out) affecting functionality or safety as specified in applicable standards;
- There is no specific catalogue¹² of replacement parts in a loading list;
- The replacement parts do not have any packaging or specific precautions to protect against damage during transport, loading and unloading. Parts transported as bulk freight shall also count as waste unless new products of the same kind are also being transported (e.g. screws);
- It is clear that the used vehicle parts or components are not suitable for reuse;
- The components or vehicle parts are intended for disposal or recovery (e.g. scrapping, landfilling, etc.), not for reuse.

Used components/replacement parts:

Criteria for classification as used components/replacement parts

The parts must be undamaged and functional and reused for their original intended use.

- A transport list¹² indicates the make and type as well as the price;
- The replacement parts are neither corroded nor incomplete nor exhibit any (serious) physical damage;
- The parts are identified (e.g. labelled) so each part can be assigned to an entry in the transport list¹²;
- The parts are stacked, packaged or tied (secured) during transport so they cannot be damaged. In principle, the replacement parts or components must be packaged individually, although small parts (e.g. shock absorbers) can be packaged together. Small parts packaged together do not have to be entered individually on the transport list;
- Replacement parts or components that contain fluids must be drained in advance or sealed to prevent leakage. It is not adequate merely to line the transport container with sawdust to absorb leaking fluids;
- For used engines and gearboxes as well as other electrical/electronic components from vehicles and for used vehicle batteries, written evidence of functionality from a licensed workshop must be presented for each individual component, including a list of the marks, types and serial numbers. For vehicle batteries (requirement: minimum charge capacity 40% of nominal capacity), the test must include at least the following: Chargeability (charge current at limited overvoltage over the nominal voltage of 12 V), short-circuit current, self-discharge over 48 hours and the batteries must be fitted with a clear identification attributable to the test report.

The report shall detail the test procedure and must always include contact details for the workshop.

NB: If the load includes components contaminated with oil or other environmentally hazardous substances being transported with other parts, the entire load shall be assumed to be waste.

¹² The absence of a transport list (loading list) does not automatically entail that the entire load is waste

Details on determining the waste status of used tyres can be found under entry B3140.

In cases of doubt regarding the waste/non-waste status of end-of-life vehicles, vehicles damaged in an accident or motor vehicle components, a request to conduct an assessment procedure as per Article 6 of the Waste Management Act 2002, as amended, may be submitted to the district administrative authority.



Figure 8: Engines and axles in bulk – hazardous waste

Figure 9: Non-de-oiled engines in bulk – hazardous waste

9.2.3. THE NOTIFICATION PROCEDURE

Written notification shall be carried out exclusively using the notification document as per Annex IA and the movement document as per Annex IB of the EC Waste Shipment Regulation.

Documents on submission of notification requests are available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

Annex IC to the EC Waste Shipment Regulation gives specific instructions for completing the notification and movement documents.

Moreover, it is also possible to submit notifications in advance (the forms and the bank guarantee must always be submitted in hard copy) and **reports** in the sense of Articles 15 and/or 16 of the EC Waste Shipment Regulation in **electronic form** to the Federal Ministry of Agriculture, Forestry, Environment, and Water Management (BMLFUW) using the "**eShipment**" application.

The Federal Ministry of Agriculture, Forestry, Environment and Water Management website provides additional information on electronic data management.

Annex IC to the EC Waste Shipment Regulation gives specific instructions for completing the notification and movement documents (see www.edm.gv.at – Informational/ Downloads)

Accompanying documents

Each shipment of waste must be accompanied by the movement document as well as copies of the notification document and the written approvals of the responsible authorities in question; all approvals by shipping and receiving authorities within the EU must be granted in writing, whereas transit countries within the EU may however use the option of tacit consent.

It should be noted that certain EU Member States require shipments to be accompanied by certified transport documents (e.g. Slovakia, Italy).

For transit through Austria the Federal Ministry of Agriculture, Forestry, Environment and Water Management mostly grants tacit consent (exception: involvement of third countries; shipments to pre-authorised facilities).

9.2.3.1. WASTE FOR DISPOSAL

In cases of shipment for a disposal operation (D operation), all waste is subject to a notification and consent requirement with respect to the competent environmental authorities (exceptions, see Chapter 9.2.4.1. - Annex III Green Waste List: Shipments of limited quantities of waste for laboratory analysis).

- It is prohibited to export any waste out of the EU for disposal except to EFTA countries (list of EFTA countries: Iceland, Liechtenstein, Norway, Switzerland).
- Importing of waste into the EU for disposal is only permitted from countries that are parties to the Basel Convention or with which corresponding agreements exist or
- are involved in crises or war situations, such as in the case of peacemaking or peacekeeping measures (not subject to notification requirements but subject to reporting requirements).

Transboundary shipment of waste for disposal in/between EU Member States as well as its export into EFTA countries is subject to the procedure for written notification and consent (exemption from notification requirement: only in crisis or war situations, in cases of peacemaking or peacekeeping measures in the cases referred to above).

9.2.3.2. WASTE OF RECOVERY

The **NOTIFICATION REQUIREMENT** applies for the following waste types:

A. ANNEXES IV AND IVA (AMBER WASTE LIST)¹³

In cases of transboundary shipment of waste for recovery, the following waste types are subject to the procedure for prior written notification and consent:

Amber Waste List – Annex IV of the EC Waste Shipment Regulation: Waste listed in Appendixes II and VIII to the Basel Convention (Part I of Annex IV to the EC Waste Shipment Regulation) and waste listed additionally in the OECD Council Decision (Part II of Annex IV to the EC Waste Shipment Regulation). Annex II to the Basel Convention contains the following entries:

- Y46 Waste collected from households, unless appropriately classified under a single entry, and
- Y47 Residues arising from the incineration of household waste.

For the purposes of the EC Waste Shipment Regulation the following shall apply:

- Any reference to List B in Appendix VIII to the Basel Convention must be understood as a reference to Annex III to the EC Waste Shipment Regulation.
- In Basel Convention entry A1010, the phrase "excluding such waste specifically listed in List B (Appendix IX)" is a reference both to Basel Convention entry B1020 and the note on entry B1020 in Annex III, Part I(b) to this Regulation.
- Basel Convention entries A1180 and A2060 are not mentioned in Annex IV to the EC Waste Shipment Regulation (because they are not contained in the OECD Council Decision), but must be entered as Basel codes on the notification and movement documents (cf. also Correspondents' Guidelines No 4 for classification of hazardous electrical and electronic waste and fly ash from coal-fired power plants with hazardous properties).
- Basel Convention entry A4050 includes spent pot linings from aluminium smelting because they contain inorganic cyanides (Y33). If the cyanides have been destroyed, spent pot linings are assigned to entry AB120 in Part II because they contain inorganic fluorine compounds excluding calcium fluoride (Y32).

¹³ except import of waste generated in crisis or war situations, as part of peacemaking or peacekeeping operations

The import of Amber List waste into the EU for disposal is only permitted from countries,

- to which the OECD Decision applies, or
- which are Parties to the Basel Convention, or
- with which corresponding agreements exist, or
- during crisis or war situations, such as in the case of peacemaking or peacekeeping measures.

With respect to the transboundary shipment of waste, waste mentioned in Annexes IV and IVA to the EC Waste Shipment Regulation must always be subject to the written notification and consent procedure, unless the export of such waste to countries to which the OECD Decision does not apply is prohibited anyway (see Chapter 9.2.5. – Export prohibition).

Note on Annex IVA

This is a list of waste mentioned in Annex III to the EC Waste Shipment Regulation that is also subject to the procedure for prior written notification and consent. Annex IVA is currently blank.

B. UNLISTED WASTE – NOTIFICATION REQUIREMENT

The lists do not constitute a comprehensive system for all possible types of waste. Waste not mentioned in the above Annexes is still subject to the written notification and consent procedure unless the export of such waste to countries to which the OECD Decision does not apply is already prohibited due to its hazardous properties.

C. MIXTURES OF WASTE TYPES IN ANNEX III

Shipment of mixtures of waste types on the Green List is subject to the notification requirement unless these mixtures are explicitly indicated in Annexes III, IIIA or IIIB.

D. MIXTURES OF GREEN LIST WASTE AND OTHER WASTE

With respect to the transboundary shipment of waste, these waste mixtures always require written notification and consent, unless an export ban applies.

E. SHIPMENT OF WASTE FROM ANNEXES III/IIIA INTO NON-OECD COUNTRIES

To determine the desired waste control procedure, please refer to Commission Regulation No 1418/2007, as amended, concerning the export of certain wastes listed in Annex III or IIIA into certain non-OECD countries and/or the country list of the Environment Agency in Dessau on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

Certain non-OECD countries have also imposed an import prohibition; certain entries in Annex IIIA must not be shipped into non-OECD countries – see also the explanatory notes in consolidated Annex IIIA in Chapter 9.2.10.2.

F. SHIPMENT OF WASTE FROM ANNEX IIIB INTO OECD AND NON-OECD COUNTRIES

Waste types from Annex IIIB only apply as "additional green-listed waste" in cases of shipment for the purposes of recovery within the EU Member States.

A notification and consent obligation applies for shipment into non-OECD countries.

9.2.3.3. INTERIM RECOVERY/DISPOSAL

This relates to shipments for interim recovery operations R12 (exchange of waste – including preliminary operations before the actual recovery process) or R13 (interim storage) prior to the completed recovery operation and/or for interim disposal operations D13 (blending or mixing – including preliminary operations before the actual recovery process), D14 (repackaging) or D15 (interim storage) prior to the application of a completed disposal operation.

For the issue of recovery or disposal certificates, please refer to EU Correspondents' Guidelines No 3, available on the [website of the European Commission](#).

The certificate for the following non-interim recovery or disposal as per Article 15(e) of the EC Waste Shipment Regulation is available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

9.2.3.4. WASTE COLLECTION BY COLLECTORS FROM OTHER COUNTRIES

If waste is picked up or collected in Austrian territory by a collector belonging to another EU Member State, it shall always be verified that this collector also has the required Austrian or equivalent foreign authorisation for waste collection and – in cases of waste requiring notification – that this party has a valid permit on the basis of a notification procedure for the transboundary shipment of waste. The assessment of whether an authorisation is equivalent falls to the governor of the province where the waste is initially collected (report to this provincial governor).

One precondition for classification as an "equivalent permit" within the meaning of Section 24a(2)(3) of the Waste Management Act 2002 is that the foreign legislation provides for the presence of technical qualifications, the reliability of the waste collector or processor, and the protection of the public interest by the collection or treatment type.

9.2.4. WASTE NOT SUBJECT TO NOTIFICATION – REQUIREMENTS AS PER ARTICLE 18

A person arranging transboundary shipment of waste not subject to the notification requirement shall always verify that the waste consignee holds the required permits (especially waste collector or processor permits and permits as per regulations on facilities) in the country of destination, because the waste shipment would otherwise be illegal.

9.2.4.1. ANNEX III – GREEN WASTE LIST

Waste listed in Appendix IX to the Basel Convention (same as Part I of Annex III to the EC Waste Shipment Regulation) and waste additionally listed in the OECD Council Decision (same as Part II of Annex III to the EC Waste Shipment Regulation) are both subject to the general information requirements as per Article 18 of the the EC Waste Shipment Regulation.

For the purposes of the EC Waste Shipment Regulation the following shall apply:

- Any reference to List A in Appendix IX to the Basel Convention must be understood as a reference to Annex IV to the EC Waste Shipment Regulation.
- In Basel Convention entry B1020, the phrase "bulk finished form" includes all metallic non-dispersible forms of the scrap listed there (for definitions of "non-dispersible" and "bulk form", see Chapter 9.2.6.4.).
- The part of Basel Convention entry B1100 that refers to "slags from copper processing", etc., does not apply; OECD entry GB040 in Part II applies instead.
- Basel Convention entry B1110 does not apply; OECD entries GC010 and GC020 in Part II apply instead.
- Basel Convention entry B2050 does not apply; OECD entry GC040 in Part II applies instead.
- The reference in Basel Convention entry B3010 to fluorinated polymer wastes shall be deemed to include polymers and copolymers of fluorinated ethylene (PTFE).

In the following cases, the transboundary shipment of waste under Annex III for recovery is not subject to written notification and consent:

- Shipment from all countries within/between EU Member States;
- Exporting into countries for which the OECD Council Decision C(2001)107/FINAL concerning the Control of Transboundary Movements of Wastes Destined for Recovery Operations (OECD Decision) applies;
- Exporting into countries for which the OECD Council Decision C(2001)107/FINAL concerning the Control of Transboundary Movements of Wastes Destined for Recovery Operations does not apply (i.e. non-OECD states), but which have stipulated that shipments are permitted without notification for all or specific wastes listed in Annex III or IIIA in accordance with Article 37 of the EC Waste Shipment Regulation.

The desired control procedure is indicated on the country list of the [Environment Agency in Dessau](#).

Waste not requiring notification – accompanying documents

With respect to the transboundary shipments of waste that does not require notification, the documents defined in Article 18 of the EC Waste Shipment Regulation (form in accordance with Annex VII of the EC Waste Shipment Regulation) must accompany the shipment if the amount of shipped waste exceeds 20 kg. Prior to the shipment, a written contract for recovery must have been concluded in accordance with Article 18.

Some countries apply differing interpretations on the classification of waste types in the Green List (national reference and limit values for contaminants, lack of harmonisation of all hazard characteristics in the EU, etc.). Therefore, it is recommended in all cases to check the status of the waste being shipped in the country of destination as well, even in the case of an Austrian declaratory decree (Article 28 of the EC Waste Shipment Regulation – Precedence of the stricter classification).

Contract as per Article 18(2) of the EC Waste Shipment Regulation

A written contract for recovery between the person arranging the shipment and the consignee must be effective when the shipment starts and, if the waste shipment or recovery cannot be completed as intended or if it has been done illegally, it must include an obligation on the person arranging the shipment or, if this person is not capable of completing the waste shipment or recovery (e.g. due to insolvency), on the consignee

- a. to take back the waste or ensure its recovery in an alternative way, and
- b. provide, if necessary, for its storage in the meantime.

The person who arranges the shipment or the consignee must provide a copy of the contract at the request of the relevant competent authority (the Federal Ministry of Agriculture, Forestry, Environment and Water Management) or control bodies such as customs and police.

Sample agreement texts are available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

It is also recommended to further detail the waste type in the agreement, in addition to the waste code to be indicated (e.g. indication of quality criteria or concentration limits) as well as the recovery operation by specifying the R operation or by verbal description of the process.

It should be noted that as per Section 15(Sa) of the Waste Management Act 2002 the waste holder is responsible for

- transfer of the waste to a waste collector or processor authorised to collect or handle the waste type in question, and
- explicitly requesting environmentally sound recovery or disposal of this waste.

Annex VII Form – disclosure of the waste producer

As per the ECJ Decision of 29 March 2012 (Case C – 1/11 - Interseroh Scrap and Metals Trading GmbH), in cases of shipment of waste types on the "Green List" (Annex III to the EC Waste Shipment Regulation), intermediary dealers are required to disclose the waste producer to the consignee of a delivery. The document as per Annex VII to the EC Waste Shipment Regulation must be filled in, including block 6, and provided to the consignee, and the scope of this obligation shall not be restricted by any right to protection of trade secrets.

Hazardous waste on the Green Waste List

With respect to the shipment of hazardous waste within the meaning of the List of Waste Ordinance, which is specifically mentioned in the Green List, the Annex VII form (to the EC Waste Shipment Regulation), numbered accordingly, is recognised as the national consignment note for hazardous waste in accordance with the Waste Record-Keeping Ordinance (see Section 18(2a) of the Waste Management Act 2002).

Furthermore, the Austrian consignee of waste must report the receipt of hazardous waste to the provincial governor in accordance with Section 18(3) of the Waste Management Act 2002.

The document contained in Annex VII must be signed by the person who arranges the shipment before it takes place and must be signed by the recovery facility or the laboratory and the consignee when the waste in question is received.

Shipment of waste on the Green List that is not subject to the notification requirement, for interim recovery operations (R12, R13)

To determine whether a shipment of waste subject to the general information requirements as per Article 18 is intended for **environmentally sound recovery** in the sense of Article 49 of the EC Waste Shipment Regulation, the authorities involved in the checks may require the person arranging the shipment to **submit the relevant written evidence** provided by the interim recovery facility (operation R12, R13) and the non-interim recovery facility and, if necessary, approved by the competent authority at the destination (see Article 4(c) of Regulation (EU) No 660/2014 amending the EC Waste Shipment Regulation).

With respect to the classification of waste on the Green List within the framework of the declaratory decree by the district administrative authorities, an examination of the subsequent final recovery operation following the interim operation must be carried out in order to ensure the shipment is not destined for a subsequent final disposal operation, as all shipments of waste destined for disposal are subject to notification and consent requirements.

Notification requirement for waste from Annexes III/IIIA in specific cases

Waste from Annexes III and IIIA is only subject to the procedure for written notification and consent for transboundary waste shipment for recovery to a country not subject to OECD Decision C(2001)107/FINAL and that also would like to apply a control procedure for the import of waste of this kind or that has not issued any declaration to the EU.

For the control procedure for the export of waste from Annexes III and IIIA for recovery in non-OECD countries, please refer to Commission Regulation No 1418/2007, as amended, or the country list of the Environment Agency in Dessau.

Shipments for laboratory analysis

The obligation to have documents accompanying shipments in accordance with Article 18 of the EC Waste Shipment Regulation also applies for the shipment of hazardous and non-hazardous waste up to an amount of 25 kg which is destined for laboratory analysis (Article 3(4) of the EC Waste Shipment Regulation).

A disposal operation (e.g. incineration test D10 or physico-chemical treatment in the sense of D9) may only be indicated in the Annex VII form in the event of laboratory tests. A contract as per Article 18(2) of the EC Waste Shipment Regulation is not required for shipments of waste for laboratory analysis in the sense of Article 3(4) of the EC Waste Shipment Regulation.

NB: no special provisions exist for shipment of waste for pilot trials or for testing of facilities; in these cases, the general provisions of the EC Waste Shipment Regulation apply (according to the waste type: notification requirement or general information requirements as per Article 18 of the EC Waste Shipment Regulation; possibly an export ban on hazardous waste to non-OECD countries).

9.2.4.2. ANNEX IIIA – DEFINED MIXTURES OF GREEN LIST WASTE

Mixtures of specific Green List waste types that are not subject to any notification procedures in the event of trans-boundary shipments of waste for recovery within the EU or to OECD member countries (unless deviations from the OECD Council Decision apply) are explicitly defined in ANNEX IIIA. All mixtures not mentioned in Annex IIIA always require notification.

9.2.4.3. ANNEX IIIB – ADDITIONAL GREEN LIST WASTE FOR RECOVERY WITHIN THE EU

Annex IIIB lists waste that is only exempt from the written notification and consent procedures in the case of the transboundary shipment of waste for recovery between EU Member States.

9.2.5. BAN ON EXPORTS TO NON-OECD COUNTRIES

It is prohibited to export the following waste, for recovery, out of the EU and into countries not subject to the OECD Decision:

- hazardous waste listed in Annex V to the EC Waste Shipment Regulation
- waste listed in Part 3 of Annex V (Basel Annex II: Y46 waste collected from households and Y47 residues arising from the incineration of household waste as well as certain entries from the earlier OECD Decision)
- hazardous waste not classified under an individual entry in Annex V
- mixed hazardous waste and mixtures of hazardous and non-hazardous waste that are not classified under an individual entry in Annex V
- waste that the country of destination has notified as hazardous under Article 3 of the Basel Convention
- waste for which the country of destination has imposed a ban on imports
- waste which the competent authority of dispatch has reason to believe will not be managed in an environmentally sound manner in the country of destination in question.

9.2.5.1. EXPLANATORY NOTES TO ANNEX V

Ban on exports to non-OECD countries:

Annex V consists of three parts, where Part 2 only applies when Part 1 does not.

First, it is necessary to check whether the waste destined for export is listed in Part 1 of Annex V. If it appears in List A of Part 1 of Annex V, then it is generally subject to a ban on exports (see the "Opt-out" clause below regarding this).

If the waste appears in List B of Part 1, its export is permitted in principle, provided it does not exhibit any hazardous properties (see the "Opt-in" clause below regarding this).

If waste is not listed in Part 1, it is necessary to check whether it is listed as hazardous waste (= waste types followed by a *) in Part 2 (European List of Waste). If so, it is generally subject to an export ban (see the "Opt-out" clause below regarding this). If the waste is hazardous waste according to the Austrian List of Waste Ordinance (e.g. nickel-metal hydride or lithium batteries), then its export is prohibited.

It is always necessary to check whether the waste is indicated in Part 3 of Annex V.

The export of waste listed in Part 3 is prohibited without exception according to Article 36(1) of the EC Waste Shipment Regulation (e.g. municipal waste or treated wood waste that is not hazardous).

Opt-in clause

In certain exceptional cases, the fact that a waste type is not listed as hazardous waste in either Part 1 or 2 of Annex V or that it is listed in Part 1, List B of Annex V does not prevent its classification as hazardous waste, so it will fall under the export ban if it exhibits an EU hazard characteristic, where the EU limit values as per Regulation (EU) No 1357/2014 replacing Annex III of Waste Directive 2008/98/EC and the provisions of Commission Decision 2014/955/EU amending Decision 2000/532/EC on the list of waste and Council Regulation (EU) 2017/997 amending Annex III to Directive 2008/98/EC as regards the hazardous property HP14 “Exotoxic” must be taken into account with regard to properties HP3 to HP8, HP10, HP11, HP13 and HP14. Recognised testing methods shall be applied to test for hazard characteristics HP1, HP2, HP14 and HP15.

Hazard characteristics HP9 (infectious) and HP12 (waste which releases toxic gases in contact with water or acid) have not yet been harmonised at the EU level, national regulations apply. As regards HP 14 (ecotoxic), calculation formulae were introduced at EU level for the assessment of substances toxic to the aquatic environment in the case of waste of known composition. For the assessment of waste of unknown composition, member states will lay down national testing procedures (biotests), as, at EU level, no harmonised testing procedures have been set out so far. Moreover, with HP15 (development of hazardous properties that the original waste does not feature directly), member states may adopt additional national requirements such as on leachate behaviour and total pollutant content.

Example: Vanadium pentoxide catalysts (without additional hazardous contaminants from the process) constitute hazardous waste because of their material properties (note: in the list of substances under chemical regulations, vanadium pentoxide is classified as toxic to reproduction, Category 2 (H361d), and mutagenic Category 2 (H341), etc.). These vanadium pentoxide catalysts must be regarded as Green List waste for shipments within the EU Member States (code: B1120) because the Green Waste List also includes waste whose recovery does not pose any risk, but which nevertheless may (in certain cases) exhibit hazardous properties (any stricter deviating interpretations in specific member states shall always take precedence – Article 28 of the EC Waste Shipment Regulation).

Exporting waste of this kind to third countries, to which the OECD Council Decision does not apply is still prohibited because the waste exhibits a hazard characteristic in accordance with EU legislation.

In the aforementioned cases, the relevant member state must inform the intended country of destination prior to its decision.

Opt-out clause

In exceptional cases, and on the basis of substantiating documents to be properly submitted by the notifier, EU Member States may decide that certain hazardous waste listed in Annex V, Part 1 or 2, should be exempted from the ban on exports if it does not exhibit any hazard characteristics. In the case of properties HP3 to HP8, HP10, HP11, HP13 and HP14 the EU limit values shall apply. Recognised testing methods shall be applied to test for hazard characteristics HP1, HP2, HP14 and HP15.

Hazard characteristics HP9 (infectious) and HP12 (waste which releases toxic gases in contact with water or acid) have not yet been harmonised at the EU level, national regulations apply. As regards HP 14 (ecotoxic), calculation formulae were introduced at EU level for the assessment of substances toxic to the aquatic environment in the case of waste of known composition. For the assessment of waste of unknown composition, member states will lay down national testing procedures (biotests), as, at EU level, no harmonised testing procedures have been set out so far. Moreover, with HP15 (development of hazardous properties that the original waste does not feature directly), member states may adopt additional national requirements such as on leachate behaviour and total pollutant content. Article 28 of the EC Waste Shipment Regulation (precedence of the stricter classification) shall always be taken into account for transboundary shipment.

In the aforementioned cases, the relevant member state must inform the intended country of destination prior to its decision; any shipment will still however require written notification and consent.

9.2.5.2. HAZARD CHARACTERISTICS IN THE BASEL CONVENTION, THE OECD AND THE EUROPEAN UNION

The hazard characteristics of the Basel Convention and OECD are mainly defined by the UN classification criteria for the transport of dangerous goods.

In contrast, the EU hazard characteristics are primarily based on classifications under chemical regulations (GHS system or CLP Regulation No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures). However, for the classification of waste certain waste-specific limit values have been established in Regulation (EU) No 1357/2014 replacing Annex III to Directive 208/98/EC on waste, which deviate in part from the classification under chemical regulations.

Certain hazard characteristics, such as HP9 (infectious) or HP12 (release of acute toxic gases in contact with water or an acid) have not yet been harmonised at an international level at this time. Their classification is based on national regulations. Similarly, the classification for HP14 (ecotoxic) can differ due to biotesting procedures that are different in individual states.

As a result, the various classifications of waste may differ from one member state to the next. In such cases, the stricter control procedure must always be applied as per Article 28 of the EC Waste Shipment Regulation.

The waste list in the Basel Convention is based on substance-specific properties; only the hazardous constituents mentioned in Annex I of the Basel Convention are taken into account. However, Annex I of the Basel Convention (categories of waste to be controlled or waste containing certain constituents) does not reflect the latest technical and scientific findings.

Annexes VIII and IX to the Basel Convention are based on the list in the original OECD Council Decision C(92)39 (three-tiered list system of waste destined for recovery); in any case, in the aforementioned OECD Decision, the waste is listed according to its risk, not only according to its substance-specific properties. The evaluation took into account criteria such as the risk of possible contamination of the waste with hazardous substances, the risk of dissipation of the waste in the environment in the event of an accident, and the risk of potentially environmentally unsound treatment in industrialised OECD countries.

In 2001, OECD Council Decision C(2001)107/FINAL harmonised the OECD lists with Lists A and B (Annexes VIII and IX) of the Basel Convention, but retained additional entries from prior OECD Decision C(92)39. The EC Waste Shipment Regulation adopted the two-list system with interim adaptations of Basel Annexes VIII and IX.

9.2.6. GREEN WASTE LIST – CLASSIFICATION CRITERIA

Subsequently, authoritative criteria for the assignment of waste to the Green List (list of waste subject to the general disclosure requirements in accordance with Article 18 of the EC Waste Shipment Regulation).

9.2.6.1. BASIC PRINCIPLES

Regardless of whether or not waste is included in the Green List, it may not be classified as Green List waste if it is contaminated by other materials to an extent which

- sufficiently increases the risks associated with the waste to render them appropriate for submission to the procedure of written notification and consent when taking into account the EU hazard characteristics, or
- prevents the environmentally sound recovery of waste.

The entries of the EC Waste Shipment Regulation annexes should not be considered in isolation for the purposes of interpretation, but rather should be viewed as integral parts of a waste classification system. The entries in Annex III of the EC Waste Shipment Regulation refer to mirror entries in Annex IV of the EC Waste Shipment Regulation, and vice versa.

When classifying a type of waste, it should be classified in accordance with its description and origin whilst taking into account the most appropriate entry in any of the lists, taking into account specific contaminants or ingredients.

NB: Certain green-list entries make reference to standards. The standards are given by way of example and the list is by no means exhaustive.

9.2.6.2. CONTAMINATED SITE CONTRIBUTION

Reference is made to the existing obligation to pay the contaminated site contribution (=ALSAG contribution), including for transboundary shipments of Green List waste (Annexes III, IIIA, IIIB), and also examples such as for energy recovery, the production of waste fuels and fuel products, or for waste fractions supplied for backfilling.

Transboundary shipments of waste for permanent deposit (on land or underground), that are subject to notification requirements are also subject to the ALSAG obligation. For details on and exceptions from the ALSAG obligation, see Section 3 of the Act on the Remediation of Contaminated Sites (the "ALSAG").

9.2.6.3. SHIPMENT OF WASTE FOR REGENERATION

Used catalysts, activated carbons, acids, alkalines, solvents, used oils, which are intended for regeneration shall always constitute waste and are subject to the requirements of the EC Waste Shipment Regulation in the case of transboundary shipments of waste (see corresponding entries on the Amber Waste List; where applicable, green-list entries shall also apply).

9.2.6.4. NON-DISPERSIBLE AND BULK FORM

Certain waste types are only permitted in non-dispersible form.

Waste in the form of powder, sludge, dust, or solid objects containing or enclosing hazardous waste in liquid form (e.g. batteries, partly filled drums) must not under any circumstances be considered as non-dispersible waste.

In Austria, a particle size of over 100 micrometers applies as a reference value to be regarded as non-dispersible.

Note: This reference value of 100 micrometers is based on a 1994 study commissioned by the OECD entitled: "A Criterion for Non-Dispersibility of Metal and Metal Containing Material in Waste Classification". This study concludes that if no more than 0.1% is composed of particles small enough to be blown away by the wind (particle size under 100 micrometers), there is little risk of exceeding the acceptable levels of atmospheric concentration for most toxic metals.

It is important to remember that certain metal oxides or other metal compounds (= disperse or dispersible fractions) should be considered toxic even in small quantities (for carcinogenic nickel oxides, beryllium oxides, and cadmium oxides and compounds, the limit value is 0.1%; for lead compounds toxic for reproduction, the limit value is 0.3%); moreover, the limit values stipulated in the List of Waste Ordinance, as amended, shall not be exceeded under any circumstances if the waste will be assigned to the Green List.

As a result, the permissible dispersible proportion of waste (scrap) varies and depends on the toxicity of the metal compounds. In the case of iron or aluminium scrap, higher proportions of iron oxide (rust) or aluminium oxide are permitted (see also the classification of iron scaling and aluminium oxides/aluminium skimmings on the Green Waste List).

For limits values for disperse portions, see Chapter 9.3.

There is still no EU- wide standard interpretation of the terms "disperse" or "dispersible", so the interpretation by individual member states may have different, sometimes contradictory, results. Individual member states also regard waste as disperse if it can pass through a 1mm sieve. This approach is also used e.g. in EU Member States Finland and Bulgaria.

The indication "non-dispersible" (reference value: particle diameter of over 100 micrometers) in the context of transboundary shipments and the indication "bulk form" are not synonyms!

Bulk form ("masive form")

For certain entries in Annex III to the EC Waste Shipment Regulation (Green Waste List), metal alloys must occur in bulk form (see B1020).

Following the Guidance Documents on the CLP Regulation on chemicals, governing the classification, labelling and packaging of substances and mixtures, the term "bulk form" ("masive form") for metal alloys was defined in Austria as a particle size of over 1 mm.

The hazardous characteristics of individual elements in metal alloys (except for mercury) are not relevant to the hazard classification if occurring in "massive form" (see Commission Decision 2014/955/EU amending Decision 2000/532/EC on the list of waste in the context of Regulation (EU) No 1357/2014 replacing Annex III to Directive 2008/98/EC).

Examples:

- Metallic nickel powder in a particle size of over 1 mm is bulk metal waste ("massive form"). The concentration limits defined in the hazard properties (HP), do not apply to bulk metal alloys (non-hazardous waste) – Green List waste: entry B1010 because "non-dispersible" is required (= 100 micrometers in AT).
- Metallic nickel powder in a particle size of over 100 micrometers and up to 1 mm is not dispersible, but not bulk (massive) either. The hazard properties (HP) do apply (hazardous waste), but it is nevertheless Green List waste in cases of shipments WITHIN the EU/OECD because listing is based on risk approach. However an EXPORT BAN applies to exports into non-OECD countries because the waste is hazardous.
- Nickel powder with a particle size of less than 100 micrometers is dispersible waste (not included under entry B1010) and therefore, as unlisted hazardous waste, is subject to notification requirements.
- Metallic lead powder in a particle size of over 100 micrometers and up to 1 mm is waste subject to notification requirements because entry B1020 explicitly states that lead must occur in "bulk" form, according to the Austrian interpretation: must occur in particle sizes of over 1 mm.
- For metallic lead powder with a particle size of over 1 mm, the hazard characteristics do not apply (not hazardous waste) – Green List waste: entry B1020.

At this time, in the absence of a harmonised definition, differing interpretations of the terms "bulk form" ("massive form") or "non-dispersible" occur within the European Union.

9.2.6.5. RELEVANCE OF POLLUTANT CONTENT TO CLASSIFICATION

A. LIMIT VALUES AND REFERENCE VALUES

In principle, the limit values of the List of Waste Ordinance apply in cases of contamination of Green List waste. Any new binding limit values adopted at EU level or in Austria shall be applied. Waste must not be classified into the Green List (procedure as per Article 18), if, due to the contamination by other materials

- the risks in connection with the waste are increased to such an extent that, when considering the hazardous properties, the application of the procedure of written notification and consent seems appropriate,
- or the environmentally sound recovery of the waste is prevented.

If the associated limit values are exceeded (in accordance with Appendix 3 to the Austrian List of Waste Ordinance), the waste shall be assumed to be hazardous, and not classifiable under the Green List, unless specifically stipulated otherwise in the explanatory notes on certain items on the Green List (cf. catalysts).

B. RECOVERY RESTRICTIONS BASED ON POLLUTANT LIMITATIONS AT THE EU LEVEL

For classification of waste on the Green List, recovery restrictions for waste with certain pollutant content levels defined at the EU level shall always be taken into account (cf. in particular the POP Regulation or regulations prohibiting certain phthalates). Environmentally sound recovery can only be assumed if these pollutant content levels are met, even if pursuant to national legislation in the importing country (non-EU Member States), higher pollutant content levels are accepted and the waste is assigned to the Green List procedure there.

As a result, a notification requirement applies if pollutant content levels (recovery restrictions at the EU level) are exceeded, even if this does not always trigger a hazard criterion.

C. PERCENTAGE BY MASS

The percentages of contaminants or permissible components (limit values or, in certain cases, reference values) indicated for green-list entries (or references to the Amber Waste List) should be understood as the percentage by mass.

D. PRECEDENCE OF THE STRICTER CLASSIFICATION

If more stringent limit/reference values or criteria are applicable in the importing or exporting country for classification of waste on the Green List than in Austria, the more stringent criteria shall always prevail, given that the more stringent procedure (notification) must prevail in accordance with Article 28 of the EC Waste Shipment Regulation in the event of differing classifications.

E. SHIPMENT OF WASTE FOR ENERGY RECOVERY

Waste on the Green List intended for energy recovery (waste fuel, main application as fuel or other means of energy generation) must also meet the criteria for waste fuels as per the Waste Incineration Ordinance (and/or RAL quality marks for secondary fuels, which are deemed equivalent) in order to assume permissible energy recovery in the sense of R1.

Shipment of green listed waste to incineration plants used for the treatment of municipal solid waste shall only fall under recovery operation R1 if the energy efficiency reaches the following minimum values:

- 0.60 for plants in operation that were approved prior to 1 January 2009 in accordance with the applicable EU law,
- 0.65 for plants that were approved after 31 December 2008.

All other cases are for disposal (consequence: notification procedure).

F. DECONTAMINATION

Especially with respect to electronic scrap, end-of-life vehicles and end-of-life ships, particular attention must be paid to the fact that it is generally necessary to prove that all hazardous substances have been removed (e.g. removal of hazardous components from printed circuit boards, removal of hazardous liquids such as oil, petrol, batteries from end-of-life vehicles, removal of asbestos from end-of-life ships) in order to classify the waste on the Green List (Annex III). For more details, see the descriptions for these entries.

Baled scrap cars without any proof of removal of hazardous substances do not qualify as Green List waste because they contain a high percentage of contaminants and extraneous matter other than steel which impairs the recovery operation and increases environmental pollution during recovery (unlisted waste, subject to the written notification and consent procedure).

G. POLYCHLORINATED BIPHENYLS/POLYCHLORINATED TERPHENYLS

Waste, substances, and objects that contain, consist of, or are contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs), including all analogous compounds, and that exhibit a concentration greater than 30 mg/kg (see Section 16(2) of the Waste Management Act 2002) shall be classified as waste subject to notification requirements (e.g. contaminated non-ferrous metal heavy shredder fractions).

This definition as per Article 2(a) of the PCB Directive 96/59/EC applies: Sum of PCB congeners (PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180) and polychlorinated terphenyls (PCTs), Monomethyl-tetrachloro-diphenyl methane, Monomethyl-dichlorodiphenyl methane, Monomethyl-dibromo-diphenyl methane.

Note on PCB/PCT analysis: When shipping PCB/PCT-contaminated or PCB/PCT-containing waste, it is necessary to follow the guidelines in the relevant EU regulations as well as national specifications concerning PCB analysis and PCB limit values laid down in the country of destination. In certain countries, the total PCB content is estimated from the concentration of seven main PCB substances and then multiplied by a factor of five! In any case, please refer to Article 28 of the EC Waste Shipment Regulation!

H. BROMINATED FLAME RETARDANTS

Regulation (EU) No 1342/2014 has amended Annexes IV and V to Regulation (EC) No 850/2004 on persistent organic pollutants (EU POP Regulation).

Polybrominated diphenyl ethers and biphenyls

For the four congeners of polybrominated diphenyl ethers (tetra, penta, hexa and heptaBDE), Annex IV sets a total limit value of 1,000 mg/kg by dry mass (0.1%) for their destruction or irreversible transformation.

Waste that exceeds this limit value is always subject to notification and consent requirements in cases of transboundary shipment.

Since 1 July 2006, the ROHS Directive (Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment, as amended) has excluded the use of the polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) flame retardant groups in electrical and electronic equipment in concentrations exceeding 0.1% for the sum of all PBDEs (MonoBDE to DecaBDE – see analysis standard EN 62321) and PBB.

Recycling of waste, especially plastics with prohibited brominated flame retardants, is generally excluded if the pollutant limit values as per Annex IV to the EU POP Regulation are exceeded.

Because the identification of PBDE congeners using gas chromatography with mass spectrometry (GC/MS) is very expensive, the bromine content of plastics in the electrical/electronics sector is typically determined using X-ray fluorescence (XRF).

As per Technical Specification EN CLC/TS 50625-3-1 pertaining to Cenelec standard EN 50625-1, at a level of **less than 2,000 mg of bromine/kg** in plastics from the electrical/electronics sector, it is assumed that the content of the currently banned PBDEs (= POPs) is not exceeded. For DecaBDE, currently no waste legislation limit value was given in Annex IV to the POP Regulation for destruction or irreversible transformation. If a bromine level of 2,000 mg/kg is demonstrably not exceeded in the case of plastic waste, classification as Green List waste is permitted (any stricter regulations in the country of destination shall always prevail – Article 28 of the EC Waste Shipment Regulation). As, however, there may absolutely be relevant contents of DecaBDE, it shall be excluded by way of contract that a recovery in the area of electronics takes place (cf. provisions of the ROHS Directive/of the WEEE Directive). Furthermore, it shall be contractually guaranteed that plastic waste of this kind is only used in a form that is admissible according to Annex XVII to Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH), as amended. According to the Waste Treatment Obligations Ordinance, the use of flame retardants must be technically necessary. If the total bromium limit value of 2,000 mg/kg is exceeded, the waste may only be put on the Green List if representative and topical analytics is submitted in the case of transboundary shipment for the specific movement that provides evidence that the delivery does not contain any substances exceeding the limit values as per the POP Regulation, as amended.

Hexabromocyclododecane (HBCD)

The EU POP Regulation sets a limit value of 1,000 mg/kg by dry mass (0.1%) for hexabromocyclododecane in Annex IV for destruction or irreversible transformation.

Isolation boards from extruded polystyrene (XPS) and expanded polystyrene (EPS) contains HBCD in quantities of approx. 0.7 – 1.5%. It would only be classified as hazardous waste due to the presence of HBCD starting from a level of 3% (HBCD: Category 2 toxic to reproduction – H361) unless XPS isolation board must be classified as hazardous due to the levels of CFC/HCFC/HFC/PFC-containing propellants (cf. limit value in the Waste List Ordinance, as amended) or due to adhering contamination (e.g. asbestos).

Waste with an HBDC content of 0.1% or more must be classified as unlisted waste subject to notification requirements. In any case, the prohibitions under the EU-POP Regulation on the placing on the market of products (substances, mixtures and products) containing more than 100 mg HBCD / kg must be observed.

NB: current substitutes for HBCD are also bromine compounds; waste from new production of XPS or EPS board could only be green-listed with proof and confirmation that no HBCD was used.

I. MINERAL OIL CONTAMINATION

Under Austrian law, waste that exhibits contamination with petroleum-derived hydrocarbons above the limit value defined in the List of Waste Ordinance is always subject to the written notification and consent procedure in the case of transboundary shipment. In the event of presence of Category 1 carcinogenic mineral oils (due to a share of aromatic compounds (BTEX value) or PAH share), contamination is only admissible to the extent of 0.1 % (= 1,000 mg/kg).

A uniform Europe-wide limit value has not been defined for petroleum-derived hydrocarbons. Petroleum-derived hydrocarbons exhibit different hazard characteristics according to their composition (hazardous to the aquatic environment, carcinogenic Category 1 or Category 2, irritant, STOT/aspiration toxicity, etc.). In some EU countries, aquatotoxic properties are evaluated under chemical law under criterion HP14 ecotoxic.

NB: The permissible limit value of hydrocarbons is handled differently by the authorities responsible for shipments, so it makes sense to collect the classification of contaminations of the other participating authority on the basis of Article 28 of the EC Waste Shipment Regulation before the first shipment.

Stricter limit values in the countries of dispatch or destination shall always take precedence (Article 28 of the EC Waste Shipment Regulation).

J. WASTE WITH PERSISTENT ORGANIC POLLUTANTS

In general, all waste containing persistent organic pollutants (POPs) in quantities exceeding the limit value as per Annex IV to EC POP Regulation No 850/2004, as amended, is subject to notification requirements to verify, during the notification procedure, that the POP Regulation requirements (destruction or irreversible transformation) are actually met.

K. GLYCEROL PHASE AND TECHNICAL GLYCEROL

Glycerol phase and technical glycerol/crude glycerol arising from biodiesel production must generally be classified as hazardous waste and are subject to notification and consent requirements in cases of transboundary shipment, except where animal fats (in addition to vegetable fats) of categories 1 or 2 as per Regulation (EC) No 1069/2009 on animal by-products are used. The crude glycerol/glycerol phase arising from esterification of category 1 or 2 fats is therefore subject to approval requirements for shipment/export as per the Animal By-product Regulation and does not require notification as per the EC Waste Shipment Regulation thanks to the explicit exemption of Category 1 and 2 materials from the scope of the Waste Shipment Regulation. However, the veterinary requirements must be met.

If animal fats of category 3 and/or vegetable fats are used for biodiesel production, the resulting glycerol phase is always assumed to be **waste subject to notification requirements** in the sense of the EC Waste Shipment Regulation.

"Technical glycerol"/crude glycerol is characterised by the following parameters:

- MONG = Matter Organic Non-Glycerol, such as free fatty acids, oligomers, pyrolysis products, impurities in the raw material (mucilage in vegetable oils, residues from polysaccharides and proteins from used deep-frying oils, etc.) These impurities have a particular impact on usability (smell, etc.).
- Potassium sulphate (e.g. sulphated ash). Because crude glycerol contains water, some of the potassium sulphate is dissolved into the glycerol phase/crude glycerol on neutralisation of the caustic potash.
- Glycerol content
- Methanol content
- Water content

Under the following conditions, technically pure glycerol is not waste:

Technical glycerol prepared so that it either meets the applicable feed standards (e.g. as a pressing or feed additive, etc.) or constitutes a technical chemical (e.g. sealing liquid, dust binding agent, pure glycerol) shall be considered non-waste.

The parameters are limited as follows for classification as "non-waste":

Minimum of 80% glycerol, < 5% sulphated ash, < 1% MONG (if used in the feed sector, otherwise < 2%), < 0.2% methanol, rest: water

Introduction of a quality assurance system (with external verification) and the existence of safety data sheets/information for downstream users (REACH requirements) shall always be required.

L. FERMENTATION RESIDUE/BIOGAS SLURRY FROM BIOGAS PLANTS

The high-nutrient and high-carbon organic fermentation residues from anaerobic fermentation (biogas plants) of agricultural materials (maize, whole grain plants, grass ley, etc.) are called biogas slurries, and those from anaerobic fermentation of organic waste (food waste, fatty waste), are called fermentation residue.

Fermentation residue – biogas plants using waste

Liquid (DM < 15%) and solid fermentation residues (DM > 15%) from biogas plants that also use waste in a permissible manner must be classified as waste subject to **notification requirements (unlisted)** in cases of transboundary shipment, if they are subject to a waste-specific treatment (e.g. in biogas plants, waste-to-energy or co-incineration plants, composting plants – see Article 3 of the Waste Management Act 2002).

In the case of fermentation residues from biogas plants that have obtained biogas by using animal-based materials of category 1 or 2 as per Regulation (EC) No 1069/2009, the resulting fermentation residues again fall within the scope of the Animal By-Products Regulation (as a material of category 1 or 2) and therefore fall outside of the scope of the EC Waste Shipment Regulation (veterinary requirements must be met).

Biogas slurry - renewable raw materials plants

Biogas slurries (umbrella term for liquid and solid fermentation residues from separation) from biogas plants that only use renewable raw materials and not waste (renewable raw materials plants) are by-products if they meet the requirements of the Austrian Fertiliser Ordinance 2004, Federal Law Gazette II No 100/2004, including special requirements on placement onto the market (e.g. free of worm eggs, free of residues of plant protection products, of antibiotic agents, medications and persistent plastics, compliance with certain labelling requirements). Since inclusion of biogas slurries as raw materials for fertilisers, producers and dealers (biogas plant operators) are incorporated into the control and inspection plan for fertiliser oversight.

9.2.6.6. RADIOACTIVITY

Waste, particularly scrap (Green List), shall neither be radioactive (e.g. due to neutron activation, especially in the case of metal waste accumulating from nuclear reactors; other sources of radioactivity may be technetium content in corrosion-proof steel alloys, for example) nor exhibit any radioactive contaminants (substances that exhibit radioactivity greater than the natural background radiation, e.g. non-natural radionuclides such as potassium).

The Ordinance on the Supervision and Control of Shipments of Radioactive Waste and Spent Nuclear Fuel from, into or through the Federal Austrian Territory (Radioactive Waste Shipment Ordinance 2009), Federal Law Gazette II No 47/2009 fully transposed Directive 2006/117/Euratom into national law.

The Austrian Radiation Protection Act, Federal Law Gazette No 227/1969 has been adapted to the regulations of the European Community. A series of Ordinances are based on the Austrian Radiation Protection Act, such as the General Radiation Protection Ordinance (Federal Law Gazette II No 191/2006).

The limit values for the different nuclides (permitted limits) are listed in the Annex to the General Radiation Protection Ordinance.

Waste (e.g. waste metals) considered radioactive within the meaning of the Austrian Radiation Protection Act or the Radiation Protection Ordinance is subject to the appropriate regulatory approvals in accordance with radiation protection legislation.

The relevant radiation protection provisions are available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

9.2.7. END-OF-WASTE

9.2.7.1. EU END-OF-WASTE REGULATION

EU end-of-waste for specific scrap types

EU Regulation No 333/2011 sets out criteria for when certain types of iron, steel and aluminium scrap are no longer considered to be waste pursuant to Directive 2008/98/EC on waste. EU Regulation No 715/2013 sets out the pre-conditions under which copper scrap is no longer considered to be waste. The regulations define end-of-waste status and apply directly in every member state.

As conditions for premature end-of-waste status, both regulations set out provisions on

1. scrap quality,
2. the input material supplied for recovery, and
3. the treatment procedure and techniques.

All treatment steps such as crushing, shredding, cleaning or decontamination that are required to prepare the scrap for recovery in steel or aluminium plants must always be completed before waste status is lost. The scrap shall not under any circumstances exhibit hazardous properties levels (such as due to contamination) as per Annex III to Directive 98/2008 (amended by Regulation (EU) No 1357/2014 as well as Regulation (EU) 2017/997) or exceed the defined concentration limits in Annex IV to Regulation (EC) No 850/2004 (the POP Regulation).

The total amount of non-hazardous foreign materials shall not exceed **2% by mass for iron/steel scrap and copper scrap**. The scrap shall not contain any excessive metal oxides in any form or any visible oil, oil emulsions, lubricants or fats, unless they are no more than insignificant quantities that do not leak out. The scrap must be "free" of radioactivity (in any case, it shall not require any response measures!).

The scrap must be free of containers that are under pressure, closed or inadequately opened which could cause explosions during recovery and free of PVC in the form of coatings, paints or residual plastics.

The following waste types shall not be supplied as input waste in the treatment process for end-of-waste: filings and turnings containing liquids such as oil or oil emulsions (i.e. de-oiling is always necessary) as well as drums and containers (excluding end-of-life vehicles) that hold or held oil or paint.

The same criteria apply to the end-of-waste status for **aluminium scrap** as apply for other scrap, except for the permissible total amount of non-hazardous foreign materials, which has been fixed at no more than 5% by mass or a metal yield of **at least 90%**.

EU end-of-waste for glass

Regulation (EU) No 1179/2012 defines criteria for when certain types of glass cullet are no longer considered waste. The percentages of the following non-glass components have been standardised:

– ferrous metals: ≤ 50 ppm; – non-ferrous metals: ≤ 60 ppm; – non-metal, non-glass inorganics: < 100 ppm for glass cullet size > 1 mm; < 1,500 ppm for glass cullet size ≤ 1 mm; – organic substances: ≤ 2,000 ppm.

Examples for non-metal, non-glass inorganics: ceramics, stone, porcelain, pyroceramics. Examples of organic substances: paper, rubber, plastic, fabric, wood.

The glass cullet shall neither exhibit any hazardous properties as indicated in Annex III of Directive 2008/98/EC (amended by Directive (EU) No 1357/2014 as well as Regulation (EU) 2017/997) nor exceed the limit values as per Annex IV of POP Regulation (EC) No 850/2004.

Only waste from the collection of recoverable container glass, flat glass or lead-free tableware shall be supplied for recovery. Hazardous waste (e.g. lead glass from cathode ray tubes) is not permitted as input waste.

General information on the EU End-of-waste Regulations

It is a particular priority for the producer of the materials with end-of-waste status to use a quality management system and demonstrate that all mandatory criteria under the End-of-Waste Regulation are met for every consignment by means of a conformity declaration (see the relevant ANNEXES to the indicated EU End-of-waste Regulations).

The producer or importer into the European Union shall provide the conformity declaration to the next holder of end-of-waste materials. The conformity declaration may also take electronic form.

In Austria, the mandatory accompaniment of this conformity declaration with shipments of substances, products or goods that are no longer regarded as waste is specified in Section 15(8) of the Waste Management Act 2002.

Within the framework of the quality management system, compliance with all provisions of this regulation must be demonstrated. The producer shall grant the competent authorities access to the quality management system on request.

The conformity assessment body may be a body as per **Regulation (EC) No 765/2008** (accreditation and market surveillance relating to the marketing of products, e.g. CE certification body) or another environmental verifier in the sense of **Regulation (EC) No 1221/2009 EMAS** (NB: certification as per ISO 14000 et seq is not adequate). The verification must be conducted once every three years.

9.2.7.2. NATIONAL END-OF-WASTE REGULATIONS

At this time, national End-of-waste Regulations exist under the following Ordinances:

- Waste Incineration Ordinance (waste fuel products),
- Recycled Wood Ordinance,
- Recycled Construction Materials Ordinance,
- Compost Ordinance.

Moreover, the procedure as per Section 6 of the Waste Management Act 2002 may also determine the waste/non-waste status of certain goods/materials (assessment procedure).

NB: National End-of-waste Regulations and assessment procedures only apply at national level. Article 28 of the EC Waste Shipment Regulation applies to transboundary shipments.

9.2.8. CHECKS UNDER WASTE REGULATIONS

The EC Waste Shipment Regulation was updated by Regulation (EU) No 660/2014 of 15 May 2014. The main content of this update, applicable since 1 January 2016, is the binding **drafting of waste inspection plans** (one or more plans for the entire geographic area) starting from **1 January 2017** and implementation rules for adequate documentation of non-waste (end-of-waste, by-product) and/or Green List waste (cf. **introduction of reverse burden of proof**).

The inspection plans are based on a risk assessment for special waste streams and the origins of illegal shipments taking into consideration intelligence data, e.g. data on police and customs investigations and analyses of criminal activities.

Shipments can be inspected on the basis of the EC Waste Shipment Regulation, in particular as follows:

- at the point of origin carried out with the producer, holder or notifier,
- at the point of destination, including interim and non-interim recovery or disposal, carried out with the consignee or the facility,
- at the frontiers of the Union and/or
- during shipment within the Union.

Reverse burden of proof means that the person reporting the shipment of used goods and/or by-products or end-of-waste materials must demonstrate to the control bodies/authorities that they are not waste by means of **corresponding conclusive documents**. It is particularly necessary to take into account provisions for shipment of used electrical and electronic equipment, vehicle replacement parts and used vehicles. For end-of-waste materials in the sense of the relevant EU End-of-waste Regulations, conformity declarations must accompany the consignment as per Austrian law; in other cases of materials classified as by-products or end-of-waste materials, corresponding declaratory decrees and/or written opinions from the competent environmental authorities, any applicable product information/registrations as per REACH¹⁴, analyses demonstrating specific content levels, should accompany the consignment to avoid long waiting times. This will prevent illegal shipments more effectively.

¹⁴Registration as per REACH is a necessary condition for placement of substances and mixtures onto the market, but not adequate evidence of their non-waste status.

The authorities involved in verification may come to the decision that the substances and objects in question are waste if the required proof that the substances or objects are not waste is not submitted within the timeframe they specify or they are of the opinion that the information and evidence available to them is not adequate for an assessment or the protection from damage is not sufficient.

Under these circumstances, the movement of the substance or objects in question or shipment of the waste in question is considered an illegal shipment.

For shipments of waste subject to the general information requirements as per Article 18 of the EC Waste Shipment Regulation, in cases of doubt the authorities involved in inspections may require the person arranging the shipment to submit written proof of environmentally sound management (Article 49 of the EC Waste Shipment Regulation) provided by the interim recovery facility (R12, R13 procedure) and non- interim recovery facility and, where necessary, confirmed by the competent authority of destination.

9.2.9. CHEMICALS LEGISLATION

9.2.9.1. REACH REGULATION

REACH stands for the "Registration, Evaluation, Authorisation and restriction of Chemicals".

The REACH Regulation (EC) No 1907/2006 is directly applicable in all member states and does not require national transposition.

Waste is excluded from REACH given that waste within the meaning of the EC Waste Framework Directive is not a substance, a mixture (preparation) or an article within the meaning of REACH.

If materials are recycled from waste and cease to be waste then they are subject to the registration obligations of REACH unless REACH features an explicit exemption clause. REACH provides for an exemption from the registration obligation for recycled materials under certain conditions.

The REACH registration is not an act that changes the waste status.

Information on REACH is available on the Federal Ministry of Agriculture, Forestry, Environment and Water Management website.

Recovery, recycling of waste

Substances recovered from waste in the EU are exempt from registration if the substance that results from the recovery process is identical to a substance already registered and the information prescribed by Article 31 (safety data sheet) or Article 32 on the substance already registered is available to the establishment undertaking the recovery.

9.2.9.2. CLP REGULATION

In parallel with REACH, the European classification and labelling of chemicals has been adjusted to the specifications of the United Nations for a Globally Harmonised System (GHS).

The main content of the CLP Regulation (EC) No 1272/2008 (Classification, Labelling, and Packaging) refers to new rules for the classification and labelling of hazardous chemical substances and mixtures (preparations).

The type of hazard is indicated by the hazard class. Within each hazard class, hazards are ranked into hazard categories.

A partial harmonisation of waste legislation with the CLP Regulation was carried out within the framework of the amendment of the EU hazard characteristics (see Regulation (EU) No 1357/2014 replacing Annex III of Directive 2008/98/EC as well as Regulation (EU) 2017/997 amending Annex III as regards the hazardous property HP 14 "ecotoxic") in the context of the (minor) update of the European List of Waste.

NB: It is entirely possible that a residue of a substance or a mixture (waste) that is hazardous under chemical law must be classified as non-hazardous under waste law (cf. higher limit values for "sensitisers" in HP13, for instance), or also that a substance that must be classified as non-hazardous under chemical law must be classified as hazardous waste under waste law based on the additional consideration of the hazard property HP15 ("yielding another material" – national definition of leachate properties and total pollutant content levels).

9.2.10. CONSOLIDATED WASTE LISTS OF THE EC WASTE SHIPMENT REGULATION

9.2.10.1. ANNEX III – GREEN WASTE LIST

List of wastes subject to the general information obligations pursuant to Article 18

Irrespective of whether a waste is included in this list, these wastes must not be subject to the general information obligations pursuant to Article 18 if contamination with other materials

- increases the risks associated with the waste sufficiently to render them appropriate for submission to the procedure of prior written notification and consent when taking into account the hazardous characteristics listed in Regulation (EU) No 1357/2014 replacing Annex III to Council Directive 2008/98/EC and Regulation (EU) No 2017/997 amending Annex III as regards the hazardous property HP14 "ecotoxic", or
- prevents the recovery of the wastes in an environmentally sound manner.

The following wastes are subject to the general information obligations pursuant to Article 18:

B1 METALS AND METAL-BEARING WASTES

B1010 Metal and metal alloy wastes in metallic, non-dispersible form:

- Precious metals (gold, silver, the platinum group, but not mercury)
- Iron and steel scrap
- Copper scrap
- Nickel scrap
- Aluminium scrap
- Zinc scrap
- Tin scrap
- Tungsten scrap
- Molybdenum scrap
- Tantalum scrap
- Magnesium scrap
- Cobalt scrap
- Bismuth scrap
- Titanium scrap
- Zirconium scrap
- Manganese scrap
- Germanium scrap
- Vanadium scrap
- Scrap of hafnium, indium, niobium, rhenium and gallium
- Thorium scrap
- Scrap of rare earth metals
- Chromium scrap

B1020 Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):

- Antimony scrap
- Beryllium scrap
- Cadmium scrap
- Lead scrap (but excluding lead-acid batteries)
- Selenium scrap
- Tellurium scrap

B1030 Refractory metal-bearing residues

B1031 Molybdenum, tungsten, titanium, tantalum, niobium and rhenium metals and metal alloy wastes in metallic dispersible form (metal powder), excluding such waste as specified in list A at entry A1050¹⁵, galvanic sludges

B1040 Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous

B1050 Mixed non-ferrous metals, heavy fraction (shredder scrap), not containing any of the substances listed in Annex I (Basel Convention) in such concentrations that they exhibit any of the characteristics listed in Annex III (Basel Convention)

¹⁵ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment Regulation

B1060 Waste selenium and tellurium in metallic elemental form including powder

B1070 Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents (Basel Convention) to an extent that they exhibit Annex III (Basel Convention) characteristics

B1080 Zinc ash and residues, including zinc alloy residues in dispersible form, unless containing Annex I constituents (Basel Convention) in such concentrations that they exhibit Annex III (Basel Convention) characteristics or they exhibit hazardous characteristic H4.3

B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

B1100 Metal-bearing wastes arising from melting and refining of metals:

- Hard zinc spelter
- Zinc-containing drosses:
 - Galvanising slab zinc top dross (>90% Zn)
 - Galvanising slab zinc bottom dross (>92% Zn)
 - Zinc die cast dross (>85% Zn)
 - Hot dip galvaniser slab zinc dross (batch) (>92% Zn)
 - Zinc skimmings
 - Aluminium skimmings (or skims), except salt slag
 - Wastes of refractory linings, including crucibles, originating from copper smelting
 - Slag from precious metals processing for further refining
 - Tantalum-bearing tin slag with less than 0.5% tin

GB040 ex 7112, 262030, 262090 Slag from precious metals and copper processing for future refining

B1110 does not apply; instead of it, the two following OECD entries GC010 and GC020 apply.

B1110 Electrical and electronic appliances

- electronic assemblies consisting only of metals or alloys
- waste electrical and electronic assemblies or scrap⁽¹⁾ (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury switches, glass from cathode-ray tubes and other activated glass and PCB capacitors, or not contaminated with Annex I (Basel Convention) constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (Basel Convention) (note the related entry on list A, A1180)
 - (1) This entry does not cover scrap from power plants.
- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse⁽²⁾, and not for recycling or disposal⁽³⁾
 - (2) Reuse may include repair, refurbishment or upgrade, but not major reassembly.
 - (3) In some countries, materials intended for direct re-use are not classified as waste.

GC010 Electrical assemblies consisting only of metals or alloys

GC020 Electronic scrap (e.g. printed circuit boards, electronic components, wire etc.) and reclaimed electronic components suitable for base and precious metal recovery

B1115 Waste metal cables coated or insulated with plastics, not included on list A¹⁶, A1190, excluding those destined for Annex IV Section A (Basel Convention) operations or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open burning

B1120 Spent catalysts excluding liquids used as catalysts, containing any of:

- Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A: scandium - vanadium - manganese - cobalt - copper - yttrium - niobium - hafnium - tungsten - titanium - chromium - iron - nickel - zinc - zirconium - molybdenum - tantalum - rhenium
- Lanthanides (rare earth metals): lanthanum - praseodymium - samarium - gadolinium - dysprosium - erbium - ytterbium - cerium - neodymium - europium - terbium - holmium - thulium - lutetium

¹⁶ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment Regulation

B1130 Cleaned spent precious-metal-bearing catalysts

GC050 Spent fluid catalytic cracking catalysts (e.g. alumina, zeolites)

B1140 Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides

B1150 Precious metal and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

B1160 Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A¹⁷, A1150)

B1170 Precious-metal ash from the incineration of photographic film

B1180 Waste photographic film containing silver halides or metallic silver

B1190 Photographic paper waste containing silver halides or metallic silver

B1200 Granulated slag arising from the manufacture of iron and steel

B1210 Slag arising from the manufacture of iron and steel including slags as a source of TiO₂ and vanadium

B1220 Slag from zinc production, chemically stabilised, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301) mainly for construction

B1230 Mill scaling arising from the manufacture of iron and steel

B1240 Copper oxide mill scale

B1250 Waste end-of-life motor vehicles containing neither liquids nor other hazardous components

GC030 ex 890800 Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste

B2 WASTE CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS WHICH MAY CONTAIN METALS OR ORGANIC MATERIALS

B2010 Wastes from mining operations in non-dispersible form:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed ore merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica waste in solid form excluding those used in foundry operation

B2020 Waste glass in non-dispersible form

- Cullet and others waste and scrap of glass, except for glass from cathode-ray tubes and other activated glasses

GE020 ex 7001, ex 701939 Glass fibre waste without risk of dispersion

B2030 Waste ceramics in non-dispersible form

- Cermet wastes and shards (metal ceramic composites)
- Ceramic based fibres not elsewhere specified or included

GF010 Ceramic wastes (without risk of dispersion) fired after shaping, including ceramic vessels (before or after use)

B2040 Other wastes containing principally inorganic constituents

- Partially refined calcium sulphate produced from flue-gas desulphurisation (FGD)
- Waste gypsum wallboard and plasterboard arising from the demolition of buildings
- Slag from copper production, chemically stabilised, with a high iron content (above 20%) and processed in accordance with industry specifications (e.g. DIN 4301 and DIN 8201) mainly for construction or abrasive specifications
- Sulphur in solid form

¹⁷ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment Regulation

- Limestone from the production of calcium cyanamide (pH < 9)
- Sodium, potassium, calcium chlorides
- Carborundum (silicon carbide)
- Broken concrete
- Lithium-tantalum and lithium-niobium containing glass scraps

GG030 ex 2621 Bottom ash and slag tap from coal-fired power plants

B2050 does not apply; instead of it, OECD entry GC040 applies.

B2050 Fly ash from coal-fired power plants not included on list A (note the related entry on list A¹⁸, A2060)

GG040 ex 2621 Fly ash from coal-fired power plants

B2060 Spent activated carbon not containing any Annex I (Basel Convention) constituents to the extent that they exhibit Annex III (Basel Convention) characteristics, for example, carbon resulting from the treatment of potable water and processes in the food industry and vitamin production (note the related entry on list A¹⁸, A4160)

B2070 Calcium fluoride sludge

B2080 Waste gypsum arising from chemical industry processes not included on list A (Basel Convention) (note the related entry on list A, A2040)

B2090 Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor-alkali electrolysis and from the metallurgical industry)

B2100 Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

B2110 Bauxite residues (red mud) (after pH adjustment to < 11.5)

B2120 Waste acidic or basic solutions with a pH > 2 and < 11.5 which are not corrosive or otherwise hazardous (note the related entry on list A¹⁸, A4090)

B2130 Bituminous material (waste asphalt) from road construction and road maintenance, not containing tar (note the related entry on list A¹⁸, A3200)

Note: The benzo(a)pyrene content must be less than 50 mg/kg.

B3 WASTE CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS WHICH MAY CONTAIN METALS OR INORGANIC MATERIALS

B3010 Solid waste plastic

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

- Scrap plastic of non-halogenated polymers and copolymers, including without limitation the following^(*):
 - ^(*) these plastics are deemed to be fully polymerised
 - Ethylene
 - Styrene
 - Polypropylene
 - Polyethylene terephthalate
 - Acrylonitrile
 - Butadiene
 - Polyacetals
 - Polyamides
 - Polybutylene terephthalate
 - Polycarbonates
 - Polyethers
 - Polyphenylene sulphides
 - Acrylic polymers
 - Alkanes (C10-C13) (plasticiser)
 - Polyurethanes (not containing CFCs)

¹⁸ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment

- Polysiloxanes
- Polymethyl methacrylate
- Polyvinyl alcohol
- Polyvinyl butyral
- Polyvinyl acetate
- Cured resin waste or condensation products including the following substances:
 - Urea formaldehyde resins
 - Phenol formaldehyde resins
 - Melamine formaldehyde resins
 - Epoxy resins
 - Alkyd resins
 - Polyamides
- The following fluorinated polymer wastes (waste produced by consumers is not covered by this entry):
 - Perfluoroethylene/propylene (FEP)
 - Perfluoro alkoxy alkane
 - Tetrafluoroethylene/per fluoro vinyl ether (PFA)
 - Tetrafluoroethylene/per fluoro methylvinyl ether (MFA)
 - Polyvinylfluoride (PVF)
 - Polyvinylidene fluoride (PVDF)
 - Polymers and copolymers of fluorinated ethylene (PTFE, Teflon®)

GH013 391530, ex 390410-40 Vinylchloride polymers

B3020 Paper, paperboard and paper product waste

The following materials, to the extent not mixed with hazardous waste:

Wastes and scrap of paper and paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard
- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- paper or paperboard mainly of mechanical pulp (e.g. newspapers, journals and similar printed matter)
- others, including but not limited to:
 - coated/laminated paperboard
 - unsorted scraps

B3026 The following waste from the pre-treatment of composite packaging for liquids, not containing Annex I (Basel Convention) materials in concentrations sufficient to exhibit any Annex III (Basel Convention) characteristics:

- Non-separable plastic fraction
- Non-separable plastic-aluminium fraction

B3027 Self-adhesive label laminate waste containing raw materials used in label material production

B3030 Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)
 - Not carded or combed
 - Other
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock
 - Noils of wool or fine animal hair
 - Other waste of wool or of fine animal hair
 - Waste of coarse animal hair
- Cotton waste (including yarn waste and garnetted stock)
 - Yarn waste
 - Garnetted stock
 - Other
- Flax tow and waste
- Tow and waste (including yarn waste and garnetted stock) of true hemp (*Cannabis sativa* L.)
- Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding

- flax, true hemp and ramie)
- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus *Agave*
- Tow, noils and waste (including yarn waste and garnetted stock) of coconut
- Tow, noils and waste (including yarn waste and garnetted stock) of abaca (*Manila hemp* or *Musa textilis* Nee)
- Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
- Waste (including noils, yarn waste and garnetted stock) of man-made fibres
 - of synthetic fibres
 - of artificial fibres
- Worn clothing and other worn textile articles
- Used rags, scrap twine, cordage, rope and cables and worn-out articles of twine, cordage, rope or cables of textile
 - sorted
 - other

B3035 Waste textile floor coverings, carpets

B3040 Rubber wastes

The following materials, provided they are not mixed with other wastes:

- Waste and scraps of hard rubber (e.g. ebonite)
- Other rubber wastes (excluding such wastes specified elsewhere)

B3050 Untreated cork and wood waste

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
- Cork waste: Crushed, granulated or ground cork

B3060 Wastes arising from agro-food industries provided they are not infectious:

- Wine lees
- Dried and sterilised vegetable waste, residues, and by-products, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
- Degras: Residues resulting from the treatment of fatty substances or animal or vegetable waxes
- Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised
- Fish waste
- Cocoa shells, husks, skins and other cocoa waste
- Other wastes from the agro-food industry, excluding by-products which meet national and international requirements and standards for human or animal consumption

B3065 Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit an Annex III (Basel Convention) characteristic

B3070 The following wastes:

- Waste of human hair
- Waste straw
- Deactivated fungus mycelium from penicillin production to be used as animal feed

B3080 Waste parings and scrap of rubber

B3090 Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A¹⁹, A3100)

B3100 Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A¹⁹, A3090)

B3110 Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A¹⁹, A3110)

GN010 ex 050200 Waste of pigs' hogs' or boars' bristles and hair or of badger hair and other brush making hair

¹⁹ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment Regulation

GN020 ex 050300 Horsehair waste, whether or not put up as a layer with or without supporting material

GN030 ex 050590 Waste of skins and other parts of birds, with their feathers or down, of feathers and parts of feathers (whether or not with trimmed edges) and down, not further worked than cleaned, disinfected or treated for preservation

B3120 Wastes consisting of food dyes

B3130 Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

B3140 Waste pneumatic tyres, excluding those destined for Annex IV Section A (Basel Convention) operations

B4 WASTES WHICH MAY CONTAIN INORGANIC AND ORGANIC CONSTITUENTS

B4010 Wastes consisting mainly of water-based/latex paints, inks, and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A²⁰, A4070)

B4020 Wastes from production, formulation and use of resins, latex, plasticisers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g. water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A²⁰, A3050)

B4030 Used single-use cameras, with batteries not included on list A

9.2.10.2. ANNEX IIIA – GREEN WASTE LIST MIXTURES

Mixtures of two or more wastes listed in Annex III and not classified under one single entry (Article 3(2))

1. Regardless of whether or not mixtures of wastes are included on this list, they may not be subject to the general information requirements laid down in Article 18 if they are contaminated by other materials to an extent which
 - increases the risks associated with the waste sufficiently to render them appropriate for submission to the procedure of prior written notification and consent when taking into account the hazardous characteristics listed in Regulation (EU) No 1357/2014 replacing Annex III to Council Directive 2008/98/EC as well as Regulation (EU) 2017/997 amending Annex III as regards hazardous property HP 14 (“ecotoxic”), or
 - prevents the environmentally sound recovery of the waste.
2. The following mixtures of waste are included in this Annex:
 - a. mixtures of wastes classified under Basel entries B1010 and B1050,
 - b. mixtures of wastes classified under Basel entries B1010 and B1070,
 - c. mixtures of wastes classified under Basel entries B3040 and B3080,
 - d. mixtures of wastes classified under OECD entry GB040 and under Basel entry B1100 restricted to hard zinc spelter, zinc-bearing drosses, aluminium skimmings (or skims) excluding salt slag and wastes of refractory linings, including crucibles, originating from copper smelting,
 - e. mixtures of wastes classified under (OECD) entry GB040, under Basel entry B1070 and under Basel entry B1100 restricted to wastes of refractory linings, including crucibles, originating from copper smelting.

NB: The entries referred to in points (d) and (e) shall not apply for exports to countries to which the OECD Decision does not apply.

3. The following mixtures of wastes classified under separate indents or sub-indents of one single entry of the Basel Convention are included in this Annex:
 - a. Mixtures of waste classified under Basel entry B1010 (ferrous metals and non-ferrous-metals),
 - b. Mixtures of waste classified under Basel entry B2010 (mining waste),
 - c. Mixtures of waste classified under Basel entry B2030 (ceramic waste including cermets),
 - d. Mixtures of wastes classified under Basel entry B3010 (plastics) and listed under "scrap plastic of non-halogenated polymers and copolymers",

²⁰ References to list A of the Basel Convention relate to Annex IV in the EC Waste Shipment Regulation

- e. Mixtures of wastes classified under Basel entry B3010 (plastics) and listed under "cured waste resins or condensation products",
- f. Mixtures of wastes classified under Basel entry B3010 (plastics) and listed under "Perfluoro alkoxyl alkane",
- g. Mixtures of wastes classified under Basel entry B3020 (paper) restricted to unbleached paper or paperboard or of corrugated paper or paperboard, other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass, paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter),
- h. Mixtures of waste classified under Basel entry B3030 (textile wastes),
- i. Mixtures of waste classified under Basel entry B3040 (rubber wastes),
- j. Mixtures of waste classified under Basel entry B3050 (not chemically treated wood and cork).

The statements under each entry apply also to the respective mixture listed in Annex IIIA (e.g. condition: non-dispersible, without risk of dispersion, etc.)

9.2.10.3. ANNEX IIIB – EU-INTERNAL GREEN WASTE LIST

Additional green-listed waste awaiting inclusion in the relevant Annexes to the Basel Convention or the OECD decision as referred to in Article 58(1)(b)

1. Irrespective of whether a waste is included in this list, these wastes must not be subject to the general information obligations pursuant to Article 18 if contamination with other materials
 - increases the risks associated with the waste sufficiently to render them appropriate for submission to the procedure of prior written notification and consent when taking into account the hazardous characteristics listed in Regulation (EU) No 1357/2014 replacing Annex III to Council Directive 2008/98/EC as well as Regulation (EU) 2017/997 amending Annex III as regards hazardous property HP 14 ("ecotoxic"), or
 - prevents the environmentally sound recovery of the waste.

2. The following wastes are included in this Annex:

BEU04 Composite packaging consisting of mainly paper and some plastic, not containing residues and not covered by Basel entry B3020

BEU05 Clean biodegradable waste from agriculture, horticulture, forestry, gardens, parks and cemeteries



Figure 10: Logging

9.2.10.4. ANNEX IV – AMBER WASTE LIST

List of wastes subject to the procedure of prior written notification and consent

The following wastes will be subject to the procedure of prior written notification and consent:

Wastes listed in Annex II to the Basel Convention

Y46 Waste collected from households

Y47 Residues arising from the incineration of household waste

LIST A (ANNEX VIII TO THE BASEL CONVENTION)

A1 METALS AND METAL-BEARING WASTES

A1010 Metal wastes and waste consisting of alloys of any of the following:

- Antimony
- Arsenic
- Beryllium
- Cadmium
- Lead
- Mercury
- Selenium
- Tellurium
- Thallium

but excluding such wastes specifically listed on list B²¹

A1020 Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:

- Antimony; antimony compounds
- Beryllium; beryllium compounds
- Cadmium; cadmium compounds
- Lead; lead compounds
- Selenium; selenium compounds
- Tellurium; tellurium compounds

A1030 Wastes having as constituents or contaminants any of the following:

- Arsenic; arsenic compounds
- Mercury; mercury compounds
- Thallium; thallium compounds

A1040 Wastes having as constituents any of the following:

- Metal carbonyls
- Hexavalent chromium compounds

A1050 Galvanic sludges

A1060 Waste liquors from the pickling of metals

A1070 Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.

A1080 Waste zinc residues not included on list B²¹, containing lead and cadmium in concentrations sufficient to exhibit Annex III (Basel Convention) characteristics

A1090 Ashes from the incineration of insulated copper wire

A1100 Dusts and residues from gas cleaning systems of copper smelters

A1110 Spent electrolytic solutions from copper electrorefining and electrowinning operations

A1120 Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations

A1130 Spent etching solutions containing dissolved copper

A1140 Waste cupric chloride and copper cyanide catalysts

A1150 Precious metal ash from incineration of printed circuit boards not included on list B

²¹ References to list B of the Basel Convention relate to Annex III in the EC Waste Shipment

A1160 Waste lead-acid batteries, whole or crushed

A1170 Unsorted waste batteries excluding mixtures of only list B²² batteries. Waste batteries not specified on list B containing Annex I constituents (Basel Convention) to an extent to render them hazardous

A1180 Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries included on list A, mercury switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I (Basel Convention) constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (Basel Convention).

Entry A1180 is not included in Annex IV to the EC Waste Shipment Regulation, but should be used where applicable as the Basel code for scrap electrical and electronic assemblies with hazardous characteristics.

A1190 Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB, lead, cadmium, other organohalogen compounds or other Annex I (Basel Convention) constituents, to the extent that they exhibit Annex III (Basel Convention) characteristics

AA010 261900 Dross, scalings and other wastes from the iron or steel industry

AA060 262050 Vanadium ashes and residues

AA190 810420, ex 810430 Magnesium waste and scrap that is flammable, pyrophoric or emits, upon contact with water, flammable gases in dangerous quantities

A2 WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS

A2010 Glass waste from cathode-ray tubes and other activated glasses

A2020 Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B²²

A2030 Waste catalysts but excluding such wastes specified on list B²².

A2040 Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex III (Basel Convention) hazardous characteristic (note the related entry on list B²², B2080)

A2050 Waste asbestos (dusts and fibres)

A2060 Coal-fired power plant fly-ash containing Annex I (Basel Convention) substances in concentrations sufficient to exhibit Annex III (Basel Convention) characteristics (note the related entry on list B²², B2050)

Entry A2060 is not included in Annex IV to the EC Waste Shipment Regulation, but should be used where applicable for coal-fired power plant fly-ash with hazardous characteristics.

AB030 Wastes from non-cyanide based systems which arise from surface treatment of metals

AB070 Sands used in foundry operations

AB120 ex 281290 ex 3824 Inorganic halide compounds, not elsewhere specified or included

AB130 Used blasting grit

AB150 ex 382490 Unrefined calcium sulphite and calcium sulphate from flue gas desulphurisation (FGD)

RB020 ex 6815 Ceramic-based fibres of physico-chemical characteristics similar to those of asbestos

²² References to list B of the Basel Convention relate to Annex III in the EC Waste Shipment Regulation

A3 WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS

- A3010** Waste from the production or processing of petroleum coke and bitumen
- A3020** Waste mineral oils unfit for their originally intended use
- A3030** Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges
- A3040** Waste thermal (heat transfer) fluids
- A3050** Wastes from production, formulation and use of resins, latex, plasticisers, glues/adhesives excluding such wastes specified on list B (note the related entry on list B²³, B4020)
- A3060** Waste nitrocellulose
- A3070** Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges
- A3080** Waste ethers not including those specified on list B²³
- A3090** Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B²³, B3100)
- A3100** Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B²³, B3090)
- A3110** Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B²³, B3110)
- A3120** Fluff – light fraction from shredding
- A3130** Waste organic phosphorous compounds
- A3140** Waste non-halogenated organic solvents but excluding such wastes specified on list B²³.
- A3150** Waste halogenated organic solvents
- A3160** Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations
- A3170** Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloroethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)
- A3180** Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more
- A3190** Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment of organic materials
- A3200** Bituminous material (asphalt waste) from road construction and maintenance, containing tar (note the related entry on list B²³, B2130)

AC060 ex 381900 Hydraulic fluids

AC070 ex 381900 Brake fluids

AC080 ex 382000 Antifreeze fluids

AC150 Chlorofluorocarbons

AC160 Halons

AC170 ex 440310 Treated cork and wood wastes

AC250 Surface active agents (surfactants)

²³ References to list B of the Basel Convention relate to Annex III in the EC Waste Shipment Regulation

AC260 ex 3101 Liquid pig manure; faeces

AC270 Sewage sludge

A4 WASTES WHICH MAY CONTAIN INORGANIC OR ORGANIC CONSTITUENTS

A4010 Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B²⁴.

A4020 Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects

A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated²⁵ or unfit for their originally intended use

A4040 Wastes from the manufacture, formulation and use of wood-preserving chemicals

A4050 Wastes that contain, consist of or are contaminated with any of the following:

- Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides
- Organic cyanides

A4060 Waste oils/water, hydrocarbons/water mixtures, emulsions

A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B²⁴, B4010)

A4080 Wastes of an explosive nature (but excluding such wastes specified on list B²⁴)

A4090 Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B²⁴, B2120)

A4100 Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B²⁴.

A4110 Wastes that contain, consist of or are contaminated with any of the following:

- any congener of polychlorinated dibenzo-furan
- any congener of polychlorinated dibenzo-p-dioxin

A4120 Wastes that contain, consist of or are contaminated with peroxides

A4130 Waste packages and containers containing Annex I (Basel Convention) substances in concentrations sufficient to exhibit Annex III (Basel Convention) hazard characteristics

A4140 Waste consisting of or contaminated with off-specification or outdated chemicals corresponding to Annex I (Basel Convention) categories and exhibiting Annex III (Basel Convention) hazard characteristics

A4150 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known

A4160 Spent activated carbon not included on list B (note the related entry on list B²⁴, B2060)

AD090 ex 382490 Wastes from production, formulation and use of reprographic and photographic chemicals and materials not elsewhere specified or included

AD100 Wastes from non-cyanide based systems which arise from surface treatment of plastics

AD120 ex 391400, ex 3915 Ion exchange resins

AD150 Naturally occurring organic material used as a filter medium (such as bio-filters)

²⁴ References to list B of the Basel Convention relate to Annex III in the EC Waste Shipment Regulation

²⁵ Outdated means unused within the period recommended by the manufacturer

9.3. TECHNICAL FRAMEWORK CONDITIONS – EXPLANATORY NOTES TO THE WASTE CATEGORIES

9.3.1. EXPLANATORY NOTES TO ANNEX III (GREEN WASTE LIST)

General remarks:

The explanatory notes to the wastes in Annex III are given in alphabetical order according to the waste designation.

It must be noted that the assignment of Green List entries to the European List of Waste (EWL) is only done by way of example and is non-exhaustive.

For lack of an alternative code, EWL code 12 01 01, Ferrous metal filings and turnings, should also be used, because of the identical material quality, for pieces of iron and steel punching waste from processes in mechanical shaping and physical and mechanical surface treatments.

For lack of an alternative code, EWL code 12 01 03, Non-ferrous metal filings and turnings, should also be used, because of the identical material quality, for pieces of non-ferrous punching waste from processes in mechanical shaping and physical and mechanical surface treatments.



Figure 11: Tin scrap

NATIONAL CONDITIONS FOR CLASSIFICATION IN THE GREEN LIST

"Non-dispersible": Particle size greater than 100 micrometers

"Bulk form" ("massive form"): Particle size greater than 1 mm

PERMITTED MARGINS FOR CLASSIFICATION ON THE GREEN WASTE LIST

(List is non-exhaustive; otherwise individual decision on classification)

Code	Waste	Permitted contamination with other waste on the Green List in % by mass ¹
B1010 (non-dispersible)	metal scrap precious metals (other than Hg): Au, Ag, platinum group Fe/steel, Cu, Ni, Al, Zn, Sn, W, Mo, Ta, Mg, Co, Bi, Ti, Zr, Mn, Ge, V, Hf, In, Nb, Re, Ga, Th, rare earth metals, Cr	10 % of these max. 5% waste incineration slag (Y47 – Amber Waste List) Dispersible metal proportions are also considered contaminants
B1020 (bulk)	metal scrap Sb, Be, Cd, Pb, Se, Te	10 % Non-bulk metal proportions are also considered contaminants
B1050 (non-dispersible)	non-ferrous shredder heavy fraction	10 % of these max. 5% waste incineration slag (Y47 – Amber Waste List) Dispersible metal proportions are also considered contaminants
ANNEX IIIA: B1010 B1010+1050 B1010+1070 (non-dispersible, excluding disperse Cu/Cu-alloy waste regarding B1010+1070)	Defined metal scrap mixtures	10 % of these max. 5% waste incineration slag (Y47 – Amber Waste List) Dispersible metal proportions are also considered contaminants (excluding dispersible Cu/Cu-alloy waste regarding B1010+1070)
B2020 (non-dispersible)	Glass waste	10% Lead oxide content max. 0.3%
B3010 and in this regard ANNEX IIIA mixtures	Solid waste plastic and cured resins and defined mixtures	10 %, of which share in PVC at maximum 5%; share in treated wood, at max. 1 % Brominated flame retardants: < 0.1% total POP-PBDE < 0.1% HBCD Limit observed in any case if the total bromine content is < 0.2%.
GH013	PVC	10 % of which share in non-halogenated and fluorinated plastic waste at maximum 5 %; share in treated wood, at max. 1 %
B3020 and in this regard ANNEX IIIA mixtures	Paper, paperboard (uncoated)	10 % coated paper and cardboard wastes are considered contaminants. Of these max. 3% carbon paper and carbonless paper (waste on the AMBER LIST: AD090)
B3020, BEU04 (ANNEX IIIB)	Paper, paperboard (coated)	10 % in addition max 20% other paper waste. Of these max. 3% carbon paper and carbonless paper (waste on the AMBER LIST: AD090)
B3040, B3080 and in this regard ANNEX IIIA mixtures	Rubber	10 % Note: the code B3040 also includes shredded used tyres
B3050 and in this regard ANNEX IIIA mixtures from wood-cork	Wood, cork	1% chemically treated wood or cork
B1100	Aluminium skimmings without salt slag	40.5 % Minimum metal content No dangerous good pursuant to Class 4.3
B1100	Zinc skimmings	40.5 % Minimum metal content No dangerous good pursuant to Class 4.3

¹ For non-specific Green List waste types (Annexes III, IIIA and IIIB), the share in other wastes of the Green List must not exceed 10%. This impurity must not prevent the environmentally sound recovery of the concerned wastes. In Austria, a higher percentage of contamination with other Green List wastes is always subject to the duty of notification.

9.3.2. EXPLANATORY NOTES TO ANNEX IIIA

Annex IIIA includes specific defined waste mixtures on the Green List. These mixtures must not be classified into the Green List (procedure according to Article 18) if they are contaminated by other materials to an extent which

- increases the risks associated with the waste sufficiently to render them appropriate for submission to the procedure of prior written notification and consent when taking into account the hazardous characteristics, or
- prevents the environmentally sound recovery of the waste.

Waste in Annex IIIA may also be recovered in some non-OECD countries without notification (exception: mixtures containing waste with code GB 040). The relevant legislation is Regulation (EU) No 1418/2007, which lays down the control procedure required of the non-OECD countries. This regulation is regularly updated. The provisions of this Regulation, including amendments and updates, are contained in the ["Country List" of the Environment Agency at Dessau](#).

Those countries that have not yet answered the European Commission's request are subject to the procedure of prior written notification and consent.

ENTRIES IN ANNEX IIIA

General remarks:

The fundamental requirement for the classification of the aforementioned mixtures in Annex IIIA is that each individual constituent of the mixture itself does not constitute hazardous waste and that no other constituents, such as hazardous or non-hazardous waste or other materials, are added to the precisely defined mixture.

A mixture of hazardous waste with non-hazardous waste for the purpose of diluting pollutants is unacceptable in any case and automatically triggers a notification obligation for this waste mixture (unlisted waste).

NB: The absence of one or more constituents of a defined mixture does not, unlike the addition of other wastes, imply a change of classification, i.e. the waste remains classified in Annex IIIA unless the resulting waste is an individual fraction listed in Annex III to the EC Waste Shipment Regulation.

EXPLANATORY NOTES TO THE ENTRIES IN ANNEX IIIA

MIXTURES OF IRON AND/OR SPECIFIC NON-FERROUS METAL-CONTAINING WASTE

Explanatory notes to entries (a), (b), (d), (e) in section 2 and entry (a) in section 3 of Annex IIIA

Physical characteristics:

Re mixture (a) in section 2 (B1010 + B1050) and 3 (B1010 ferrous + some non-ferrous metals) in Annex III:
solid, non-dispersible

Re mixtures (b) (B1010 + B1070), (d) (GB040 + B1100), (e) (GB040 + B1070 + B1100) in section B:
solid, with dispersible constituents

Detailed description:

For more details, such as descriptions of the waste, designations, and European Waste Codes, please refer to the explanations on the individual entries which are contained in the aforementioned mixtures.

The level of non-metallic, non-hazardous impurities which must not interfere with the recovery process in the aforementioned mixtures must not exceed 10% (lowest quality) on the basis of scrap sort lists.

The proportion of waste incineration slag (Y47) must not exceed 5% (of the total contaminants of 10%).

Ban on exports of mixtures containing GB040 coded waste to non-OECD countries (see entries (d) and (e))

A ban is in force on shipments to non-OECD countries for waste mixtures containing waste under entry GB040, since the recovery of mixtures containing slag from precious-metal and copper production (code: GB040) requires advanced recovery technologies, which countries that are not subject to the OECD Decision are not guaranteed to apply.

Demarcation from other, similar Green List wastes:

- Mixed non-ferrous metals, heavy fraction (shredder scrap), not containing any of the substances listed in Annex I (Basel Convention) in such concentrations that they exhibit any of the characteristics listed in Annex III (Basel Convention) - see **B1050**

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Mixtures of scrap and other metal waste as specified in the above descriptions if the level of non-hazardous impurities, such as a shredder light fraction or plastics, exceeds 10% or they are contaminated with hazardous substances (e.g. asbestos, mineral oil, chlorophenol) or hazardous wastes (e.g. used oil, PCB, mercury) to an environmentally relevant degree, so as to trigger a hazardous property (see the limits in the List of Waste Ordinance) – **unlisted waste**
- Mixtures of waste not listed in Annex IIIA such as mixtures of B1010 + B1020 – **unlisted waste**

RUBBER WASTE MIXTURES

Explanatory notes for entry (c) in section 2 (mixture of B3040 + B3080) and (i) in section 3 (mixtures under B3040) of Annex IIIA

Physical characteristics: solid to powdery (rubber meal)

Detailed description:

For more details, such as descriptions of the waste, designations, and European Waste Codes, please refer to the explanations on the individual entries which are contained in the aforementioned mixtures.

The proportion of permitted contamination with other wastes on the Green List must not exceed 10%.

Demarcation from other, similar Green List wastes:

- Used tyres – see **B3140**
- Tyre shreddings, shredded used tyres – see **B3040** (however, classification as B3080 in other countries would also be accepted)

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Rubber waste used as a binder for hazardous liquids such as oils – **unlisted waste**
- Rubber-asbestos waste – see **A2050**
- Mixtures of plastic and rubber waste – **unlisted waste**
- Mixtures of rubber waste (B3040+B3080) with used tyres (B3140) – **unlisted waste**
- Mixtures of rubber waste/off-specification batches with hazardous characteristics, e.g. due to high PAH content – **unlisted waste**

PLASTIC WASTE MIXTURES

Explanatory notes to entries (d) (mixtures of non-halogenated polymers and copolymers under B3010), (e) (mixtures of cured resin waste or condensation products under B3010), (f) (mixtures under B3010 perfluoroalkoxy alkane) in section 3 of Annex IIIA

Detailed description:

For more details, such as descriptions of the waste, designations, and European Waste Codes, please refer to the explanations on the relevant entries which are contained in the aforementioned mixtures.

The proportion of permitted contamination with other wastes on the Green List must not exceed 10%, however, the proportion of PVC (entry: GH013) is limited to 5%.

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Mixtures of halogenated and non-halogenated plastics – **unlisted waste**
- Mixtures of fluorinated and chlorinated plastics (see separate entry for PVC: GH013) – **unlisted waste**
- Mixtures of cured resins and halogenated or non-halogenated plastics – **unlisted waste**
- Plastic mixtures with more than 10% contaminants (or more than 5% PVC) – **unlisted waste**
- Plastic mixtures from the treatment of WEEE that do not meet the requirements of item 80 "Waste plastics (non-halogenated)" – **unlisted waste**

DEFINED WASTE PAPER MIXTURES

Explanatory notes to entry (g) (mixtures of B3020 not including coated paper and unsorted scraps) in section 3 of Annex IIIA

Detailed description:

For classification in Annex IIIA, the waste paper mixture must not contain other waste paper, including but not limited to: 1. laminated paper (cardboard) and 2. unsorted scrap.

For more details, such as descriptions of the waste, designations, and European Waste Codes, please refer to the explanations on the relevant entries which are contained in the aforementioned mixtures.

The proportion of permitted contamination with other wastes on the Green List must not exceed 10%.

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Mixtures of paper waste containing laminated paper ("tetrabricks") or unsorted scraps – **unlisted waste**
- Mixtures of waste from composite materials (e.g. paper-aluminium-PE and paper-PE) – **unlisted waste**



Figure 12: Mixture of various composite material wastes - unlisted waste

Figure 13: Mixture of various composite material wastes - unlisted waste

WOOD AND CORK WASTE MIXTURES

Explanatory notes to entry (j) (mixtures under B3050) in section 3 of Annex IIIA

Detailed description:

For more details, such as descriptions of the waste, designations, and European Waste Codes, please refer to the explanations on the relevant entries which are contained in the aforementioned mixtures.

These do not in any case include mixtures of wood, bark and cork waste that have at any time been subjected to any form of processing other than pure mechanical processing.

In Austria, the limit for contaminants in untreated wood (including bark) or untreated cork waste with chemically treated wood (including bark) or cork waste is a mass proportion of 1%.

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Mixtures of untreated wood and cork waste containing treated wood (bark) and cork waste, contamination levels exceeding 1% – see AC170 (treated wood)



Figure 14: Rotten wood

9.3.3. EXPLANATORY NOTES TO ANNEX IIIB (GREEN LIST IN THE EU)

Pursuant to Commission Regulation (EU) No 135/2012, some wastes that have not yet been classified internationally are classified in Annex IIIB (Green List only for shipments within EU Member States) and assigned a specific code (see the text block "EU" in the code). Pursuant to Commission Regulation (EU) No 1234/2014 amending Annexes IIIB, V and VIII of Regulation (EC) No 1013/2006, the entries BEU01, BEU02 and BEU03 in Annex IIIB have been deleted. This is because in Annex V, Part 1 of the EC Waste Shipment Regulation, list B, those entries have been replaced with the entries B3026 and B3027 (implementation of the relevant decision under the Basel Convention amending Annex IX to the Basel Convention).

The explanatory notes to these two entries are now found in Annex III – see the Waste List for Chapter 9.3.1. in alphabetical order.

COMPOSITE PACKAGING (SEPARABLE)**Designation:****Green List IIIB: BEU04**

Composite packaging consisting of mainly paper and some plastic, not containing residues and not covered by Basel entry B3020

Physical characteristics: solid

EWL:

15 01 06 mixed packaging

Note: Combination of wastes in entries 15 01 01 and 15 01 02

03 03 99 wastes not otherwise specified (production and processing of cellulose, paper, cardboard and paperboard)

Detailed description:

These are wastes from combination packaging consisting of an external paper layer with a readily removed inner plastic packaging attached to the paper packaging along the edges. This entry does not cover kraft paper, which is already listed under B3020 (coated paper) as a Green List waste, and where the plastic element cannot be readily removed.

This packaging waste must not contain residues of hazardous substances (chemicals) that would justify classification as hazardous waste.

Composite packaging wastes are composed as follows: approx. 70%-95% paper and approx. 5%-30% plastic.

Note: in many EU Member States, laminated/coated paper waste ("tetrabricks") is classified under BEU040.

Demarcation from other Green List wastes:

- Laminated paper (e.g. waste from beverage cartons "tetrabricks") – see **B3020**
- Non-separable plastic fraction and non-separable plastic-aluminium fraction from pre-treatment of used composite packaging for liquids – see **B3026**

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Other mixtures of plastic and paper waste – **unlisted waste**
- Rejects from waste paper recovery – **unlisted waste**

BIODEGRADABLE WASTE**Designation:****Green List IIIB: BEU05**

Clean biodegradable waste from agriculture, horticulture, forestry, gardens, parks and cemeteries

Physical characteristics: solid (to sludgy)**EWL:**

20 02 01 biodegradable waste (garden and park waste, including cemetery waste)

02 01 03 plant-tissue waste (from agriculture, gardens, forests, ...)

Detailed description:

These are wastes that are mostly composted or otherwise biologically treated (e.g. in a biogas plant), such as:

- lawn clippings, grass clippings and foliage waste²⁶
- Fallen fruit, vegetable and cereal residues, cores, withered flowers
- Shrub cuttings, tree prunings
- Separately collected organic cemetery waste, if the cemetery demonstrably has a separate waste sorting system in place that adequately ensures the absence of contaminants such as floral wire, plastic components or plastic film.

NB: Waste from collection of biogenic waste (bio-containers) are typically excluded from the Green List (missed throws!).

Demarcation from other Amber Listed wastes or unlisted wastes (notification):

- Separately collected biogenic waste from households (bio-containers) or waste bulk containers in parks (missed throws) – **unlisted waste**
- Separately collected organic waste at cemeteries (biological waste collection) to the extent that absence of contaminants such as floral wire, plastic parts or films, etc. is not adequately ensured – **unlisted waste**
- Screen overflow from mechanical-biological systems – **unlisted waste**
- Biodegradable kitchen and canteen waste – **unlisted waste**



Figure 15: Foliage waste

²⁶ Note for the Austrian norm addressee in case of transboundary shipments for composting purposes: As defined in the Austrian Compost Ordinance, this must be limited to lightly contaminated grass clippings and foliage (not material collected along roads with heavy traffic, in any case not more than 8,000 motor vehicles per day, due to the associated heavy metal and PAH contamination)..

1. ACTIVATED CARBON

Designation:

Green List B2060

Spent activated carbon not containing any of the constituents listed in Annex I (Basel Convention) in such quantities that it exhibits any of the characteristics listed in Annex III (Basel Convention), e.g. activated carbon from drinking water purification, food processing and production of vitamins

Other designations:

filter carbon, filter substances made of activated carbon

Physical characteristics: solid

EWL:

15 02 03 absorbents, filter materials, wiping cloths, and protective clothing other than those mentioned in 15 02 02*

19 09 04 spent activated carbon

19 13 02 solid wastes from soil remediation other than those mentioned in 19 13 01*

Note: restricted exclusively to activated carbon

Designation in English:

Spent activated carbon not containing any Annex I (Basel Convention) constituents to an extent they exhibit Annex III (Basel Convention) characteristics, for example, carbon resulting from the treatment of potable water and processes of the food industry and vitamin production; activated charcoal-filter from treatment of potable water and processes of the food industry and vitamin production

Detailed description:

Spent activated carbon may come from uses in potable water treatment, food processing, and vitamin production, and must not contain any hazardous contamination. Analysis is required to determine whether it is non-hazardous.

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Spent activated carbon from processes of the organic and inorganic chemicals industry, the pharmaceuticals industry, sewage treatment, gas or exhaust gas purification, and similar applications that prevent the emission of hazardous substances into the environment (e.g. activated carbon from flue gas cleaning, from chemical processes, distilling plants, etc.) – see **A4160**
- Spent activated carbon from the treatment of potable water, food and vitamin production, and similar applications if contaminated with hazardous substances – see **A4160**
- Spent activated carbon from the treatment of sewage and landfill leachate, even if biologically purified prior to filtration using activated carbon (whitout analytical test results submitted that prove the non-hazardousness of the waste in accordance with the Austrian List of Waste Ordinance, as amended, a priori hazardous waste) – see **A4160**
- Naturally occurring organic material used as a filter medium (such as bio-filters) – see **AD150**
- Ion exchange resins – see **AD120**



Figure 16: Contaminated activated carbon from water purification – A4160

2. WASTE TYRES (RUBBER)

Designation:
Green List B3140

Waste pneumatic tyres, excluding those destined for Annex IV (Basel Convention), Section A (note: DISPOSAL) operations

Other designations:

tyre waste; scrap tyres; old or end-of-life tyres, old motor vehicle tyres, old motorcycle wheels, old bicycle tyres, solid rubber tyres

Physical characteristics: solid

EWL:

16 01 03 End-of-life tyres

Designation in English:

Waste pneumatic tyres, excluding those destined for Annex IVA (Basler Convention) operations

Detailed description:

This entry refers to end-of-life tyres without rims.

The supporting element of the tyre (the carcass) consists of several layers of solidly interconnected fabric made of textile threads (cotton, rayon, polyester, etc.) wound around a core of steel wire.

The old tyres must be intended either for material recovery (e.g. for the manufacture of rubber crumbs as a raw material for rubber mats, rubber wheels, retreading²⁷) or for energy recovery processes (e.g. energy recovery in industrial firing plants) or for sorting (including the sorting out of tyres that can be licensed for road use in Austria). Incineration of end-of-life tyres in a waste incineration plant intended for the processing of municipal solid waste should be considered as energy recovery if the specified energy efficiency coefficients (EC Waste Framework Directive, No 98/2008) are observed.

This includes, in particular:

- Motor vehicle tyres without rims
- Doubled/tripled/quadrupled tyres: In packets with several tyres one inside the other, current insights suggest that it should always be assumed that the tyres are not damage-free and therefore constitute waste.

NB: Exports of doubled and tripled tyres as non-waste is permitted only if the tyre dealer ensures exclusively by means of a mechanical procedure (i.e. a less damaging procedure than a non-professional manual procedure) that only usable, undamaged car tyres with a tread depth of at least 1.6 mm are fit into each other, without damage to the tyre bead and taking account of the tyre dimensions. There must have been a demonstrable pre-sorting of tyres, or confirmations from the waste tyre suppliers must be provided to the effect that only pre-sorted, undamaged tyres with the required depth of tread have been supplied. The presence of a quality management system must be demonstrated.

- bicycle tyres
- solid rubber tyres

Note: In the case of summer tyres older than 10 years and winter tyres older than six years there is a high probability that these tyres have been discarded and constitute wastes (pay attention to cracks!). It should be noted that even used tyres which still have the required minimum depth of tread for further use in Austria, but which are destined for a recovery operation (e.g. retreading), have to be classified as waste.

²⁷ Retreading: Here, the old tread of a worn tyre is mechanically abraded (or peeled off with blades), and a new tread is applied and then vulcanised.

Waste tyres are therefore classified as waste if transported in a manner in which damage can be assumed (e.g. three manually inserted into each other - tripled) or if they are below the minimum tread depth required in Austria. This is measured in the centre of the tread considering about three-quarters of the tread area. If wear is irregular, the tread depth must be measured at the point with most wear in accordance with the law.

Limit values for Austria:

Tread depth in passenger cars (< 3.5 t total weight)

- Summer tyres: at least 1.6 mm
- Winter tyres (diagonal design): at least 5 mm
- Winter tyres (radial design): at least 4 mm
- In case of spikes: at least 4 mm

Tread depth for trucks, buses, trailers, semi-trailers, hazardous goods transporters (> 3.5 t total weight)

- Summer tyres: 2.0 mm
- Winter tyres: Diagonal: 6.0 mm / radial 5.0 mm

Motorcycles: At least 1.6 mm

Mopeds: At least 1 mm

NB: Winter tyres can be used as summer tyres up to a tread depth of 2 mm in accordance with the law.

The date of manufacture of the tyre can be taken from the four-digit DOT Number (DOT = Department of Transport) stamped into the sidewall of the tyre. The first two digits indicate the calendar week (CW) and the third shows the final digit of the year of manufacture. From the year 2000 onwards, the DOT number has four digits.

A tyre with the DOT number 4801 was manufactured in week 48 of 2001.

NB: Waste tyres - retreading

Tyres and profiles manufactured for retreads after 1 January 2010 must not be placed on the market if they contain extender oils that exceed the limits stipulated in EC Directive No 2005/69 (> 1 mg BaP (benzo-a-pyrene) per kg or total content for all listed PAHs > 10 mg/kg). Retreaded tyres may be distributed if the tread contains no extender oils that exceed the specified limits.



Figure 17: End-of-life tyres without the required tread depth

Figure 18: Manually tripled tyres

Demarcation from similar Green List wastes:

- Rubber waste (including hard rubber and similar) – see **B3040**
- Waste parings and scraps of rubber (e.g. shredded tyres) – see **B3040**
- Rubber crumbs or buffing dust (i.e. powder produced when buffing the tread, to the extent that it does not meet the specifications and is not subject to quality control) – see **B3040**
- Synthetic rubber waste – see **B3040**
- Mixtures of waste classified under Basel entry B3040 (rubber waste) – see **section 3i) in Annex IIIA**
- Mixtures of waste of entry B3040 + B3080 – see **section 2c) in Annex IIIA**

NB: The use of end-of-life tyres or tyre parings as covering material for sludge ponds, landfills, etc. is not considered to be a recovery operation (rather, it is considered to be disposal, so notification is required).

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Old tyre rubber crumbs which were used as absorbents, for example, and are contaminated with hazardous substances – **unlisted waste** or listing by contaminants on list A (Amber Waste List)
- Whole used tyres with rims – **unlisted waste**

3. ALUMINIUM SKIMMINGS

Designation:

Green List B1100

Metal-bearing wastes arising from melting, smelting or refining: Aluminium skimmings (or skims) excluding salt slag

Other designations:

Aluminium skims(Al), aluminium skimmings except salt slag; aluminium skims; high-metal aluminium skimmings

Physical characteristics: solid

EWL:

10 03 16 skimmings other than those mentioned in 10 03 15* (thermal aluminium metallurgy)

Designation in English:

Aluminium skimmings or aluminium skims excluding salt slag

Detailed description:

- Aluminium skimmings, insofar as they have no hazardous characteristics and contain at least 45% metallic aluminium (permissible analysis results obtained from single inspections: 40.5%).

NB: Black aluminium dross from secondary melting (thermal aluminium metallurgy) and aluminium skimmings/dross which are flammable or which, when in contact with water, release flammable gases in hazardous quantities, are classified as hazardous waste on the European Waste List. Relevant hazardous properties include the emission of flammable gases in contact with water (limit value for hazard characteristic H4.3 pursuant to Basel Convention or dangerous goods class 4.3: release of more than 1 liter of hydrogen/kg/h) or flammable characteristics.

Aluminium skimmings/dross with a metallic aluminium content of over 40.5% typically do not exhibit hazard characteristic H4.3 as per the Basel Convention.

The aluminium skimmings/dross must have a metallic aluminium content of at least 40.5% to still qualify as Green List waste, unless they fulfil hazardous property H4.3 pursuant to the Basel Convention.

However, skimmings with this minimum aluminium content of 40.5% that fulfil hazardous property H4.3 pursuant to the Basel Convention, or dangerous goods class 4.3, always constitute waste subject to notification.



Figure 19: Aluminium skimmings

Figure 20: Aluminium skimmings with 75% metallic aluminium

Demarcation from similar Green List wastes:

- Waste hydrates of aluminium (= aluminium hydroxide) and waste alumina and residues from alumina production, excluding materials that were used for gas purification or flocculation and filtration processes – see **B2100**
- Alumina abrasives (unless contaminated with hazardous pollutants) – see **B2040** Carborundum (also covers alumina)
- Mixtures of waste classified under OECD entry GB040 (slag from precious metals and copper processing) and under Basel entry B1100 (metal-bearing waste arising from melting, smelting, and refining of metals), restricted to: hard zinc spelter, zinc-bearing top dross, aluminium surface skimmings (or skims), except salt slag, waste from fire-resistant linings, including melting pots from the smelting of copper – see **section 2d) in Annex IIIA**

Note: Exports of this mixture to countries to which the OECD Decision does not apply are not permitted.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Aluminium skims and skimmings/dross fulfilling the criteria for classification as highly flammable or emission of flammable gases pursuant to the List of Waste Ordinance, or whose metallic aluminium content is less than 40.5% by mass – **unlisted waste**
- Ball mill dust – **unlisted waste**
- Fly dust, filter dust – see **A4100**
- Waste hydrates of aluminium, alumina, and residues from alumina production that were used for gas purification or flocculation and filtration processes or other contaminated waste hydrates of aluminium or alumina – **unlisted waste**
- Aluminium salt slag – **unlisted waste**



Figure 21: Aluminium skimmings (hazardous characteristic H4.3) – unlisted waste

Figure 22: Aluminium salt slag – unlisted waste

4. ALUMINIUM OXIDE/HYDROXIDE

Designation:

Green List B2100

Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

Other designations:

Aluminium hydroxide waste ($\text{Al}(\text{OH})_3$), alumina waste (Al_2O_3)

Physical characteristics: solid

EWL:

06 03 16 metal oxides other than those mentioned in 06 03 15*

10 03 05 waste alumina

10 03 22 other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21*

11 01 10 sludges and filter cakes other than those mentioned in 11 01 09*

19 02 06 sludges from physico/chemical treatment other than those mentioned in 19 02 05*

Designation in English:

Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

Detailed description:

These are alumina and hydrates of aluminium (=hydroxide) and waste alumina and residues from alumina production, excluding materials that were used for gas purification or flocculation and filtration processes, since they must be presumed to be contaminated.

Alumina from wet processing of aluminium dross may be subsumed under this entry (e.g. in case of more than 80% alumina, remainder predominantly SiO_2 , MgO , iron oxides), if these wastes do not exhibit hazardous characteristics, especially Basel criterion H4.3, and are destined for instance for material recovery in the cement industry.

Where appropriate in special cases, ball mill dust suitable for recovery (limit: chlorine content) may be classified as Green List waste if it demonstrably does not fulfil any hazardous property, specifically not H4.3 as per the Basel Convention.

Demarcation from similar Green List wastes:

- Bauxite residues (red mud) (after pH value adjustment to below 11.5) – see **B2110**
- Catalysts on alumina basis (zeolites), to the extent not contaminated – see **GC050**
- Aluminium skimmings (skims) without hazardous properties (metallic aluminium content at least 40.5%) – see **B1100**
- Carborundum (including aluminas) – see **B2040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Skimmings rich in alumina (with little metallic aluminium, aluminium content below the reference value 40.5%), or aluminium skimmings or skims with hazardous characteristics (e.g. H4.3 pursuant to Basel Convention or HP3 pursuant to the List of Waste Ordinance and EU waste legislation) – **unlisted waste**
- Alumina-bearing filtration dust and fly ash from the cleaning of industrial off-gases – see **A4100**
- Aluminium hydroxides and oxides that were used for gas cleaning, or flocculation and filtration processes, or alumina and hydrates of aluminium (=hydroxide) contaminated by other processes – **unlisted waste** or listing by contaminant on list A (Amber Waste List)
- Aluminium salt slag – **unlisted waste**
- Ball mill dust from the processing of skimmings/dross with hazardous characteristics – **unlisted waste**

5. ALUMINIUM SCAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Aluminium scrap

Other designations:

Wastes and scrap of aluminium (Al) or aluminium; aluminium sheet, aluminium profiles, turnings, millings and filings, aluminium alloy scrap

Physical characteristics: solid, in metallic non-dispersible form

Note: dispersible oxide residues are permissible

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 17 04 02 aluminium
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Waste and scrap of aluminium, aluminium scrap, aluminium alloys, aluminium chipping, turnings, drillings

Detailed description:

The following wastes, to the extent not mixed with hazardous waste or substances:

- Wire and sheet scrap, rolled aluminium, household scrap/household pots and pans
- Aluminium, free from shredder waste
- Beverage cans, steel-free and free from bottle caps, rubbish and lead, sorted
- Aluminium lithograph plates (without ink)
- Aluminium foil, free from tinsel or anti-radar foil
- Aluminium alloy scrap and aluminium cylinder
- Aluminium parts of end-of-life cars or airplanes
- Cast aluminium scrap, shavings (without hazardous characteristics)
- Aluminium-copper radiators, if drained and cleaned
- Die-cast aluminium grates and stairs, that accumulate homogeneously
- Aluminium window waste (without glass parts) and parts thereof, if it is guaranteed that any attached insulation foam is free of CFCs and does not contain any persistent organic pollutants (waste from current production is free of CFCs and prohibited POPs)
- Aluminium motors (internal combustion engines); a small iron share normally should not impair the recovery operation
- Aluminium spouts (= metallic aluminium, which after draining of the dross from the Aluminium-dross mixture, is poured out and contains a high metal content and low contents of oxidic dross)
- Waste from carbon/aluminium profiles (aluminium graphite, ALG for short)

Non-ferrous metal scrap with a non-hazardous, non-metal contaminant content exceeding 10% is subject to Federal Ministry of Agriculture, Forestry, Environment and Water Management notification and consent for transboundary shipment.

NB: Fractions with high oil content of drilling chips, turnings and filings, due to their contamination with hydrocarbons, constitute hazardous waste and are therefore subject to notification in Austria (see limit value for petroleum-derived hydrocarbons in accordance with List of Waste Ordinance, as amended).

The limit for hydrocarbons for fulfilment of a hazardous waste property is not harmonised internationally; Article 28 of the EC Waste Shipment Regulation must be observed – the more stringent classification takes precedence in the case of divergent requirements in the country of dispatch and country of destination.

Aluminium packaging, free of residues and free of substances and mixtures that must, under chemicals legislation, be labelled with a "skull and crossbones – GHS06" symbol, the "health hazard – GHS08" symbol, or the "exploding bomb – GHS01" hazard symbol, constitutes hazardous waste subject to notification and in no event can be classified as waste on the Green List.

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



Spigot barrels, free of residues, which contained oils or other hazardous viscous substances, constitute hazardous waste due to their residual contamination (incomplete emptying), classified in entry A4130 (Amber Waste List) (notification requirement).

Pressurised gas containers, free of residues and no longer under pressure, with flammable propellants are also hazardous wastes subject to notification.

Demarcation from similar Green List wastes:

- Alumina (Al_2O_3) and aluminium hydrates (=hydroxide) and residues from alumina production, excluding materials that were used for gas purification or flocculation and filtration processes - see **B2100**
- Catalysts on alumina basis (zeolites), to the extent not contaminated - see **GC050**
- Aluminium engine blocks after oil drainage - see also **GC010**
- Light-alloy skimmings, aluminium-bearing (without hazardous properties; minimum metallic aluminium content 40.5%) – see **B1100**
- Mixtures of wastes in entries B1010+B1050 – see **section 2a) of Annex IIIA**
- Mixtures of waste in entries B1010+B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes in entry B1010 – see **section 3a) of Annex IIIA**



Figure 23: Aluminium profile waste

Figure 24: Aluminium shavings

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Figure 25: Aluminium scrap

Figure 26: Aluminium capsule seals



Figure 27: Aluminium beverage cans

Figure 28: Pressed aluminium packaging

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Full or partly emptied packages (e.g. aluminium packaging containing mineral oil) – see **A4130**
- Aluminium packaging, free of residues and free of substances and mixtures that must, under chemicals legislation, be labelled with a "skull and crossbones – GHS06" symbol, the "health hazard – GHS08" symbol, or the "exploding bomb – GHS01" hazard symbol; also spigot barrels, free of residues, that contained oils or other hazardous viscous substances (incomplete emptying) – see **A4130**
- Pressurised gas containers, free of residues and no longer under pressure, with flammable propellants – see **A4130**
- Aluminium skimmings with hazardous characteristics – **unlisted waste**
- Aluminium salt slag – **unlisted waste**
- Ball mill dust from the processing of skimmings/dross – **unlisted waste**
- Alumina and aluminium hydrates (=hydroxide), contaminated – **unlisted waste**
- Fly ash and dust from cleaning of industrial exhaust gases that contain aluminium – see **A4100**
- Catalysts based on alumina, to the extent contaminated – see **A2030**
- Aluminium coffee capsules (residues: approximately 80 - 90% coffee and water, 10% aluminium) – **unlisted waste** (mixture)



Figure 29: Aluminium skimmings (Basel hazardous property H4.3) – unlisted waste

Figure 30: Aluminium salt slag – unlisted waste



Figure 31: Fine aluminium shavings (20% of the fraction is below 100 μm) – unlisted waste

Figure 32: Aluminium caps with glass scrap from fluorescent tubes – unlisted waste

6. ANODE SCRAP (STEEL/ALUMINIUM PRODUCTION)

Designation:

Green List B2090

Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor-alkali electrolysis and from the metallurgical industry)

Other designations:

petroleum coke anodes; bitumen anodes; anode scrap from the steel and aluminium industry; anode coke waste

Physical characteristics: solid

EWL:

10 03 02 anode scraps (aluminium industry)

10 03 18 carbon-bearing wastes from anode manufacture other than those mentioned in 10 03 17*

10 02 99 wastes not otherwise specified

Designation in English:

Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor-alkali electrolyses and from metallurgical industry)

Detailed description:

Special types of coke are used to produce Söderberg electrodes (unburned electrodes) and block anodes for electrodes used in electro-metallurgy (aluminium, magnesium, stainless steel, etc.).

Only cleaned, spent electrodes from the aluminium or steel industry are classifiable under the Green List.

NB: Petroleum coke that is produced intentionally or originates from the simultaneous production of other combustible petroleum derivatives in a petroleum refinery and is definitely intended for use as a fuel for the energy needs of the refinery and other industrial operators, does not constitute waste as defined by the EU Directive on waste (see ECJ ruling C-235/02 of 15.01.2004).

Demarcation from similar Green List wastes:

- Natural graphite waste (mining waste in non-dispersible form) – see **B2010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Uncleaned used electrodes from the aluminium industry (fluoride content) – see **AB120**
- Anodes from chlorine-alkali electrolysis – see **A4110** (based on their dioxin content)
- Used crucible linings from aluminium smelting (cyanide-bearing) – see **A4050**
- Anodes with other hazardous contaminants as fluorine compounds – **unlisted waste** or classification by the respective contaminant on list A (Amber Waste List)
- Residues from the production/processing of petroleum coke and bitumen from mineral oil as well as coke-like residue from maintenance procedures at refineries and pyrolytic treatment of organic materials – see **A3190**
- Carbon and graphite residues (other than mining waste) – **unlisted waste**

7. ANTIMONY SCRAP (BULK)

Designation:

Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):
Antimony scrap

Other designations:

Waste and scrap of antimony (Sb), lead-antimony alloys: hard lead, lead type, babbitt metal; tin-antimony alloys: Britannia metal, babbitt metal; lead-antimony solder waste in metallic form

Physical characteristics: solid, lumpy (in metallic non-dispersible form)

EWL:

- 12 01 03 non-ferrous metal filings and turnings
- 15 01 04 metallic packaging
- 16 01 18 non-ferrous metal
- 17 04 03 lead
note: classification in the case of an alloy with lead
- 19 10 02 non-ferrous waste
- 19 12 03 non-ferrous metal
- 20 01 40 metals

Designation in English:

Antimony scrap; waste and scrap of antimony

Detailed description:

- Antimony and antimony alloy scrap (e.g. antimony-lead)

Alloys:

- Lead-antimony alloys: hard lead, lead type, babbitt metal
- Tin-antimony alloys: Britannia metal, babbitt metal
- Lead-antimony solder waste (the lead-oxide compound content may be max. 0.3%, the antimony compound content max. 1.0%)

Non-ferrous metal scrap with a non-hazardous, non-metal contaminant content exceeding 10% is subject to Federal Ministry of Agriculture, Forestry, Environment and Water Management notification and consent for transboundary shipment.

Demarcation from similar Green List wastes:

- Antimony alloys should be classified according to the main alloy component (e.g. antimony- copper) – see **B1010**, or lead-antimony alloys – see **B1020**
- Mixtures of waste in entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of waste in entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes in entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Antimony compounds (salts, etc.) that accumulate in the form of chemicals – see **A4140**, otherwise see **A1020**
- Non-bulk antimony scrap or dispersible metal waste that contains antimony, such as antimony-bearing ash, sludge and dust – see **A1020**
- Solder waste with high oxide content that triggers a hazardous property – see **A1020**
- Antimony-bearing galvanic sludge – see **A1050**
- Antimony-bearing filtration dust and ash – see **A4100**
- Waste of antimony-bearing pigments – see **A4070**
- Lead-antimony alloys from batteries and lead-acid batteries – see **A1160** and as a mixture of lead-acid batteries with other batteries – see **A1170**
- Electrodes from lead-acid batteries – see **A1010** or **A1020**
- Mixtures of waste in entries B1020 + B1010 and/or 1050 and/or with other metals and intermixed waste in entry B1020 – see **A1020**

8. ASPHALT WASTE (FREE FROM TAR)

Designation:
Green List B2130

Bituminous material (waste asphalt) from road construction and road maintenance which does not contain tar (note the related entry on list A, A3200)

Other designations:

road rubble (free from tar)

Physical characteristics: solid

EWL:

17 03 02 bituminous mixtures other than those mentioned in 17 03 01*

Designation in English:

Bituminous material (asphalt waste) from road construction and maintenance, not containing tar (note the related entry on list A, A3200)

Detailed description:

Asphalts are mixtures of bitumen or bitumen-bearing binders and mineral substances, as well as other additives or supplements.

Tar residues from coking were previously used similarly to bitumen. Such tars contain carcinogenic polycyclic aromatic hydrocarbons (PAHs) and cannot be categorised as Green List waste. It should be noted that recycling (e.g. joint melting of asphalt and tar-bearing road paving) may also cause asphalt to be PAH- contaminated and therefore not classifiable in the Green Waste List.

The Green Waste List only contains tar-free asphalt wastes (the content of the primary substance benzo-a-pyrene must not exceed 50 mg/kg dry mass (= 50 ppm), and the PAH content (16 PAH as per EPA) must not exceed 300 mg/kg dry mass); see also the requirements of ÖNORM B 3580-1 – Rules for the implementation of EN 13108-1. Analysis (especially of the PAH content) is required to determine whether it is non-hazardous.

Note: more stringent national PAH limits in the country of destination should always be observed (e.g. Germany, Lower Saxony: PAH content < 25 mg/kg (EPA) is considered tar-free). The relevant details are available on the [web-site of the Lower Saxony Special Waste Deposit Company](#).

With regard to environmentally sound recycling in Austria, reference is made to the provisions of the Austrian Recycled Construction Materials Ordinance, Federal Law Gazette II no. 181/2015, as amended.



Figure 33: Asphalt waste (tar-free)

Demarcation from similar Green List wastes:

- Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor-alkali electrolysis and from the metallurgical industry) – see **B2090**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tar-bearing asphalt in which the content of the primary substance benzo-a-pyrene exceeds 50 mg/kg dry mass (=50 ppm), or the PAH content (16 PAH as per EPA) exceeds 300 mg/kg dry mass, also constitutes hazardous waste – see **A3200**
- Tar residues from the refinement, distillation or pyrolysis of organic materials – see **A3190**
- Bitumen roofing felt (e.g. bitumen-aluminium felt) – **unlisted waste**
- Tar roofing paper (very high PAH contamination) – **unlisted waste**
- Tar-free roofing paper – **unlisted waste**
- Asbestos-bearing demolition asphalt (with asbestos-bearing filler or additive) – see **A2050**



Figure 34: Tar roofing paper – unlisted waste



Figure 35: Tar-free roofing paper – unlisted waste

9. BATTERIES

Designation:
Green List B1090

Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

Notification is required in Austria for all types of batteries!

The Green List entry "Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury" should not be used for shipments from or to Austria, particularly since current insights indicate that all battery types found on the market exhibit at least one hazardous property (e.g. nickel compounds, organic solvents, acids or alkalines in electrolytes) even if they do not contain (significant) amounts of lead, cadmium or mercury.

In the Austrian List of Waste Ordinance – contrary to the European Waste List - all types of batteries are classified as hazardous waste which cannot be de-classified as non-hazardous waste.

Pursuant to Article 3(3) of the EC Waste Shipment Regulation, wastes assigned to the Green List shall be subject to the control procedure of the Amber List if these wastes exhibit hazardous characteristics.

Therefore the shipment of all waste batteries requires a notification procedure.

This fact has been notified to the European Commission pursuant to Article 3(3) of the EC Waste Shipment Regulation (ref. BMLFUW-UW.2.1.7/0039-VI/2/2007 – Request to place all batteries on the Amber List).

A renewed evaluation of this classification will be undertaken by the European Commission in the relevant committees for the Batteries Directive.

Other designations:

waste batteries; battery scrap; sorted waste batteries; alkali-manganese, zinc-carbon, nickel-metal hydride; lithium battery waste; sodium-nickel-chloride batteries (= ZEBRA batteries); old nickel-iron accumulators, mixed waste batteries

Physical characteristics: solid

EWL:

- 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*
- 16 06 04 alkaline batteries (except 16 06 03*)
- 16 06 05 other batteries and accumulators
- 20 01 34 batteries and accumulators other than those mentioned in 20 01 33*

Designation in English:

Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

Detailed description:

NB: All types of batteries and accumulators should be classified as hazardous waste because of their electrolytes so that notification is required.

For transboundary shipments of batteries from or to Austria, only entry A1170 should be applied.

Demarcation from similar Green List wastes:

There are no relevant similar entries on the Green List.

NB: Entry B4030 on the Green List (single-use cameras with batteries not included on list A) is not applicable – see **A1180**.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- All battery waste not including lead-acid batteries – see A1170
- Waste from lead-acid batteries, whole or crushed – see A1160
- Used single-use cameras with all types of batteries – see A1180 (possibly unlisted waste)



Figure 36: Mixed battery waste – A1170



Figure 37: Unsorted batteries – A1170



Figure 38: Lithium cells – A1170



Figure 39: Lead-acid batteries – A1160



Figure 40: Lithium batteries – A1170



Figure 41: Nickel-metal hydride batteries – A1170

10. BAUXITE RESIDUES

Designation:

Bauxite residues (red mud) (pH moderated to less than < 11.5)

Green List B 2110

Other designations:

Red mud from alumina production

Physical characteristics: solid- sludge-like

EWL:

01 03 09 red mud from alumina production other than wastes mentioned in 01 03 10*

Designation in English:

Bauxite residue ("red mud") (pH moderated to less than 11.5)

Detailed description:

Red mud is a waste of aluminium production and can be classified on the Green List if the pH is below 11.5 and provided that it has not been contaminated with hazardous substances (such as chromium, mercury or arsenic) or contains such substances in concentrations that trigger a hazardous property.

The characteristic red colour comes from iron (III) oxide. Such waste is used as raw material for ceramics, for example.



Figure 42: Red mud without hazardous characteristics pH value < 11.5

Demarcation from similar Green List wastes:

- Waste hydrates and oxides of aluminium and residues from alumina production (uncontaminated), excluding materials that were used for gas cleaning or flocculation and filtration processes – see **B2100**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Red mud without sufficient reduction of the pH (i.e. pH > 11.5) – **unlisted waste**
- Red mud from alumina production with or without sufficient reduction of the pH, to the extent containing hazardous substances (EWL 01 03 10*) – **unlisted waste**

11. MINING WASTE (MINERAL)

Designation:

Green List B2010

Wastes from mining operations non-dispersible form: Natural graphite waste, slate waste, mica waste, leucite, nepheline and nepheline syenite waste, feldspar waste, fluorspar waste, silicon dioxide in solid form (silica, quartz sand) excluding wastes used in foundry operations

Other designations:

wastes from mineral excavation

Physical characteristics: solid, in non-dispersible form

EWL:

- 01 01 01 wastes from mineral metalliferous excavation
- 01 01 02 wastes from mineral non-metalliferous excavation
- 01 03 06 tailings other than those mentioned in 01 03 04* and 01 03 05*
- 01 04 08 waste gravel and crushed rocks other than those mentioned in 01 04 07*
- 01 04 09 waste sand and clays
note: Green List waste restricted to sand
- 01 04 12 tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07* and 01 04 11*

Designation in English:

Wastes from mining operations in non-dispersible form: natural graphite waste, slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise, mica waste, leucite, nepheline and nepheline syenite waste, feldspar waste, fluorspar waste, silica wastes in solid form, excluding those used in foundry operations.

Detailed description:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed ore merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica wastes in solid form (pure quartz sand waste) excluding those used in foundry operations

Demarcation from similar Green List wastes:

- Calcium fluoride sludge – see **B2070**
- Bauxite residues (red mud) (pH moderated to less than < 11.5) – see **B2110**
- Recyclable mixtures of waste in Basel entry B2010 – see **section 3b) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Sands used in foundry operations (foundry sand, core sand) – see **AB070**
- Quartz sand, graphite waste, slate waste, mica, leucite waste, nepheline and nepheline syenite, feldspar waste, fluorspar waste with hazardous contaminants – **unlisted waste** or classification by contaminant on list A (Amber Waste List)
- Used blasting grit, in which case contamination is to be assumed a priori – see **AB130**
- Contaminated or non-contaminated excavated soil, excavated materials, humus (part of the overall organic soil mass), landfill excavations, hazardous waste from abandoned contaminated sites, building or fire debris – **unlisted waste**

GUIDELINES FOR THE SHIPMENT OF WASTE

- Tunnel debris, drilling sludge, other waste from mining operations in dispersible form (such as sludge, dust, etc.) – **unlisted waste**
- Cyanide-bearing mining waste – see **A4050**
- Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B (Green Waste List) – see **A2020**
- Sand as excavated soil or mixed with demolition waste, etc. – **unlisted waste**



Figure 43: Excavated soil – unlisted waste

Figure 44: Tar-contaminated soil – unlisted waste

12. BERYLLIUM SCRAP (BULK)

Designation:
Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):
Beryllium scrap

Other designations:

waste and scrap of beryllium (Be)

Physical characteristics: solid, lumpy, in bulk (non-dispersible) form

EWL:

12 01 03 non-ferrous metal filings and turnings
16 01 18 non-ferrous metal
19 10 02 non-ferrous waste
19 12 03 non-ferrous metal
20 01 40 metals

Designation in English:

Beryllium scrap; waste and scrap of Beryllium

Detailed description:

- Metallic beryllium scrap and waste of beryllium-bearing alloys in bulk finished form

Non-ferrous metal scrap with a non-hazardous, non-metal contaminant content exceeding 10% is subject to Federal Ministry of Agriculture, Forestry, Environment and Water Management notification and consent for transboundary shipment.

Demarcation from similar Green List wastes:

- Beryllium alloy waste should be classified according to the main alloy component (e.g. beryllium bronze 90% and more copper) – see **B1010**
- Mixtures of waste in entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of waste in entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes in entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Beryllium and beryllium-oxide waste in non-bulk or dispersible form (e.g. beryllium powder and dust or beryllium-bearing ash, sludge) – see **A1010** and **A1020**
- Beryllium-bearing filtration dust – see **A4100**
- Scrap electronics that contain beryllium-bearing parts (specific labelling of such parts) – see **A1180**
- Mixtures of waste in entries B1020 + B1010 and/or 1050 and/or with other metals and intermixed waste in entry B1020 – see **A1020**

NB: Beryllium and its compounds are classified as carcinogenic (the limit value for beryllium compounds is 0.1% max.). Beryllium scrap should therefore contain practically no oxidic or dispersible content. Beryllium-bearing vapours and aerosols (dust) are harmful to the lungs.

13. BROKEN CONCRETE

Designation:

Green List B2040

Other wastes containing principally inorganic constituents: Broken concrete

Other designations:

waste concrete; concrete fragments

Physical characteristics: solid

EWL:

10 13 14 waste concrete and concrete sludge

17 01 01 concrete

Designation in English:

Broken concrete

Detailed description:

- Concrete fragments, concrete demolition waste, concrete rubble
- Wastes of pre-cast concrete blocks (e.g. cast stone, concrete roofing tiles, terrace surfaces, coloured natural stone)
- Waste from cement-bound wood-chip concrete (e.g. Heraklith®), which consist only of wood and a mineral binder (without multilayer boards with expanded polystyrene or mineral fibres)
- Waste from new production of fibre concrete (pure waste from EU production that is demonstrably asbestos-free!)
- Reinforced concrete (concrete with steel inserts/reinforcements)

Reference is made to the requirements of the Recycled Construction Materials Ordinance, Federal Law Gazette II no. 181/2015, as amended, for recycling undertaken in Austria.



Figure 45: Concrete demolition waste

Demarcation from similar Green List wastes:

- Bricks, tiles, roofing tiles, clinkers, glazed bricks – see **GF010**
- Plasterboard waste – see **B2040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Untreated demolition material or mixed building waste, or building waste mixed with construction site waste (plastics, wood, etc.) or building waste mixed with excavated soil – **unlisted waste**
- Synthetic mineral fibres from demolition materials with asbestos-like characteristics (carcinogenic characteristics should a priori be assumed unless demonstrated otherwise by testing) – **RB020** or building waste with synthetic mineral fibres – **unlisted waste** or **RB020**, depending on the proportion of such fibres
- Construction waste and fire debris with hazardous contaminants – **unlisted waste**
- Asbestos-contaminated concrete waste, asbestos cement or asbestos cement slabs (Eternit®), sprayed asbestos, soft asbestos – see **A2050**
- Waste from cement-bound wood-chip concrete (e.g. Heraklith®), which contain other substances in addition to wood and mineral binding agents, such as expanded polystyrene or multilayer boards, or mixtures of different types of cement-bound wood-chip concrete panels – **unlisted waste**
- Insulation waste from renewable raw materials which, due to their biocide or flame retardant content (e.g. boron compounds (toxic for reproduction H360, category 1B) from 0.3%) should be classified as hazardous – **unlisted waste**
- Hazardous waste that was solidified with concrete – **unlisted waste** or listed by contaminant on list A (Amber Waste List)
- Excavated soil or ground excavation (whether or not contaminated) – **unlisted waste**
- Excavated tunnel debris (whether or not contaminated) – **unlisted waste**
- Track ballast (whether or not contaminated) – **unlisted waste**
- Excavated gravel and ballast (whether or not contaminated) – **unlisted waste** (pure gravel from gravel plant – product)
- Sand (contaminated or mixed with excavated soil, etc.) – **unlisted waste**
- Soil sludge, sand sludge, excavations from slotted walls, drilling mud - **unlisted waste**
- Used sand blasting agents – see **AB130**
- Dredgings from wet dredging – **unlisted waste**
- Construction site waste (= not building waste but waste similar to household waste consisting of paper, plastic, treated used wood, low mineral content, etc.) – see **Y46** "Household waste", or **possibly unlisted**.



Figure 46: Mixed building waste – unlisted waste

Figure 47: Mixed building waste with asbestos cement – A2050



Figure 48: Mixed building waste – unlisted waste

Figure 49: Mixed building waste with synthetic mineral fibres – A2050



Figure 50: Construction site waste – Y46

Figure 51: Broken asbestos cement – A2050

14. BISMUTH SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Bismuth scrap

Other designations:

Bismuth scrap (Bi), wastes and scrap, shavings of bismuth; Bismanol (magnetic alloy with manganese)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Bismut scrap; waste and scrap of Bismut

Detailed description:

- Alloys with a low melting point (Wood's metal: melting point 60°C; Rose metal: melting point 94°C)
- The alloy Bismanol with manganese is a strong permanent magnet.

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Bismuth-containing filtration dust from copper production is the main source of bismuth recovery – see **A1100**
- Bismuth-containing fly ash, filtration dust from lead production, etc. are also main sources for bismuth production – see **A4100**

15. LEAD SCRAP (BULK)

Designation:

Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.); Lead scrap (except lead-acid battery scrap)

Other designations:

Waste and scrap of lead (Pb), lead solder/tin solder, type metal, Pb scrap, Pb waste (metallic)

Physical characteristics: lumpy, solid, in metallic (non-dispersible) form

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 17 04 03 lead
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Lead scrap, waste and scrap of lead

Detailed description:

- Lead pipes, cast parts, tubes (pure), foils, sheets
- Production of spoiled castings of lead grids
- Lead alloys (lead solder, tin-lead alloys)
- Type metal
- Metallic soldering tin (more lead than tin in the alloy) with lead oxide adhesions of max. 0.3%)– toxic to reproduction

Note: Slight contamination with lead oxide or lead compounds is permissible (cf. lead compounds from 0.3% – toxic to reproduction).

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.



Figure S2: Lead scrap

Figure S3: Lead scrap

Demarcation from similar Green List wastes:

There are no other lead-bearing wastes specified on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Lead-acid batteries, whole or crushed; electrodes (lead grids) of lead acid batteries (even if the electrodes had been cleaned, as the permanent lower deviation from the limit value of 0.3% (toxic to reproduction) for lead sulphate and lead oxide cannot be guaranteed) – see **A1160**
- Lead-acid batteries mixed with other batteries – see **A1170**
- Lead anodes (lead or alloys with tin, antimony and/or silver) from electrolytic chrome-plating (lead oxide layer and lead chromate deposits) – see **A1020**
- Lead compounds and non-solid or dispersible metallic lead waste, lead dust, lead sludge, lead dross, lead slag, lead oxide – see **A1010** and **A1020**
- Lead pigments – see **A4070**
- Wastes of leaded anti-knock compound sludge – see **A3030**
- Lead-bearing galvanic sludge – see **A1050**
- Lead-bearing fly ash, filtration dust – see **A4100**
- Soldering tin with lead oxide content higher than 0.3% (toxic to reproduction) – see **A1020**
- Mixtures of wastes under entries B1020 + B1010 and/or 1050 and/or with other metals as well as wastes under entry B1020 mixed with one another – see **A1020**



Figure 54: Used lead-acid batteries – A1160
 Figure 55: Car battery (lead-acid battery) – A1160



Figure 56: Lead sludge – A1020
 Figure 57: Wastes of lead batteries – A1160

16. CADMIUM SCRAP (BULK)

Designation:

Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):
Cadmium scrap

Other designations:

waste and scrap of cadmium (Cd)

Physical characteristics: solid, in lumps, in bulk finished (non-dispersible) form

EWL:

12 01 03 non-ferrous metal filings and turnings
16 01 18 non-ferrous metal
19 10 02 non-ferrous waste
19 12 03 non-ferrous metal
20 01 40 metals

Designation in English:

Cadmium scrap, waste and scrap of cadmium

Detailed description:

--- Metallic cadmium scrap and waste of cadmium alloys in bulk finished form

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

NB: The cadmium oxide content (= dispersible portion) must not exceed 0.1% (cadmium oxide is considered carcinogenic; limit value for carcinogenic: 0.1%).

Demarcation from similar Green List wastes:

- Cadmium-plated scrap and cadmium alloys (e.g. Babbitt metals and solder) shall be classified under the entry of the type of scrap that constitutes the main component – see **B1010**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Cadmium-containing galvanic sludge – see **A1050**
- Cadmium hydroxide sludge, non-massive cadmium scrap or dispersible cadmium waste – see **A1020** and **A1010**
- Waste zinc residues containing lead and cadmium in hazardous concentrations – see **A1080**
- Cadmium-containing filtration dust – see **A4100**
- Cadmium-based plastic stabilisers – see **A1020**
- Cadmium pigments – see **A4070**
- Waste of nickel-cadmium batteries – see **A1170**
- Cadmium electrodes removed from accumulators – see **A1010** or if dispersible **A1020**
- Electronic scrap primarily containing cadmium batteries (such as battery-operated drills) – see **A1180**
- All cadmium-containing catalysts (cleaned or contaminated) – see **A2030**
- Mixtures of wastes under entries B1020 + B1010 and/or 1050 and/or with other metals as well as wastes under entry B1020 mixed with one another – see **A1020**

17. CALCIUM FLUORIDE SLUDGE

Designation:

Green List B2070

Calcium fluoride sludge

Other designations:

CaF₂ sludge

Physical characteristics: solid - pasty

EWL:

06 03 14 solid salts and solutions other than those mentioned in 06 03 11* and 06 03 13*

06 09 04 calcium-based reaction wastes other than those mentioned in 06 09 03*

Designation in English:

Calcium fluoride sludge

Detailed description:

The waste can accumulate from the neutralisation of hydrofluoric acid or from phosphor chemicals.

Demarcation from similar Green List wastes:

--- Fluorspar (mining waste in non-dispersible form) – see **B2010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

--- In case of hazardous contamination of the calcium fluoride sludges or other waste of inorganic fluoride compounds in the form of liquids or sludges – see **A2020**

--- Other unlisted or not included inorganic halogenide compounds – **AB120**

NB: Strong acids release hydrogen fluoride. Caustic hazard!

18. CARBORUNDUM

Designation:
Green List B2040

Other wastes containing predominately inorganic substances: Carborundum (silicon carbide)

Other designations:

 Silicon carbide (SiC), boron carbide (B₄C), boron nitride, aluminium oxide, aluminium nitride

Physical characteristics: solid

EWL:

06 03 16 metal oxides other than those mentioned in 06 03 15*

10 03 05 waste alumina

12 01 21 spent grinding bodies and grinding materials other than those mentioned in 12 01 20* fallen

Designation in English:

Carborundum (silicon carbide); boron carbide/nitride, aluminium oxide/nitride

Detailed description:

Carborundum is a brand name for the synthetic hard material silicone carbide, composed of the words: carbon and corundum (a well-known hard material made of aluminium oxide).

Carborundum refers to silicon carbide, but boron carbide, boron nitride, aluminium oxide and even aluminium nitride can be subsumed under this term. The solid form of carborundum is used as a grinding material industrially and for tool-making due to its extreme hardness (abrasive paper, abrasive cut-off wheels, etc.). The category therefore includes grinding wheel fragments made of carborundum, for example.

Demarcation from similar Green List wastes:

- Waste hydrates of aluminium and waste, alumina, and residues from alumina production excluding such materials used for gas cleaning, flocculation, and filtration processes – see **B2100**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Contaminated grinding material made of carborundum – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Used blasting grit made of carborundum – see **AB130**
- Grinding bodies bound with phenolic polymer, not hardened – see **A3070** (phenols)

19. CHROMIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Chromium scrap

Other designations:

wastes and scrap of chromium (Cr); chromium shavings

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Chromium scrap, waste and scrap of chromium

Detailed description:

- Chrome-plated metal waste (chrome-plating = galvanic application of wear- and rust-resistant coating up to 500 µm thickness directly to steel, cast iron, copper or chrome-plated aluminium cylinders) in engine construction and rustproof and heat-resistant chromium alloys

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Chrome-plated plastic parts – see category: Plastic waste **B3010**
- Chromium catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Furnace linings for metallurgical and non-metallurgical processes (magnesite chromium waste or Cr(III)- and chromate-containing furnace linings) – **unlisted waste**
- Chromium salts (chromates, etc.) that accumulate in the form of chemicals – see **A4140**, otherwise chromium(VI) compounds – see **A1040**, chromium(III) compounds – **unlisted waste**
- Chromic acid, chromo-sulphuric acid – see **A4090** or **A1040**
- Chromium-containing filtration dust from industrial exhaust gas purification systems – see **A4100**
- Chromium-containing galvanic sludge – see **A1050**
- Chromium catalysts (contaminated) – see **A2030**

20. SLAG CONTAINING PRECIOUS METALS AND COPPER

Designation:

Green List GB040

Metal bearing wastes arising from melting, smelting, and refining of metals: slags from precious metals and copper processing for further refining

Note: Entry GB040 replaces the following entries of the Basel Convention under B1100 (Metal-bearing wastes arising from melting, smelting, and refining of metals) for shipments in the OECD region:

- Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Annex III (Basel Convention) hazard characteristics
- slags from precious metal processing for refining

Other designations:

slags from smelting of non-ferrous metals

Physical characteristics: solid

EWL:

- 10 06 01 slags from primary and secondary production – wastes from copper thermal metallurgy
- 10 07 01 slags from primary and secondary production – wastes from silver, gold, and platinum thermal metallurgy
- 10 08 09 other slags – waste from other non-ferrous thermal metallurgy

Designation in English:

Slags from precious metals and copper processing for further refining

Detailed description:

This category may include lead- and zinc-containing slags containing slight amounts of precious metals or copper. Slags from the processing of precious metals and copper are not classifiable under the above-mentioned Green List entry unless they are non-hazardous slags (analytical proof is required). Analysis is necessary to evaluate the composition.

In accordance with the EU-Correspondents' Guidelines No 6, slags from processing copper alloys may be subsumed under this entry. The guideline is available on the [website of the European Commission](#).

The conditions for this classification are the same as for slags from processing of copper (non-hazardous waste).

Demarcation from similar Green List wastes:

- Zinc-containing drosses – see **B1100**
- Tantalum-bearing tin slags with less than 0.5% tin – see **B1100**
- Chemically stabilised slag from zinc production having a high iron content (above 20%) processed in accordance with industrial specifications (e.g. DIN 4301), mainly for use in construction – see **B1220**
- Mixtures of waste classified under OECD entry **GB040** (slags from the treatment of precious metals and copper) and under Basel Convention entry **B1100** (metal-bearing waste arising from melting, smelting, and refining of metals), restricted to: hard zinc spelter, zinc-containing drosses, aluminium skimmings (or skims) excluding salt slag, waste of refractory linings, including crucibles originating from copper smelting – see **section 2d) of Annex IIIA**

Note: This mixture may not be exported to states to which the OECD Decision does not apply.

- Mixtures of wastes classified under OECD entry **GB040**, entry **B1070** and entry **B1100** of the Basel Convention restricted to waste of refractory linings, including crucibles from copper smelting – see **section 2e) of Annex IIIA**

Note: This mixture may not be exported to states to which the OECD Decision does not apply.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Slags classifiable as hazardous (e.g. high lead content) – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List), e.g. lead slag – see **A1020**
- Slag from waste incineration facilities – see **Y47** (Amber Waste List)
- Slags from the combustion of hazardous waste – **unlisted waste**



Figure 58: Slag from the combustion of hazardous waste – unlisted waste

21. PRECIOUS METAL WASTE (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Precious metals (gold, silver, the platinum group, but not mercury)

Other designations:

Precious metal scrap, silver (Ag), platinum (Pt), gold (Au) scrap;

The following are designated as platinum metals:

ruthenium (Ru), osmium (Os), rhodium (Rh), iridium (Ir), palladium (Pd) and platinum (Pt).

Physical characteristics: solid, in metallic non-dispersible form

EWL:

- 10 07 99 wastes not otherwise specified
- 12 01 03 non-ferrous metal filings and turnings
- 16 01 18 non-ferrous metal
- 19 10 02 non-ferrous waste
- 19 12 03 non-ferrous metal
- 20 01 40 metals

Designation in English:

Precious metal scrap, gold, silver, the platinum group (but not mercury)

Detailed description:

- Silver oxide/silver electrodes removed from silver-zinc storage batteries
- Lab apparatus scrap
- Shafts and pins for instrument making, writing pen and spinneret waste
- Platinum-ceramic chip sensors (electronic)

NB: Waste contaminated with mercury or containing mercury in alloys, as well as amalgams, is not classifiable as Green List waste. The precious metals must be in a form that can be used in precious metal refinement without first separating out any Hg-containing components.

The following are considered to be platinum-group metals: platinum, iridium, osmium, palladium, rhodium and ruthenium.

Demarcation from similar Green List wastes:

- Metallic gold, silver and platinum-group wastes in a dispersible, non-liquid form – see **B1150**
- Circuit boards and printed circuit boards with precious metals ("goldfingers"), without hazardous characteristics – see **GC020**
- Waste photographic film containing silver halides and paper waste – see **B1180** and **B1190**
- Ash from the incineration of photographic film containing silver – see **B1170**
- Ash from the incineration of printed circuit boards without hazardous properties – see **B1160**
- Silver-containing precipitation residues from photo processing solutions (not concentrates or baths) – see **B1150**
- Precious metal waste with traces of cyanide (limit value as per EWL) – see **B1140**
- Slags from precious metal and copper processing for further refining (if non-hazardous waste) – see **GB040**
- Spent precious metal catalysts, to the extent cleaned – see **B1130**
- Precious metal ash, sludge (no anode slime), dust, and other residues, but without hazardous properties – see **B1150**

- Mixtures of wastes under entries B1010 + B1050 – see **section 2a)** of Annex IIIA
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b)** of Annex IIIA
- Mixtures of wastes under entry B1010 – see **section 3a)** of Annex IIIA

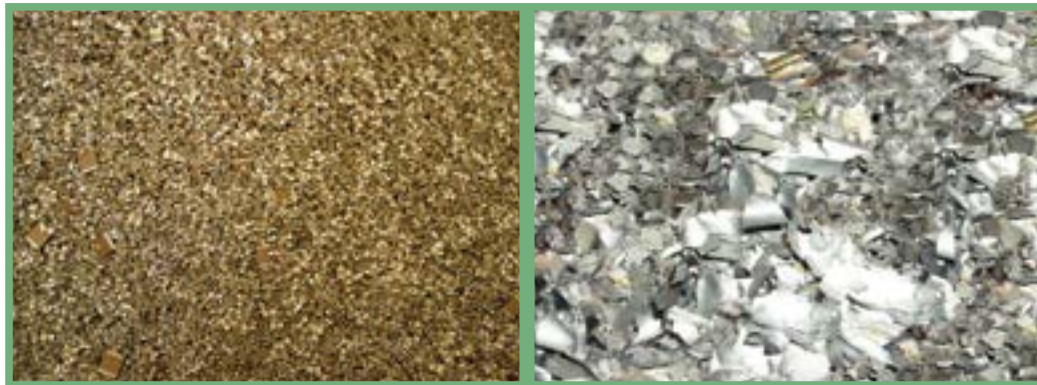


Figure 59: Precious metals on ceramic contacts

Figure 60: Platinum scrap from platinum plating

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Mercury as a metal or alloy (amalgams) – see **A1010** and **A1030**
- Mercury-containing components such as mercury switches, mercury-containing rectifiers – see **A1030**
- Printed circuit boards with hazardous components but containing large quantities of gold or precious metals – see **A1180**
- Precious metal-containing galvanic sludges (and other sludges) – see **A1050** (possibly **A1120**)
- Anode sludge – see **A1020** lead-bearing wastes (to the extent that they have a high lead content) or **unlisted waste**, notification is required (e.g. at high nickel content > 0.1%)
- Residues from (cyanide) baths containing precious metals – see **A4050**
- Silver oxide-bearing round-cell batteries (such batteries have a mercury content of as high as 2%) – see **A1170**
- Ash from the incineration of printed circuit boards, to the extent that they have hazardous characteristics – see **A1150**
- Precious metal ash, sludge, dust, and other residues with hazardous characteristics (e.g. fly ash) – see **A4100** wastes from industrial exhaust gas purification systems or **unlisted waste**
- Precious metal wastes with more than traces of cyanide – see **A4050**
- Precious metal compounds in the form of salts or solutions with hazardous contaminations – see **A4140** (chemicals) or **unlisted waste**
- Spent precious metal catalysts, contaminated – see **A2030**
- Containers with residues of precious metal paste containing solvents – see **A4130**
- Precious metal alloys with mercury (amalgams, e.g. dental amalgams) – see **A1010** or **A1030**



Figure 61: Silver-palladium paste – **A4130**

Figure 62: Anode sludge – **A1020** or **unlisted waste**

22. PRECIOUS METALS (DISPERSIBLE)

Designation:

Green List B1150

Precious metal and alloy waste (gold, silver, platinum group, but no mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

Other designations:

Precious metal waste (dispersible); dispersible precious metal scrap of silver (Ag), platinum (Pt), gold (Au)
The following are designated as platinum metals: ruthenium (Ru), osmium (Os), rhodium (Rh), iridium (Ir), palladium (Pd) and platinum (Pt).

Physical characteristics: solid - highly viscous; in dispersible, non-liquid form

EWL:

- 09 01 06* wastes containing silver from on-site treatment of photographic wastes
- 09 01 99 wastes not otherwise specified
- 10 07 01 slags from primary and secondary production
- 10 07 02 dross and skimmings from primary and secondary production
- 10 07 03 solid wastes from gas treatment (silver, gold, platinum thermal metallurgy)
- 10 07 04 other particulates and dust
- 10 07 05 sludges and filter cake from gas treatment

Designation in English:

Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

Detailed description:

Examples:

- Silver-containing precipitate residues from photo development
- Precious metal-containing metallic dust, e.g. from processing of precious metals
- Precious metal-containing skimmings/dross without hazardous components

NB: Precious metal-containing wastes that contain mercury as a contaminant or alloy component, as well as amalgams are by no means classifiable as Green List waste.

Demarcation from similar Green List wastes:

- Precious metal-containing ash from the incineration of printed circuit boards, without hazardous characteristics – see **B1160**
- Solid precious metal residues containing traces of inorganic cyanide – see **B1140**
- Slags from precious metal recovery, without hazardous components – see **GB040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Amalgam waste and wastes containing mercury – see **A1010** or if dispersible **A1030**
- Anode sludge – see **A1020** (in case of increased lead content) or **unlisted waste**
- Precious metal dust with hazardous contamination and hazardous ash and dross containing precious metals – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Precious metal residues with higher quantities of cyanide – see **A4050**
- Photographic and fixing baths – see **AD090**
- Slags from precious metal recovery with hazardous characteristics – **unlisted waste**
- Liquids containing precious metal salts, e.g. silver nitrate (chemicals) – see **A4140**
- Filtration dust with hazardous characteristics that contains traces of precious metals – see **A4100** or **A1100**, to the extent that they come from copper smelting

23. PRECIOUS METAL ASH (FILM)

Designation:

Green List B1170

precious metal ash from the incineration of photographic film

Other designations:

photographic film ash (containing precious metals)

Physical characteristics: solid

EWL:

09 01 99 wastes not otherwise specified

10 07 04 other particulates and dust

Designation in English:

Precious-metal ash from the incineration of photographic film

Detailed description:

This is silver-containing ash from the incineration of photographic film.

Demarcation from similar Green List wastes:

- Waste photographic paper containing silver halides or silver in metallic form – see **B1180**
- Precious-metal ash from the incineration of printed circuit boards (without hazardous characteristics) – see **B1160**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Precious metal ash from incineration of printed circuit boards, with hazardous characteristics/contamination – see **A1150**

24. PRECIOUS METAL ASH (PRINTED CIRCUIT BOARDS)

Designation:

Green List B1160

Precious metal ash from the incineration of printed circuit boards (see the entry on this in List A, A1150)

Other designations:

Ash containing precious metals from the incineration of printed circuit boards; printed circuit board ash (containing precious metals)

Physical characteristics: solid

EWL:

10 07 04 other particulates and dust (silver, gold, and platinum thermal metallurgy)

Designation in English:

Precious-metal ash from the incineration of printed circuit boards

Detailed description:

Precious metal-containing ash from the incineration of printed circuit boards without hazardous characteristics. Analysis is required to determine whether it is non-hazardous.

Demarcation from similar Green List wastes:

- Precious metal and alloy waste (gold, silver, platinum group, but no mercury) in a dispersible, non-liquid form with appropriate packaging and labelling – see **B1150**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Ash containing precious metals from the incineration of printed circuit boards with hazardous contamination or characteristics (e.g. if the hazardous components were not removed from the printed circuit boards to a sufficient degree prior to incineration) – see **A1150**

25. PRECIOUS METAL-BEARING RESIDUES (SOLID)

Designation:

Green List B1140

solid precious metal residues containing traces of inorganic cyanide

Other designations:

solid residues containing precious metals with traces of inorganic cyanides

Physical characteristics: solid

EWL:

- 01 03 06 tailings other than those mentioned in 01 03 04* and 01 03 05*
- 06 04 99 waste not otherwise specified (Macrogroup: metal-containing wastes other than those mentioned in 06 03)
- 11 01 10 sludges and filter cakes other than those mentioned in 11 01 09*
- 19 02 06 sludges from physico/chemical treatment other than those mentioned in 19 02 05*

Designation in English:

Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides; solid precious-metal bearing residues with traces of inorganic cyanides

Detailed description:

Such precious metal residues must by no means contain mercury or other heavy metals or toxic compounds (cyanide) in hazardous quantities. Analysis is required to determine whether it is non-hazardous.

Demarcation from similar Green List wastes:

- Precious metal wastes in dispersible, non-liquid form – see **B1150**
- Precious metal-containing ash from the incineration of printed circuit boards, without hazardous characteristics – see **B1160**
- Precious metal-containing ash from the incineration of photographic film – see **B1170**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Precious metal residues with higher quantities of cyanides – see **A4050**
- Precious metal residues with hazardous characteristics (e.g. increased heavy metal content) – **unlisted waste** or listed according to the contaminants of list A (Amber Waste List)
- Anode sludge – see **A1020** (if the sludge has high lead content), otherwise **unlisted waste**
- Amalgam waste and wastes containing mercury – see **A1010** or if dispersible **A1030**



Figure 63: Cyanide waste containing precious metals – A4050

26. SINGLE-USE CAMERAS

Designation:
Green List B4030

Used single-use cameras (with batteries not included on list A)

The Green List entry is applicable in case of shipments from and to Austria only for single use cameras without batteries, as according to scientific knowledge presently (almost) all batteries placed on the market exhibit at least one hazard characteristic, even if they do not contain any (remarkable) amounts of lead, cadmium or mercury.

In the Austrian List of Waste Ordinance – contrary to the European List of Waste - all types of batteries are classified as hazardous waste ex lege which cannot be de-classified as non-hazardous waste.

Pursuant to Article 3(3) of the EC Waste Shipment Regulation, wastes assigned to the Green List shall be subject to the control procedure of the Amber List, if these wastes exhibit hazardous characteristics.

Therefore the shipment of all waste batteries requires a notification procedure.

This fact has been notified to the European Commission pursuant to Article 3(3) of the EC Waste Shipment Regulation (file no.: BMLFUW-UW.2.1.7/0039-VI/2/2007 – application for shifting all types of batteries to the Amber List).

The new evaluation of the classification is to be conducted by the European Commission in the committees for the Batteries Directive.

Other designations:

disposable cameras; single-use cameras

Physical characteristics: solid

EWL:

09 01 10 single-use cameras without batteries

(09 01 12 single-use cameras with batteries other than those mentioned in 09 01 11*)

Note: In Austria, this entry falls under the Amber List.
Designation in English:

Used single-use cameras

Detailed description:

Single-use cameras are ordinary viewfinder cameras in which the film cannot be replaced. The whole camera is given to the photo lab where the film is developed; these cameras have become less important in the present day. The housing can be recycled. It is a mixture of materials consisting of paper, plastic, electronic components, and batteries.

Due to the fact that all batteries have a hazardous property (cf. electrolytes), only single-use cameras without batteries are classifiable as Green List waste.

Demarcation from similar Green List wastes:

There is no relevant similar entry on the Green List.

NB: Entry B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury is not applicable, since all batteries constitute hazardous waste ex lege in Austria.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Single-use cameras or other old, defective cameras/digital cameras with all types of batteries – see **A1180**
- All types of waste batteries (sorted or unsorted batteries) – see **A1170**
- Waste lead-acid batteries, whole or crushed – see **A1160**

27. IRON/STEEL SLAG

Designation:

Green List B1210

Slag arising from the manufacture of iron and steel, including slag as a source of TiO₂ and vanadium

Other designations:

iron- and steelworks slag; iron and steelworks slag for titanium dioxide or vanadium production;

Physical characteristics: solid

EWL:

10 02 01 waste from the processing of slag

10 02 02 unprocessed slag

10 02 99 wastes not otherwise specified (waste from the iron and steel industry) – to be used in special cases

Designation in English:

Slag arising from the manufacture of iron and steel including slags as a source of TiO₂ and vanadium; iron and steelworks slag

Detailed description:

Slags from iron and steel production, especially waste from slag processing and unprocessed waste slag, are classifiable in the Green List if suitable for admissible recovery operations (e.g. recovery in the construction industry or use as sand-blasting products) and if they in no way constitute hazardous waste (e.g. because of contamination, especially in the case of many types of slag from stainless steel production).

Examples of Green List slags:

- Basic slag suitable for use as phosphate fertiliser (Thomas slag), subject to compliance with the fertiliser laws
- Slag from ferrovanadium production (iron metallurgy), to the extent that it has no hazardous characteristics (appropriate proof required)
- Converter slags – argon oxygen decarburisation (AOD) converter and electric arc furnace (EAF) steel mill slag – from the manufacture of stainless steel without exhibiting hazardous characteristics (e.g. which are destined for the reclamation of metals and recovery of the resulting mineral fraction), ladle slag as well as LD slag without hazardous properties
- Cupola furnace slag resulting from melting of iron, steel, and malleable iron

The following requirements and standards can be applied to the recovery of the mentioned slags (this list is not exhaustive):

EN 197-1 Cement; the delivered slag products must comply with the parameters agreed with the cement industry.

EN 13242 Construction materials standard – in case of application as construction materials both the total pollutant content and the leachate characteristics referring to the relevant requirements according to the state of the art as well as the Landfill Ordinance.

CE designation in accordance with: EN 12620 Aggregates for concrete

The conditions for the use of steel mill slag as construction material established in the Recycled Construction Materials Ordinance, Federal Law Gazette II No 181/2015, as amended, are to be complied with in Austria.

With respect to the technical construction characteristics for the first use of steel mill slag, ÖNORM B3130 "Aggregates for bituminous mixtures and surface dressings for roads, airfields and other trafficked areas – rules for implementation of ÖNORM EN 13043", issued on 1 August 2010, applies in accordance with this Ordinance.



Figure 64: Electrical furnace slag (containing chromium) from a stainless steel mill – Green List in permissible application – NB: Backfilling on soil/roads is illegal!

Demarcation from similar Green List wastes:

- Granulated slag arising from the manufacture of iron and steel (non-hazardous waste) – see **B1200**

NB: Granulated slag arising from the manufacture of iron and steel (non-hazardous waste) can, to the extent manufactured in compliance with national or international standards for a specific application, be considered equivalent to a product (for further details, see B1200).

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Slag arising from the manufacture of iron and steel or the manufacture of ferrous alloys with hazardous characteristics (e.g. increased concentrations of stainless steel alloy components, chromate or calcium sulphide) – see **AA010**
- Slags from the incineration of hazardous waste – **unlisted waste**
- Slags from the incineration of residual waste/municipal waste and similar wastes – see **Y47** (Amber Waste List)
- Slags from non-ferrous metallurgy which are not explicitly specified on the Green Waste List – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)

28. IRON AND STEEL SLAGS (GRANULATED)

Designation:

Green List B1200

granulated slag arising from the manufacture of iron and steel

Other designations:

iron slag, granulated; "blast-furnace slag", slag sand

Physical characteristics: solid

EWL (when classified as waste):

10 02 02 unprocessed slag

10 02 01 waste from the processing of slag

Designation in English:

Granulated slag arising from the manufacture of iron and steel; ground granulated blast furnace slag, slag sand

Detailed description:

This includes granulated slags from iron and steel production without hazardous properties that are fed into permissible recovery.

Granulated blast-furnace slag from the production of crude iron (non-hazardous waste) is considered to be a product in Austria and in many OECD member countries to the extent that it is made in accordance with national or international standards through process control designed for a specific application.

The status of "product/waste" must be checked in the importing country (and if applicable, in any transit country) in the case of transboundary shipment out of Austria, especially in light of Article 28 of the EC Waste Shipment Regulation. If there are differences concerning classification, the stricter procedure shall apply (consequently, in case of classification as Green Listed waste it is necessary to carry the Annex VII form and a recovery contract must have been concluded).

National and international standards stipulate the required chemical and physical characteristics and quality monitoring procedure for ground granulated blast furnace slag.

If the granulated slag is ground further, it is designated as ground granulated blast furnace slag and may be used as an additive for concrete or pre-cast concrete parts or mortar.

Examples of Green List wastes (not products):

- Granulated electrical furnace slag (EFS) or electric arc furnace slag (EAF) with no hazardous properties
- Granulated converter slag (LD slag) with no hazardous properties

Requirements and standards relevant to the recovery of granulated slag from iron and steel production (this list is not exhaustive):

EN 15167-1: Ground granulated blast furnace slag for use in concrete, mortar, and grout – Part 1: Definitions, specifications, and conformity criteria;

EN 15167-2: Ground granulated blast furnace slag for use in concrete, mortar, and grout – Part 2: Conformity evaluation;

EN 197-1: Cement
The delivered slags must comply with the parameters agreed with the cement industry.

EN ISO 11126-6: Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 6: Iron furnace slag

ÖNORM B 3313: Blast-furnace slags, general aspects

ÖNORM B 3314: Expanded blast furnace slag (foamed blast furnace slag) and porous blast furnace slag aggregates

ÖNORM B 3317: Blast furnace slag aggregates for concrete;

CE designation in accordance with: EN 12620 Aggregates for concrete;

EN 13242: Construction materials standard

In case of application of granulated blast furnace slag as a construction material, an analysis of the total pollutant content and the leaching behaviour must be carried out with reference to the relevant requirements according to the state of the art as well as the Landfill Ordinance.



Figure 65: Slag sand (granulated iron slag) – PRODUCT

Demarcation from similar Green List wastes:

- Slag arising from the manufacture of iron and steel, including slag as a source of TiO_2 and vanadium – see **B1210**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Slag arising from the manufacture of iron and steel with hazardous characteristics (e.g. increased concentrations of stainless steel alloy components such as nickel, chromium, chromate or calcium sulphide as total contents of pollutants in the waste and in the leachate) – see **AA010**
- Slags from the incineration of residual waste/municipal waste and similar wastes – see **Y47** (Amber Waste List)
- Slags from the incineration of hazardous waste – **unlisted waste**

29. IRON AND STEEL SCRAP (NON-DISPERSIBLE)

Designation:
Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Iron and steel scrap

Other designations:

Waste and scrap made of iron (Fe) and steel, stainless steel, "household scrap", cast iron waste, iron drums, tinplate waste, lathe shavings, milling shavings and filing shavings

"Skimmer iron"* (with iron slag content of under 10%), "steel skimmer" (with steel slag content of under 10%).

**Note: Skimmer iron and steel skimmer from electrical furnace slag and secondary metallurgical slag must be broken down if necessary and separated from the slag residue in order to demonstrate a slag content of 10% maximum.*

Physical characteristics: solid, in metallic non-dispersible form

Note: dispersible oxide residues are permissible

EWL:

02 01 10 waste metal
 12 01 01 ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 17 ferrous metal
 17 04 05 iron and steel
 19 01 02 ferrous materials removed from bottom ash
 19 10 01 iron and steel waste
 19 12 02 ferrous metal
 20 01 40 metals

Designation in English:

Iron and steel scrap; tin plate scrap; iron and steel chipping, turnings, drillings, zinc plated plates; skimmer iron (max. 10 % slag content)

Quality requirements

The quality requirements for iron scrap are published in the European Steel Scrap Specification, and agreed upon by EUROFER (European Steel Industry Association) and EFR (European Recycling Association for iron and steel).

In accordance with this [European scrap type list](#) the permissible residues adhering to non-metallic, non-hazardous waste ("debris") are restricted correspondingly; higher percentages of non-hazardous residues are allowed only in the case of the somewhat lower quality or inferior type of waste "incineration scrap" (the iron content must be greater than or equal to 92%).

NB: Iron and steel scrap whose level of non-hazardous and non-metallic impurities exceeds the permissible level of 10% is subject to the notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

If there is more than 5% incinerator slag in the scrap (even if those slags have been de-classified as non-hazardous waste), the scrap cannot be assigned to the Green List any more, especially as waste incineration slag is always subject to a notification procedure (Y47 – Amber List).

In case these limit values are exceeded, the scrap shows a contamination of Green Listed waste with Amber Listed waste. Consequently notification is required for the shipment of the contaminated scrap.

Excerpt from the scrap type list – Purity:

- "All scrap varieties should be free – except for insignificant amounts – from other, non-ferrous metals and non-metallic substances, soil, insulation, excessive iron oxide in any form, except for nominal amounts of surface rust, arising under normal atmospheric conditions in cases of the external storage of reclaimed scrap.
- All varieties should be free – except for insignificant amounts – from combustible, non-metallic materials, including but not limited to rubber, plastic, fabric, wood, oil, lubricants, and other chemical or organic substances
- All scrap must be free of major parts (brick size), which are not conducting electricity, such as tyres, tubes filled with cement, wood or concrete.
- All varieties must be free of waste or "by-products" from the steel melt, from thermal processes, from specific treatment processes including flash-rays, grinding, sawing, welding, and flame cutting, such as slag, mill scales, filter dust, blasting grit, and mud.
- Shredded scrap from the waste incineration facility for household waste which has passed through the magnetic separation system, shredded in pieces which may not be larger than 200 mm and which contain a portion of tin-coated steel cans prepared for immediate use should be free of excessive moisture and rust. It must be free of excessive quantities of visible copper, tin, lead (and alloys) and free of "debris" (= contamination) in order to achieve the target analysis values."

Detailed description:

Unalloyed iron scrap must not contain any levels of certain elements above the specified limit values The entry covers both unalloyed and alloyed iron/steel scrap. Non-magnetic fractions of highly alloyed steels also fall under this entry.

- Cast iron scrap
- Stainless steel scrap
- Other steel alloy scrap
- Tin-coated iron or steel scrap
- Zinc-coated iron or steel scrap
- Tinplate cans and drums without hazardous contamination
- Lathe shavings, milling shavings, planing shavings, grinding shavings, sawing shavings, filing shavings, and stamping or cutting waste, including compacted waste; in this regard, it is particularly important to ensure that the shavings are largely free of drilling oils and grinding oils (drain; centrifuge) and they may not exceed the petroleum-derived hydrocarbon index set forth in the List of Waste Ordinance.
- Scrap from scrap collections consisting mostly of iron and steel scrap
- Drums emptied of residue, drained, scraped out (cleaned with a scraper) or brushed out clean, provided that it does not have any hazardous properties
- "Household scrap" (iron scrap from home pick-up), such as bicycles, iron sheets, etc. (metal content higher than 90%) if it is not contaminated with hazardous substances or waste in quantities that pose a risk to the environment
- So called "magnetic scrap" (e.g. from industrial waste treatment) if it shows a metal content higher than 90%.
- Used iron or steel rails (without railway sleepers)
- Skimmer iron or steel skimmer as long as the proportion of iron or steel slag does not exceed 10%.

NB: The slag accumulated is collected together with crude iron or crude steel, and as such the slag-metal mixture normally has a slag content of between 5% and 25%. If the iron or steel slag content of the skimmer iron or steel skimmer is more than 10%, it is an unlisted waste mixture of B1010 iron or steel scrap and B1210 slag from iron and steel production and requires notification in the event of trans-boundary shipment.

NB: Drilling shavings, lathe shavings and filing shavings with a high oil content, constitute hazardous waste in Austria because of hydrocarbon contamination and therefore require notification.

GUIDELINES FOR THE SHIPMENT OF WASTE

The limit value for hydrocarbons for the fulfilment of a hazardous property is not harmonised internationally; Article 28 of the EC Waste Shipment Regulation is to be observed – if requirements are different in the countries of dispatch and destination, then the stricter classification will take precedence!

Containers emptied of substances and preparations that must be labelled with a "skull and crossbones – GHS06" or the "health hazard GHS08" symbol or the "exploding bomb – GHS01" symbol are hazardous waste subject to notification and are not to be allocated to the Green Waste List under any circumstances.

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



On account of residual contamination (incomplete emptying), emptied tight-head drums which contained oils or other hazardous viscous substances constitute hazardous waste which is to be allocated to entry A4130 (Amber Waste List) (subject to notification).

Empty compressed gas tanks which are no longer under pressure and contain flammable propellants also constitute hazardous waste subject to notification.



Figure 66: Miscellaneous iron scrap, partially corroded

Figure 67: Shredded iron scrap



Figure 68: Chrome steel chips

Figure 69: Iron scrap



Figure 70: VA stainless steel waste > 90% metal content

Figure 71: VA stainless steel waste > 90% metal content

Demarcation from similar Green List wastes:

- Engines (without capacitors) consisting of iron and copper and classifiable in the Green List – see **GC010**
- Mill scaling, if free from contamination (e.g. oil) within the meaning of the basic requirements for classification in the Green List – see **B1230**
- Waste end-of-life vehicles, containing neither liquids nor other hazardous components – see **B1250**
- Mixtures of wastes under entries B1010 and B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 and B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Old refrigerators with CFC/HCFC/HFC, pentane, butane, ammonia, etc. – see **A1180**
- Oil radiators – see **A1180**
- Asbestos-containing storage heaters or asbestos-containing scrap – see **A1180** (or possibly **A2050** asbestos)
- Compacted scrap cars or end-of-life cars whose level of hazardous substances has not been reduced (high percentage of non-steel contaminants that interfere with recycling and cause environmental pollution) – **unlisted waste**
- "Magnetic scrap" (e.g. separated from industrial waste treatment by magnet) which shows a high content (exceeding 10%) of non-metallic, non-hazardous contaminants (e.g. shredder waste) – **unlisted waste**
- "Iron braid" from waste paper recycling (mixture of iron/steel wire, scrap paper, and plastics) – **unlisted waste**
- Slags, cinder or scale with hazardous contamination and other wastes from the manufacture of iron and steel (e.g. scalings from processes other than milling operations or mill scale, contaminated) – see **AA010**
- Ferrous flue dust – see **A4100**
- Full or partially drained containers (e.g. spray cans with residual contents or iron drums with chemicals, mineral oil) – see **A4130**
- Containers fully emptied of substances and preparations that must be labelled with a "skull and crossbones – GHS06" or the "health hazard – GHS08" symbol or the "exploding bomb – GHS01" in accordance with chemicals legislation, "fully" emptied tight-head drums that contained oil or other hazardous viscous substances – see **A4130**
- Pressurised gas containers no longer under pressure, free of residues, containing flammable propellants - see **A4130**
- Used blasting grit made of iron/steel with hazardous or non-hazardous contaminations – see **AB130**
- Wastes of shotgun hulls (consisting of plastic, metals, and paperboard) – **unlisted** (composite material)
- Skimmer iron or steel skimmer, with more than 10% slag content – **unlisted** (mixture)



Figure 72: Old refrigerators – A1180

Figure 73: Tins/cans with hazardous residual contents – A4130



Figure 74: Filter dust from stainless steel casting – A4100

Figure 75: Iron scrap with high proportion of waste incineration slag – unlisted waste (mixture)



Figure 76: Iron/steel scrap with high impurity content from mechanical-biological treatment plants (MBT) – unlisted waste

Figure 77: Heavily contaminated metal packaging fraction – unlisted waste

30. IRON-CONTAINING SLAG (COPPER PRODUCTION)

Designation:

Green List B2040

Other wastes containing predominately inorganic constituents: Slag from copper production, chemically stabilised, having a high iron content (above 20%) and processed in accordance with industrial specifications (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications

Other designations:

iron-containing slag (from copper production); Fe-containing slag chemically stabilised for use as a construction material or abrasive; "silicate of iron" from copper production

Physical characteristics: solid

EWL:

10 06 01 slags from primary and secondary production

Designation in English:

Slag from copper production, chemically stabilized, having a high iron content (above 20 %) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications; aggregate (iron silicate) for cement industry

Detailed description:

Chemically stabilised slag from copper production having a high iron content (above 20%) and processed in accordance with industrial specifications (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications. Analysis is necessary to evaluate the composition.

Demarcation from similar Green List wastes:

- Slag from zinc production, chemically stabilised, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301) mainly for construction – see **B1220**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Used sand blasting grit – see **AB130**
- Slags from copper production with hazardous characteristics – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)

31. IRON-CONTAINING SLAG (ZINC PRODUCTION)

Designation:

Green List B1220

Slag from zinc production, chemically stabilised, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301) mainly for construction

Other designations:

chemically stabilised slag from zinc production with high iron content; iron silicate slag

Physical characteristics: solid

EWL:

10 05 01 slags (primary and secondary smelting)

Designation in English:

Slag from zinc production, chemically stabilized, having a high iron content (above 20 %) and processed according to industrial specifications (e.g. DIN 4301) mainly for construction; ferro-silicate slag

Detailed description:

Chemically stabilised slag from zinc production having a high iron content (above 20%) processed in accordance with industrial specifications (e.g. DIN 4301), mainly for use in construction. Analysis is necessary to evaluate the composition.

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Used blasting grit (esp. slag-based) – see **AB130**
- Iron-containing slags (from zinc production) with hazardous characteristics – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Slags from the incineration of hazardous waste – **unlisted waste**
- Slags from the incineration of residual waste/municipal waste and similar wastes – see **Y47** (Amber Waste List)
- Slags from non-ferrous metallurgy which are not explicitly specified on the Green Waste List – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)

32. IRON SCALE

Designation:

Green List B1230

Mill scaling arising from the manufacture of iron and steel

Other designations:

iron scaling; forge scaling; scaling, Fe forge scaling;

Physical characteristics: solid

EWL:

10 02 10 mill scales

Designation in English:

Mill scaling arising from the manufacture of iron and steel

Detailed description:

Scaling means the oxide layers on the surface formed through high temperatures in combination with an oxidising atmosphere.

Mill cinder or mill scaling can be classified in the Green List only if the total hydrocarbon content does not exceed the limit value set forth in the List of Waste Ordinance (note possibly more stringent limit values in other countries – Article 28 of the EC Waste Shipment Regulation!) and no other hazardous characteristic (e.g. due to excessive heavy metal content such as chromium(VI) or nickel, etc.) is met. Analysis is required to determine whether it is non-hazardous.



Figure 78: Iron scale

Figure 79: Iron scale

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Mill cinder (iron scale or forge scaling) that is contaminated with hazardous substances (e.g. higher quantities of mineral oil) or a higher content of heavy metals, so that the limit values set forth in the List of Waste Ordinance, as amended, are exceeded – see AA010



Figure 80: Iron scale with 2.2% mineral oil content – hazardous waste – AA010

NB: Iron scale can be classified as a by-product as defined by Waste Management Act 2002 if there is a quality assurance system which guarantees compliance with a petroleum-derived hydro carbon content (mineral oil content) < 0.1%. Reference is made to the possibility of an administrative ruling (declaratory decree) pursuant to Section 6 of the Waste Management Act 2002.

33. WASTE ELECTRICAL ASSEMBLIES/COMPONENTS (MADE OF METALS)

Designation:

Green List GC010

Electrical assemblies consisting only of metals or alloys

Note: Entry GC010 replaces the entry in the Basel Convention: "Electronic assemblies consisting only of metals or alloys" for shipments in the OECD area in entry B1110 Electrical and electronic assemblies.

Other designations:

metal-containing components, electrical assemblies or components consisting of metals; electronic scrap; e- scrap

Physical characteristics: solid**EWL:**

- 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*
 20 01 36 discarded electrical and electronic equipment other than that mentioned in 20 01 21*, 20 01 23* and 20 01 35*

Designation in English:

Electrical assemblies consisting only of metals or alloys

Detailed description:

- Electrical components/devices if they are made primarily of metals and alloys (e.g. removed electric motors without capacitors, telephone relay scrap) and do not have environmentally relevant quantities of hazardous components or ingredients (especially polyhalogenated, aromatic compounds such as PCBs and PCTs, mercury switches, batteries, storage batteries or large back-lit LCD displays using mercury gas discharge lamps)
- Refrigerator compressors insofar as it is proven that all the chlorofluorocarbons and partially hydrogenated hydrocarbons (CFCs/HCFCs/HFCs) as well as hydrocarbons (HC) and compressor oil have been removed by suction using state-of-the-art technology (see Waste Treatment Obligations Ordinance)

NB: Compressors filled with hydrocarbons or oil must not have any free (escaping) mineral oil in order to still be considered Green List waste. Merely drilling the compressors (three holes) is insufficient; oil must be demonstrably removed using a specific suction device (penetrated at the lowermost point) or the compressors must be cut up.

ATTENTION: Waste refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain CFCs/HCFCs/HFCs/PFCs in the insulating foam can never be allocated to the Green Waste List!

Refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain either hydrocarbons as propellant in the insulating foam or are equipped with VIP (Vacuum Insulation Panel) technology are a priori not to be allocated to the Green Waste List.

NB: In the scope of an administrative ruling (declaratory decree) pursuant to Article 6 Waste Management Act 2002, it is only possible to classify the refrigerators/refrigerator scrap containing hydrocarbons after treatment stage 1 into the Green List. Under GC020, however, if it is verifiably demonstrated that there are no CFCs/HCFCs/HFCs/PFCs in the propellant in the insulating foam for each individual device through sufficient testing and analysis (side surfaces and doors). Furthermore, sufficient testing and analysis is to demonstrate that the devices do not have VIP (Vacuum Insulation Panel) technology; the sectoral installation manner of the panels must be observed in the process. It is not possible to optically differentiate between CFC-free devices and devices with VIP technology (danger of releasing dusts which are harmful to the lungs during treatment).



Figure 81: waste electric motors

Figure 82: waste electric motors and other non-hazardous electric scrap

Demarcation from similar Green List wastes:

- Electronic scrap (e.g. printed circuit boards, electronic components, wire etc.) and reclaimed electronic components suitable for base and precious metal recovery – see **GC020**
- Non-hazardous, entire electrical and electronic equipment with relevant non-metallic content – see **GC020**
- Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous – see **B1040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste electrical and electronic assemblies containing environmentally-relevant levels of hazardous substances (e.g. undrained oil radiators, refrigerators and air-conditioners) – see **A1180** or potentially **unlisted waste**
- Full or drained PCB-transformers – see **A3180** or **A1180**
- Engines with PCB starting capacitors or electrolytic capacitors – see **A1180**
- Waste compressors containing oil – see **A1180**
- Refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain (CFCs/H-CFCs/H-HFCs/PFCs) as propellant in the insulating foam – see **A1180**
- Refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain either hydrocarbons as propellant in the insulating foam or are equipped with VIP (Vacuum Insulation Panel) technology – a priori **unlisted waste** (subject to notification)



Figure 83: Electric motor with PCB start-up capacitor – A1180

Figure 84: waste refrigerator compressor with R134a coolant – A1180



Figure 85: Vehicle engines which have not been emptied of remnants; no verification of functionality – A1180
Figure 86: Vehicle engines which have not been emptied of remnants – A1180

34. ELECTRONIC SCRAP

Designation:

Green List GC020

Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery

Note: The GC020 entry replaces the following Basel entries under B1110 Electrical and electronic devices for shipments in the OECD area.

- Waste electrical and electronic assemblies or scrap⁽¹⁾ (including printed circuit boards) not containing components such as accumulators, and other batteries included on list A, mercury switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I (Basel Convention) constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (Basel Convention) (note the related entry on list A, A1180)

- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse⁽²⁾, and not for recycling or final disposal⁽³⁾

⁽¹⁾ This entry does not cover power plant scrap.

⁽²⁾ Reuse may include repair, renewal or upgrade, but not major assembly.

⁽³⁾ In some countries, items intended for direct reuse are not classified as waste.

Other designations:

Electronic scrap; waste electronic/electrical equipment and components; electronic components for recovery; end-of-life electronic/electrical appliances; printed circuit boards; scrap devices; PV modules (photovoltaic modules)

Physical characteristics: solid

EWL:

16 02 14 discarded equipment other than those mentioned in 16 02 09* to 16 02 13*

16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*

20 01 36 used electrical and electronic equipment other than that mentioned in 20 01 21*, 20 01 23* and 20 01 35*

Designation in English:

Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery; printed circuit boards; end-of-life electronic devices; waste electric/electronic equipment (WEEE); PV modules (photovoltaic modules)

Detailed description:

Note: In some EU Member States, such as in the Netherlands, some of the waste streams listed below, in particular WEEE with no relevant content of hazardous ingredients, are considered to be unlisted waste. In this case, there is a duty to notify (see Article 28 of the EC Waste Shipment Regulation).

Depopulated or partially depopulated printed circuit boards and chassis which do not contain any hazardous components (see Waste Treatment Obligations Ordinance, Waste Electrical and Electronic Equipment Ordinance and EU WEEE Directive):

- printed circuit boards and racks without batteries, accumulators, mercury-containing components, electrolytic capacitors at least 25 mm in height and 25 mm in diameter and those with a comparable volume, PCB-containing components (e.g. capacitors), and without any LCD display units having a surface area of more than 100 cm² and/or back-lit display units with gas discharge lamps
- Populated printed circuit boards without components containing hazardous substances should be considered equivalent to depopulated printed circuit boards, e.g. printed circuit boards containing only ICs (integrated circuits) and resistors
- Unpopulated printed circuit boards and copper laminates (also as ground material)

- Wires (but by no means those contaminated with oil, PCB or coal tar) – see the special categories for cables in the Green Listed waste – B1115 (or Amber Listed waste A1190, to the extent contaminated with PCB or tar)
- Resistors
- Electrical/electronic equipment and/or components without environmentally relevant quantities of hazardous components and contents: e.g. household and kitchen appliances, electric ovens, washing machines, computer systems (without monitors or LCD displays), audio and video equipment (without monitors based on the principle of cathode-ray tubes, plasma monitors or LCD monitors), fax machines, and photocopy machines without photo-conducting drums that contain selenium, tellurium, arsenic or cadmium compounds
- Printers, if they do not contain accumulators or bigger electrolyte capacitors or toner cartridges with hazardous toners
- Mobile phones after removal of the accumulators (all types of batteries are classified as hazardous waste in Austria; the small LCD displays of the mobile phones are illuminated by LEDs (light emitting diodes) and therefore not considered a hazardous fraction)
- Ink and toner cartridges without residues of hazardous toners and inks (see product information or safety data sheets) and photoconductor drums with non-hazardous coatings (e.g. photoconductor drums with an OPC (organic photoconductor) coating and drums with scratch-resistant amorphous silicon layer or zinc-oxide coating). The EU Correspondents' Guidelines No 8 are available on the [website of the European Commission](#).
- Waste from silicon wafers (= thin metallic discs/plates of varying sizes which are used in semiconductors, photo equipment or micromechanics) made of monocrystalline silicon or silicon carbide from microchip production (EWL 06 08 99 waste not otherwise specified – Group MFSU of silicon and silicon compounds) or PV modules based on (monocrystalline) silicon/silicon carbide for recovery, including ones which are intended for preparation for reuse (such as production of smaller formats), except for those made up of gallium arsenide (carcinogenic category 1, toxic to reproduction category 1, STOT RE 1) or indium phosphide (carcinogenic category 1, toxic to reproduction category 2, STOT RE 1)
- Ground electronic scrap, if it has been pre-treated by removing hazardous substances through state-of-the-art technology (e.g. printed circuit boards that are shredded after removal of any hazardous components) – a written certificate of pre-treatment is required
- Non-working sockets and plugs (contacts made of steel, brass, sometimes covered with tin, zinc or nickel)
- Dismantled X-ray tubes from RFA spectrometers (glass, primary mass is water-cooled rhodium core)



Figure 87: Mixed electronic scrap without devices with environmentally relevant quantities of hazardous components

Figure 88: Printed circuit boards without hazardous components



Figure 89: Shredded printed circuit boards previously freed of hazardous components

Figure 90: Printed circuit boards without hazardous components (electrolytic capacitors under a size of 25 mm)



Figure 91: Etched circuit board, unpopulated

Figure 92: Copper laminates



Figure 93: Toner cartridges (non-hazardous toners)

Figure 94: Non-functional hard drives



Figure 95: Removed non-functional CPUs

Figure 96: Printed circuit boards without hazardous components

Demarcation from similar Green List wastes:

- Electrical assemblies consisting only of metals or alloys – see **GC010**
- Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous – see **B1040**
- Waste metal cables coated or insulated with plastics, not included in list A (Amber Waste List), excluding those destined for disposal operations involving, at any stage, uncontrolled thermal processes, such as open burning – see **B1115** (this category includes PVC-coated cables, provided that they do not contain PCBs)
- Precious-metal ash from the incineration of printed circuit boards, provided it has no hazardous characteristics – see **B1160**
- Diskettes, after separation of PVC (GH013): Polyester – see **B3010**
- Waste toners (toner residues) or inks not containing organic solvents, heavy metals, etc. to an extent rendering them hazardous – see **B4010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

For the classification of electronic scrap exhibiting hazardous characteristics under **A1180** or, in certain cases, **unlisted waste** reference should be made to the Correspondents' Guidelines No 4. The EU Correspondents' Guidelines No 4 are available on the [website of the European Commission](#).

Electronic scrap with radioactive components

Old ionisation fire detectors or smoke detectors that operate on the basis of a radioactive material (in most cases ^{241}Am ; in former times also radium, xenon, krypton (^{85}Kr), and tritium in glass ampoules) are exempted from the waste definition in the meaning of the Waste Management Act 2002 or respectively the EC Waste Framework Directive on the condition, that they are subject to the provisions of the Radiation Protection Ordinance or the relevant EC Directive.

This need not always be the case, as the intensity of radiation may vary.

Subsequently the transboundary shipment of old fire or smoke detectors or other electronic scrap containing ionising materials requires a notification and consent procedure by the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management, if the radiation intensity is below the limit values laid down in the Radiation Protection Ordinance (unlisted waste – control procedure of the Amber List)

A classification of ionisation fire or smoke detectors under the Green List is not allowed in any case.

- Capacitors containing PCBs – see **A3180**
- PCB- and PCT-containing electrical appliances (e.g. transformers) – see **A3180**
- Electrolytic capacitors – see **A1180** (or possibly **unlisted waste**)
- Batteries and accumulators, unsorted or sorted – see **A1170** or lead-acid batteries **A1160**
- Printed circuit boards populated with hazardous components (cf. Waste Treatment Obligations Ordinance, Waste Electrical and Electronic Equipment Ordinance and/or EU WEEE Directive – see **A1180**)
- Cullet and glass parts of cathode-ray tubes and other activated (coated) glass, including physically intact cathode-ray tubes, LCDs, plasma monitors, and cleaned CRT cone glass or mixed glass or CRT screen glass that still contains lead glass components – see **A2010**; lead glass waste see **A1020**
- Gas discharge lamps, fluorescent lamps, and other mercury-containing lamps, as cullet or physically intact (hazardous waste) – see **A1030** and **A2010** activated glass
- Mercury-containing components (e.g. mercury switches) – see **A1030**
- LCD (Liquid Crystal Displays) – see **A2010**
- Waste asbestos – see **A2050**
- CFCs and other coolants – see **AC150**
- Thermal oil or end-of-life appliances with thermal oils – see **A3020** or **A1180**
- Toner and ink cartridges containing (residues of) hazardous toners and inks as well as photo-conducting drums with coatings on the basis of selenium, tellurium, arsenic or cadmium compounds see (Correspondents' Guidelines No 8). The [EU Correspondents' Guidelines](#) No 8 are available on the website of the European Commission – see **A1180**.

- Devices that – relative to their total weight – have large LCDs (Liquid Crystal Displays), such as laptops and other LCD monitor equipment, such as miniature LCD televisions or portable DVD players – see **A1180**
- Electrical and electronic equipment and components with environmentally relevant quantities of hazardous components or ingredients, e.g. asbestos-containing storage heaters, oil radiators, refrigerators and air-conditioners with coolants containing CFCs, HFCs, fluorocarbons and hydrocarbons (e.g. propane/butane), as well as refrigerators and air conditioners with other refrigerants (e.g. ammonia) – see **A1180**
- Refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain CFCs/HCFs/HHFCs/HFCs as propellant in the insulating foam – see **A1180**
- Refrigerators and refrigerator scrap after treatment stage 1 (coolant draining) which contain either HCs as propellant in the insulating foam or are equipped with VIP (Vacuum Insulation Panel) technology – **unlisted waste** (subject to notification)

NB: In the scope of an administrative ruling (declaratory decree) pursuant to Article 6 Waste Management Act 2002, it is only possible to classify the refrigerators/refrigerator scrap containing hydrocarbons after treatment stage 1 into the Green List under GC020 if it is verifiably demonstrated that there are no CFCs/HCFs/HFCs/PFCs in the propellant in the insulating foam for each individual device through sufficient testing and analysis (side surfaces and doors). Furthermore, sufficient testing and analysis is to demonstrate that the devices do not have VIP (Vacuum Insulation Panel) technology; the sectoral installation manner of the panels must be observed in the process. It is not possible to optically differentiate between CFC-free devices and devices with VIP technology (danger of releasing dusts which are harmful to the lungs during treatment).

- Telefax machines and photocopying machines, if they contain photo-conducting drums on the basis of selenium, tellurium, arsenic or cadmium compounds – see **A1180**
- Printers (especially portable devices) containing accumulators, large electrolytic capacitors or toner cartridges with hazardous toner/ink residues (see safety data sheets!) – see **A1180**
- Devices whose main component (by weight) is a storage battery or other battery (e.g. cordless drills, electric toothbrushes, mobile phones) – see **A1180**
Note: may be classified under the Green List after removal of the power source
- Carbonised cables or end-of-life metal cables containing or contaminated with mineral oil, coal tar, PCBs or other hazardous substances (e.g. underground cables) so that they have hazardous properties – see **A1190**
- Ground electronic scrap which has not been verified as having been pre-treated according to the requirements of the Waste Treatment Obligations Ordinance, Waste Electrical and Electronic Equipment Ordinance and/or EU WEEE Directive (such as not sufficiently depopulated printed circuit boards) – see **A1180** or **unlisted waste**
- Precious metal-containing ash from incineration of printed circuit boards (with hazardous characteristics) – see **A1150**
- Waste from non-silicon-based photovoltaic modules and combination cells as well as wafers which contain substances such as gallium arsenide, cadmium telluride/selenide, indium phosphide – see **A1180**
- Single-use cameras with all types of batteries – see **A1180**



Figure 97: Capacitors – A1180



Figure 98: Removed cathode ray tubes – A2010



Figure 99: Fluorescent lamp waste – A1030



Figure 100: End-of-life televisions and monitors – A1180



Figure 101: Energy-saving lamp waste – A1030



Figure 102: Mixtures of monitors, TV sets and recorders – A1180



Figure 103: LCD displays – A1180



Figure 104: Mixed electrical and electronic scrap with monitors – A1180



Figure 105: Circuit boards populated with hazardous components – A1180

Figure 106: Components containing mercury – A1030



Figure 107: Radioactive components (radiation protection provisions may apply) – A1180

Figure 108: Electronic scrap containing asbestos – A1180 or A2050



Figure 109: Old mobile phones, some with rechargeable batteries – A1180

Figure 110: Flat screen monitors – A1180 or A2010



Figure 111: Old mercury contacts – A1030

Figure 112: Old monitor devices, unpackaged and without test certificates of functioning – hazardous waste – A1180

35. ETHERS (POLYMERS)

Designation:

Green List B3130

Waste polymer ethers and [long-chain] non-hazardous monomer ethers incapable of forming peroxides

Other designations:

Polyether; synthetic resins; polymers;

Physical characteristics: solid

EWL:

Classification of non-hazardous monomer ethers:

16 03 06 organic wastes other than those mentioned in 16 03 05* (note: off-specification batches)

Classification of polymer ether:

02 01 04 waste plastics (except packaging)

07 02 13 waste plastic

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09*

12 01 05 plastics shavings and turnings

15 01 02 plastic packaging

16 01 19 plastics

16 03 06 organic wastes other than those mentioned in 16 03 05*

17 02 03 plastic

19 12 04 plastic and rubber (note: limited to plastics)

20 01 39 plastics

20 01 28 paints, inks, adhesives, and resins other than those mentioned in 20 01 27*

Designation in English:

Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

Detailed description:

Polyethers are polymers whose organic repeating units are joined together by ether links. According to this definition, the term "polyether" covers a large number of polymers with very different structures.

The Green List category contains "formal" ethers, e.g.:

- Polyalkylene glycol (Polyethylene glycol, Polypropylene glycol, and Polyepichlorhydrin)
- Epoxy resin, phenoxy resin
- Polytetrahydrofuran (polytetramethylene glycol)
- Polyoxetane
- Polyphenylene ether (polyaryl ether)
- Polyetheretherketone
- Polyvinyl acetal: important are formaldehyde-based polyvinyl acetal (= polyvinyl formaldehyde) and Butyraldehyde (=polyvinyl butyral) for technical foils
- Polyacrolein
- Perfluorether
- "Etherised" hydroxy compounds, such as methylated cellulose (used for biodegradable dishes, for example)

This category was intended to make clear that such "ethers" were not hazardous despite the formal Y-entry Y40 in the Basel Convention.

Demarcation from similar Green List wastes:

- Cured resins such as epoxy resin, etc. – see **B3010**
- Fluorinated polymer wastes (FEP, PFA, MFA, PVF, PVDF) – see **B3010**
- Plastic waste of non-halogenated polymers and copolymers – see **B3010**
- Poly vinylchloride (PVC) and polyvinylidene chloride (PVCD) wastes – see **GH013**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "scrap plastic of non-halogenated polymers and co-polymers" – see **section 3d) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "cured waste resins or condensation products" – see **section 3e) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "perfluoro alkoxy alkanes" – see **section 3f) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Ethers (monomers) except for those in list B (Green Waste List) – see **A3080**
- Non-polymerised ethers (ether as solvent waste and in solvent mixtures) – see **A3140, A3150, A3160, A3170**
- Ether-containing waste paint and varnish – see **A4070**
- Pharmaceutical wastes containing ether – see **A4010**

36. LABEL WASTE (SELF-ADHESIVE)

Designation:

Green List B3027

Self-adhesive label laminate waste containing raw materials used in label material production

Physical characteristics: solid

EWL:

03 03 99 wastes not otherwise specified (production and processing of cellulose, paper, cardboard and paperboard)

15 01 06 mixed packaging

Designation in English:

Self-adhesive label laminate waste containing raw materials used in label material production

Detailed description:

These self-adhesive labels are a combination of the materials: Paper, plastic and adhesive with the following approximate composition:

- paper (80%), plastic (15%), carton (5%)
- Paper laminates: paper (88%), adhesive (11%), silicone (0.6%), carton (0.4%)
- Paper and plastic laminates: paper (50%), plastics (39%), adhesive (10%), silicone (0.5%), carton (0.5%)
- Plastic laminates: plastic (89%), adhesive (10%), silicone (0.5%), carton (0.5%), plastics: PE, PP, PET
Adhesives: acryl dispersion (on water base), silicone (solvent-free)

This may only include production waste (blends, cut-offs, scrap).

Demarcation from similar Green List wastes:

- Plastics (non-halogenated) – see **B3010**
- Coated papers (such as composite beverage cartons) – see **B3020**
- Composite packages which primarily consist of paper and a small amount of plastic and do not contain residue, and which are not classified in entry B3020 of the Basel Convention – see **BEU04** (Annex IIIB)
- Non-separable plastic-aluminium fraction from the pre-treatment of used composite packaging for liquids – see **B3026**
- Non-separable plastic from the pre-treatment of used composite packaging for liquids – see **B3026**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Detached labels in the form of rinsing slurry (not production waste) – **unlisted waste**
- Rejects from waste paper recovery – **unlisted waste**
- Mixtures of plastic waste, paperboard/paper waste and self-adhesive labels – **unlisted waste**

37. Waste end-of-life vehicles (hazardous substances removed)

Designation:

Green List B1250

Waste end-of-life motor vehicles, containing neither liquids nor other hazardous components

Other designations:

Drained waste end-of-life motor vehicles; old cars, end-of-life motor vehicles with hazardous substances removed;

Physical characteristics: solid**EWL:**

16 01 06 end-of-life vehicles, containing neither liquids nor other hazardous components

Designation in English:Waste end-of-life motor vehicles, containing neither liquids nor hazardous components;
Vehicle/car wreck; drained ELVs (end-of-life vehicles);**Detailed description:**

- Car body panels (without hazardous contaminants or constituents)
- Waste end-of-life motor vehicles should be classified as Green Listed waste if at the least the following liquids and hazardous components have been removed in accordance with the requirements of the End-of-Life Vehicles Ordinance:
 - Air-bags and belt tighteners (they contain explosives)
 - Fuels such as gasoline, diesel
 - Motor oil, power transmission fluids, gear lubricant oil, hydraulic oil (also from oil- containing shock absorbers)
 - Oil filters, oil-contaminated air filters, and fuel filters
 - Brake fluid
 - Coolants
 - Batteries/storage batteries
 - Coolant from air-conditioners
 - PCB-containing capacitors
 - Liquid gas systems
 - Mercury-containing components (lamps)
 - Adsorption-based refrigerators from motor homes

Hazardous products or waste not attached to the motor vehicle (e.g. fire extinguishers) must absolutely be removed.

NB: Used vehicles intended for cannibalisation (disassembly and removal of spare parts), shredding, reduction, pressing, and so on, are always waste (or hazardous waste to the extent that the hazardous substances have not been removed) and should never be considered "second hand" products (see also Chapter 9.2.2.4.D. – National explanations on the EU Correspondents' Guidelines No 9 concerning the classification of used vehicles – waste (end-of-life vehicle) or product.

Half-cut end-of-life vehicles always constitute waste in Austria!

Demarcation from similar Green List wastes:

- Mixed non-ferrous metal, heavy fraction scrap from shredding of waste end-of-life motor vehicles without hazardous contamination (material mixture) and with a metal content of at least 90% – see **B1050**
- Mixtures of wastes under entries B1010 and B1050 with max. 10% of permissible contamination with other Green List waste – see **section 2a) of Annex IIIA**
- Vessels and other floating structures for breaking up, properly emptied of cargo, and other materials arising from the operation of the vessel classified as a dangerous substance or waste – see **GC030**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Residues from vehicle scrapping operations (light fraction from shredding, fluff) – see **A3120**
- Mixed non-ferrous metal heavy-fraction scrap from shredding of end-of-life vehicles with hazardous contamination such as oil, PCBs (mixed materials) or high non-metallic content such as rubber, plastic, textiles (i.e. more than 10%) – **unlisted waste**
- End-of-life motor vehicles and old car parts still containing hazardous liquids or other hazardous components – **unlisted waste**
- Scrap car bales (compacted in the scrap baling press) without providing evidence of removal of hazardous substances – **unlisted waste**
- Vessels and other floating structures for breaking up, containing hazardous cargoes, and hazardous substances (such as oil, PCBs, asbestos, etc.) – **unlisted waste**

NB: In the case of compacted end-of-life vehicles, environmentally sound recovery of the compacted scrap (without prior disassembly in accordance with the above-mentioned requirements) is made significantly more difficult (steel contamination with non-ferrous heavy metals, resulting air pollution is increased).



Figure 113: Wrecked car without the hazardous substances removed – unlisted waste

Figure 114: Wrecked car without the hazardous substances removed – unlisted waste



Figure 115: Wrecked car without the hazardous substances removed – unlisted waste

Figure 116: Foamed-up end-of-life vehicle without the hazardous substances removed as a container for "spare parts" – unlisted waste



Figure 117: Corroded spare car parts (waste, partially hazardous), loose, without packaging in container together with end-of-life vehicle – unlisted waste

Figure 118: End-of-life vehicle as a container for old refrigerators – unlisted waste



Figure 119: Partially cannibalised wrecked car – unlisted waste

Figure 120: Burnt-out vehicle – unlisted waste

38. WASTE DYES

Designation:
Green List B4010

Waste consisting mainly of water-based/latex paints, inks, and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (see the entry on this in List AA4070)

Other designations:

Emulsion paint waste, ink waste, toner waste, latex paint waste; hardened paints

Physical characteristics: solid, highly viscous/liquid

EWL:

- 08 01 12 waste paint and varnish other than those mentioned in 08 01 11*
- 08 01 14 sludges from paint and varnish other than those mentioned in 08 01 13*
- 08 01 16 aqueous sludges containing paint or varnish other than those mentioned in 08 01 15*
- 08 01 18 wastes from paint or varnish removal other than those mentioned in 08 01 17*
- 08 01 20 aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19*
- 08 03 07 aqueous sludges containing ink
- 08 03 08 aqueous liquid waste containing ink
- 08 03 13 waste ink other than those mentioned in 08 03 12*
- 08 03 15 ink sludges other than those mentioned in 08 03 14*
- 08 03 18 waste printing toner other than those mentioned in 08 03 17*
- 20 01 28 paints, inks, adhesives, and resins other than those mentioned in 20 01 27*

Designation in English:

Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous

Detailed description:

- Emulsion paint waste: the main components are usually water as a solvent, synthetic resin or similar plastics, dyes or pigments, extender, additives such as stabilisers, antifoaming agents, thickening agents, preservatives, and small quantities of organic solvents. Synthetic resin-based emulsions are sometimes mistakenly called latex paints, although they only contain a high percentage of resin and no latex. Besides liquid resin-based emulsion, there are so-called compact paints. Such waste may be classified as Green List waste only if it has no hazardous properties.
- Water-soluble ink waste on the condition that it does not meet a hazardous property (see product information)
- Left-over printer toner and completely cured varnishes, which demonstrably do not exhibit hazardous characteristics (see safety data sheets and the reference to hazard characteristics and classes of dangerous goods)
- Powder coating, free from heavy metals (e.g. on the basis of epoxy resins/polyester or polyester) without hazardous characteristics



Figure 121: Powder coating, free of heavy metals

Demarcation from similar Green List wastes:

- Wastes consisting of food dyes – see **B3120**
- Toner and ink cartridges without residues of hazardous toners and inks (see product information or safety data sheets!) and photoconductor drums without hazardous coatings (e.g. drums with unproblematic OPC (organic photo-conductor) coating or drums with scratch-resistant amorphous silicon or zinc oxide layer – see **GC020**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Hazardous left-over toner residues – see **AD090** or potentially **A4070**
- Toner and ink cartridges with (residues) of hazardous toners and inks and photo-conducting drums with coatings on the basis of selenium, tellurium, arsenic or cadmium compounds – see **A1180**
- Waste lacquer, paint, ink or certain emulsion paints exhibiting hazardous characteristics (in particular, heavy metals, solvents) – see **A4070**

39. FOOD DYE WASTES

Designation:

Green List B3120

Wastes consisting of food dyes

Other designations:

Food dye waste

Physical characteristics: solid, liquid, highly viscous

EWL:

- 02 02 99 wastes not otherwise specified
- 02 03 04 materials unsuitable for consumption or processing
- 02 03 99 wastes not otherwise specified
- 02 04 99 wastes not otherwise specified
- 02 05 99 wastes not otherwise specified
- 02 06 01 materials unsuitable for consumption or processing
- 02 06 99 wastes not otherwise specified
- 02 07 99 wastes not otherwise specified

Designation in English:

Wastes consisting of food dyes

Detailed description:

Only a few dyes (such as beta-carotene and chlorophyll) come from plants. Dyes are generally synthetic imitations of substances found in nature (nature-identical substances) or wholly synthetic compounds.

Special azo dyes are controversial additives. They are considered allergenic and according to some studies are suspected of causing cancer under certain conditions (see the substances in bold-faced print below for more information); quinoline yellow (E 104) is also chemically related to azo dyes.

Overview of food dyes:

Allura Red AC (E 129), Aluminium (E 173), **Amaranth (E 123)**, Anthocyanins (E 163), **Azorubine (E 122)**, Betanin (E 162), **Brown FK (E 154)**, **Brown HT (E 155)**, Brilliant Blue FCF (E 133), **Brilliant Black BN (E 151)**, Calcium carbonate (E 170), Canthaxanthin (E 161g), Carotene (E 160a), Annatto (E 160b), Capsanthin (E 160c), Lycopene (E 160d), Beta-apo-8'-carotenal (E 160e), Beta-apo-8'-carotenic acid ethyl ester (E 160f), Quinoline yellow (E 104), Chlorophyll (E 140), Cochineal (E 120), **Cochineal Red A (E 124)**, Iron oxide (E 172), Erythrosine (E 127), **Orange Yellow S (E 110)**, Gold (E 175), Green S (E 142), Indigotine (E 132), Copper complexes of chlorophylls and chlorophyllins (E 141), Curcumin (E 100), Lactoflavin (E 101), **Litholrubine BK (E 180)**, Lutein (E 161b), Patent Blue V (E 131), Vegetable carbon (E 153), Riboflavin (Vitamin B2) (E 101), Riboflavin-5-phosphate (E 101a), **Red 2G (E 128)**, Silver (E 174), **Tartrazine (E 102)**, Titanium dioxide (E 171), Plain caramel (E 150a), Caustic sulphite caramel (E 150b), Ammonia caramel (E 150c), Sulphite ammonia caramel (E 150d).

Only food dye wastes which do not have any hazardous properties according to the product information are to be classified as Green List waste.

Demarcation from similar Green List wastes:

- Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous – see **B4010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste dyes and paints with hazardous characteristics (because they contain heavy metals, solvents, extreme pH levels, biocide additives, etc.) – see **A4070**

40. DEGRAS

Designation:

Green List B3060

Wastes arising from agro-food industries provided they are not infectious:

Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes

Other designations:

Stuffing from chamoising

Physical characteristics: liquid-solid

EWL:

04 01 09 wastes from dressing and finishing

04 01 99 wastes not otherwise specified

04 02 10 organic matter from natural products (e.g. grease, wax)

07 06 99 wastes not otherwise specified

Designation in English:

Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes

Detailed description:

Degras is the designation for excess fish oil that cannot be absorbed by the leather at chamois tanneries using auto-oxidising fish oil and is therefore washed out with alkali (e.g. soda solution); it is recovered as partially oxidised waste fat precipitated out of the emulsion by using sulphuric acid.

Demarcation from similar Green List wastes:

--- Waste edible fats and oils – see **B3065**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

--- Degras with mineral oil contamination or mineral oil – see **A3020**

41. WASTE EDIBLE FATS/OILS

Designation:

Green List B3065

Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit an Annex III (Basel Convention) characteristic

Other designations:

waste fat from canteens and restaurants; cooking fats, frying fats and oils

Physical characteristics: solid, highly viscous, liquid

EWL:

20 01 25 edible oil and fat

Designation in English:

Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit an Annex III (Basel Convention) characteristics

Detailed description:

- Waste edible oil and fat of animal or vegetable origin (e.g. frying oils) to the extent it is free from hazardous impurities (such as waste mineral oils, PCBs, polychlorinated dibenzodioxins, etc.)
- Refined or pre-treated waste edible oil and fat (e.g. by means of filtration, sedimentation, centrifuging, separation of water)

There are recovery options in the production of loss lubricant and biodiesel production as well as in soap production, for instance.

Demarcation from similar Green List wastes:

- Animal fat (no edible fat) from slaughter, to the extent that it is category 3 material in accordance with the EC Animal By-Product Regulation No 1069/2009 – see **B3060** (other waste from the agro-food industry)

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste edible fats/oils with hazardous contamination (such as waste mineral oils, PCBs, polychlorinated dibenzodioxins, etc.) – **unlisted waste** or **listed according to the hazardous component** of list A (Amber Waste List)
- Waste edible oil / fats from fat separators – see **AC270**
- Separated animal fats and oils from wastewater treatment (fat separation) – **unlisted waste**
- Waste mineral oils – see **A3020**
- Glycerine phase from biodiesel production (consisting of glycerine, free fatty acids, other organic materials (MONG), water, methanol, and potassium hydroxide) – see **A3140**

Note: Glycerine phase is classified as hazardous waste in Austria and subject to the notification procedure pursuant to Article 28 of the EC Waste Shipment Regulation also in cases where the competent authority in the country of destination takes the view that it is a by-product. Glycerine phase from facilities which (also) process category 1 or 2 animal fats is subject to the approval requirements of EC Animal By-Product Regulation No 1069/2009 and thus not to the EC Waste Shipment Regulation when being shipped.

NB: Animal fats from slaughtering which fall under category 1 or 2 or mixtures there of 1+2, 2+3, 1+3, 1+2+3 are not subject to the provisions of the EC Waste Shipment Regulation, since they are subject in any case to the approval requirements of EC Animal By-Product Regulation No 1069/2009.

42. REFRACTORY LININGS

Designation:

Green List B1100

Wastes of refractory linings, including crucibles, originating from copper smelting

Other designations:

refractory materials from copper smelting; crucible fragments from copper (Cu) smelting

Physical characteristics: solid

EWL:

16 11 04 other linings and refractories from metallurgical processes other than those mentioned in 16 11 03*

Designation in English:

Wastes of refractory linings, including crucibles, originating from copper smelting

Detailed description:

Classification under the Green List entry is possibly only for non-hazardous waste refractory linings, including crucibles, from copper smelting. Analysis is required to determine whether it is non-hazardous.

Demarcation from similar Green List wastes:

- Linings and refractories from metallurgical and non-metallurgical processes without hazardous characteristics (e.g. furnace linings and refractory from steel processing) – ceramic wastes – see **GF010**
- Mixtures of wastes from OECD entry GB040 + B1070 + B1100 of the Basel Convention – limited to waste from refractory linings, including crucibles, originating from copper smelting – see **section 2e) of Annex IIIA**

Note: This mixture must not be exported to states to which the OECD Decision does not apply.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Furnace linings, other linings, and refractory materials from metallurgical processes with hazardous characteristics – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Furnace linings from non-metallurgical processes – **unlisted waste** or listed according to the contaminants on list A (Amber Waste List)
- Contaminated crucibles from the smelting of copper that have a hazardous property – **unlisted waste** or listed according to the contaminants on list A (Amber Waste List)
- Crucible linings from aluminium smelting containing inorganic cyan on list A – see **A4050**

NB: After destruction of the cyanide, crucible linings from aluminium smelting should be classified under entry **AB120** (Amber Waste List), since they contain inorganic fluoride compounds, excluding calcium fluoride.

- Heat storage stones from the night storage heaters (often containing chromate) – see **A1040** (Chromium(VI))

43. FILM WASTE (CONTAINING SILVER)

Designation:

Green List B1180

Waste photographic film containing silver halides or metallic silver

Other designations:

Film waste, silver-containing (= contains Ag)

Physical characteristics: solid

EWL:

09 01 07 photographic film and paper containing silver or silver compounds

Designation in English:

Waste photographic film containing silver halides and metallic silver; film waste silver-containing (Ag-containing)

Detailed description:

In the case photographic film containing silver halide or metallic silver, both the plastic layer and silver can be reclaimed.

Demarcation from similar Green List wastes:

- Waste photographic paper containing silver halides and metallic silver – see **B1190**
- Precious metal-containing ash from the incineration of photographic film – see **B1170**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Photographic and fixing chemicals – see **AD090**
- Liquids containing precious metal salts, e.g. silver nitrate (chemicals) – see **A4140**

44. FISH WASTE

Designation:
Green List B3060

Wastes from agro-food industries provided they are not infectious: Fish waste

Other designations:

Wastes of fish; fish meal

Physical characteristics: solid

EWL:

02 01 02 animal-tissue waste

02 02 02 animal-tissue waste

02 02 03 materials unsuitable for consumption or processing

Designation in English:

Fish waste; fish meal

Detailed description:

Various waste of edible fish, for example, but not infectious or contaminated with hazardous substances or waste

NB: The EC Waste Shipment Regulation generally does not apply to shipment of waste is subject to the approval requirements according to Regulation (EC) No 1069/2009 (material in categories 1 and 2).

Fish meal (= processed animal protein: dried and ground fish or parts of fishes) in Category 3 also falls under the approval requirements of the EC Animal By-Product Regulation No 1069/2009 and is thus exempt from the provisions of the EC Waste Shipment Regulation.

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fish waste or fish meal with hazardous contamination such as PCBs, mineral oil, mercury – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)

45. WASTE PHOTOGRAPHIC PAPER (CONTAINING SILVER)

Designation:

Green List B1190

Waste photographic paper containing silver halides or silver in metallic form

Other designations:

silver-containing or (Ag-containing) waste photographic paper

Physical characteristics: solid

EWL:

09 01 07 photographic film and paper containing silver or silver compounds

Designation in English:

Waste photographic paper containing silver halides and metallic silver

Detailed description:

Waste photographic paper containing silver halides or silver in metallic form

Demarcation from similar Green List wastes:

- Ash from the incineration of photographic film – see **B1170**
- Waste photographic film containing silver halides and metallic silver – see **B1180**
- Precious metals (e.g. silver) and alloy waste in a dispersible, non-liquid form with appropriate packaging and labelling (e.g. silver-containing precipitation residues from photographic chemicals) – see **B1150**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Photographic and fixing chemicals – see **AD090**
- Liquids containing precious metal salts, e.g. silver nitrate (chemicals) – see **A4140**

46. GALLIUM SCRAP (NON-DISPERSIBLE)

Designation:
Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Gallium scrap

Other designations:

Waste and scrap of gallium (Ga); "Galinstan" waste (=alloy of gallium, indium, and tin)

Physical characteristics: solid, in metallic non-dispersible form

Gallium has a melting point of 29.76 °C and liquefies at room temperature.

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Waste and scrap of gallium; gallium scrap

Detailed description:

Metallic gallium waste (= non-toxic substitute for mercury in thermometers, heating baths) and gallium alloy waste

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Gallium solder (gallium arsenide amalgams) – see **A1010 or A1030**
- Gallium arsenide in the form of disassembled infrared applications (electronics industry) or wastes from wafers (= thin slices of metal plates of varying size, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) made of gallium arsenide (carcinogenic category 1, reproduction category 1, STOT RE 1) – **unlisted waste**

47. GERMANIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Germanium scrap

Other designations:

waste and scrap of germanium (Ge)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Germanium scrap, waste and scrap of Germanium

Detailed description:

- Germanium components (without housings) from the electronics industry and infrared technology (waste from lens systems and optical glass with diathermic properties – night vision devices)
- Light-alloy scrap

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Electronic scrap (without hazardous characteristics) with germanium components, e.g. transistors – see **GC020**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste from fluorescent tubes with coating (e.g. phosphor) – see **A2010** or **A1030** (Hg)
- Waste of phosphors and pigments – see **A4070**
- Germanium-containing leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc. – see **A1070**
- Germanium-containing waste of zinc residues containing lead and cadmium in concentrations sufficient to exhibit hazardous characteristics – see **A1080**
- Germanium-containing fly dust, fly ash, sludge from exhaust gas purification (primary raw material source for germanium production) – see **A4100**
- Electrical and electronic scrap with germanium components (e.g. transistors) that also contain hazardous components such as batteries, PCB-components, electrolytic capacitors, etc.– see **A1180**
- Germanium-containing catalysts (manufacture of certain polyesters) – see **A2030**

48. GYPSUM (CHEMICALS INDUSTRY)

Designation:

Green List B2080

Waste gypsum arising from chemical industry processes not included on list A (Amber Waste List) (note the related entry on list A, A2040)

Other designations:

industrial gypsum; gypsum from industrial processes

Physical characteristics: solid

EWL:

06 09 04 calcium-based reaction wastes other than those mentioned in 06 09 03*

07 01 12 sludges from on-site effluent treatment other than those mentioned in 07 01 11*

07 01 99 wastes not otherwise specified

Designation in English:

Waste gypsum arising from chemical industry processes not included on list A; industrial gypsum wastes

Detailed description:

This category concerns gypsum waste that has no hazardous or disruptive contamination and accumulates from processes other than flue gas desulphurisation.

Examples:

- Gypsum that accumulates from the production of citric acid, tartaric acid or oxalic acid
- Gypsum that accumulates from caprolactam production or the recovery of dilute acid from titanium dioxide production or phosphor chemistry

Demarcation from similar Green List wastes:

- Waste plasterboard – see **B2040**
- Partially refined gypsum from flue-gas desulphurisation (FGD) – see **B2040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Other sulphate- or sulphite-containing gypsum resulting from cleaning of industrial flue-gases, such as additive desulphurisation – see **A4100**
- Waste gypsum arising from chemical industry processes, with hazardous contamination – see **A2040**
- Unrefined calcium sulphite and calcium sulphate from flue-gas cleaning – see **AB150**
- Plasterboard with hazardous contamination such as PCB-containing coatings – **unlisted waste** or **classified according to the contaminants** (e.g. A3180) on list A (Amber Waste List)

49. PARTIALLY REFINED WASTE GYPSUM (FGD)

Designation:

Green List B2040

Other wastes containing predominately inorganic substances: Partially refined calcium sulphate produced from flue-gas desulphurisation (FGD)

Other designations:

Partially refined flue gas desulphurisation gypsum; partially refined calcium sulphate or partially refined gypsum produced from flue-gas desulphurisation; $\text{CaSO}_4/\text{CaSO}_3$ -mixture

Physical characteristics: solid

EWL:

- 06 06 99 wastes not otherwise specified
- 10 01 05 calcium-based reaction wastes from flue-gas desulphurisation in solid form
- 10 02 08 wastes from gas treatment other than those mentioned in 10 02 07* (iron and steel industry)
- 10 06 99 wastes not otherwise specified (thermal copper metallurgy)

Designation in English:

Partially refined calcium sulphate produced from flue-gas desulphurization (FGD); partially refined gypsum (calcium sulphate) produced from flue-gas desulphurisation (containing also calcium sulphite); partially refined FGD (flue-gas desulphurisation) gypsum

Detailed description:

Partially refined flue-gas desulphurisation gypsum contains gypsum (CaSO_4) and calcium sulphite in a mixture. Due to its chemical and mineralogical composition, recovery is possible in various areas of the gypsum or cement industry in place of natural gypsum or anhydrite, as long as the quality requirements of the gypsum industry are complied with.



Figure 122: Partially refined flue-gas desulphurisation

Demarcation from similar Green List wastes:

- Waste gypsum arising from chemical industry processes without hazardous contamination – see B2080

Demarcation to products:

FGD gypsum is gypsum which is obtained from exhaust from flue gas desulphurisation systems (abbreviation "FGD"). With modern flue gas desulphurisation systems, the gypsum is of high quality (more than 95% calcium sulphate dihydrate) and purity and has such low pollutant contamination that it can largely or even entirely replace natural gypsum, except for a few special applications. FGD gypsum which fulfils certain quality requirements and has no hazardous impurities is to be considered a by-product (subject to registration pursuant to the REACH Regulation). The gypsum industry's requirements for the ingredients for FGD gypsum have been set forth by [the European Umbrella Organisation Eurogypsum](#).

Table: Gypsum industry requirements for FGD gypsum

Property	Requirement (% by mass)
free moisture	< 10 %
CaSO ₄ x 2H ₂ O	> 95 % ¹
Mg salts, water soluble	< 0.10 %
Chloride	< 0.01 %
Na salts, water soluble	< 0.06 %
CaSO ₃ x ½ H ₂ O	< 0.5 %
pH value	5 to 9
Colour	White ²
Odour	Neutral
Toxicity	None

¹ The reduction of the calcium sulphate dihydrate content by inert components has no detrimental effect on various fields of application.

² Colours other than the white colour of FGD gypsum may be accepted, depending on the application.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Other sulphate- or sulphite-containing flue gas desulphurisation products e.g. from additive desulphurisation – see **A4100**
- Waste gypsum arising from chemical industry processes, with hazardous contamination – see **A2040**
- Unrefined calcium sulphite and calcium sulphate from flue-gas desulphurisation (not conforming to specifications) – see **AB150**



Figure 123: Impure gypsum whose recovery is not ensured – AB150

50. GYPSUM PLASTERBOARD

Designation:

Green List B2040

Other wastes containing principally inorganic constituents: Waste gypsum wallboard or plasterboard arising from the demolition of buildings

Other designations:

wastes of gypsum wallboard

Physical characteristics: solid

EWL:

17 08 02 gypsum-based construction materials other than those mentioned in 17 08 01*

Designation in English:

Waste gypsum wallboard or plasterboard arising from the demolition of buildings

Detailed description:

Waste gypsum plasterboard, free from hazardous contamination



Figure 124: Gypsum plasterboard

Demarcation from similar Green List wastes:

- Partially refined calcium sulphate from flue-gas desulphurisation – see **B2040**
- Waste gypsum arising from the chemical industry that is not contained in list A (Amber List) – see **B2080**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Gypsum plasterboard with PCB-containing coatings – see **A3180**
- Gypsum waste arising from the chemical industry with hazardous characteristics – see **A2040**
- Gypsum plasterboard waste with wood-wool lightweight building boards as a carrier material (consisting of wood chips/straw, and mineral binders, especially cement) – **unlisted waste** (composite material)

51. GLASS WASTE (NON-DISPERSIBLE)

Designation:

Green List B2020

Glass waste in non-dispersible form: cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

Other designations:

waste glass, cullet, colourless glass, coloured glass, glass shards, flat glass, broken bottle glass, broken flat glass

Physical characteristics: solid

EWL:

10 11 12 waste glass other than those mentioned in 10 11 11*
 15 01 07 glass packaging
 16 01 20 glass
Note: such flat glass must not be mixed with bottle glass
 17 02 02 glass
 19 12 05 glass
 20 01 02 glass

Designation in English:

Glass waste in non-dispersible form: cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses; white (colourless) glass, stained glass waste; flat glass waste; glass cullets

Detailed description:

- Waste glass, cullet, including waste float glass and automotive glass (laminated glass)
- Cullet from fluorescent lamps, if the bodies of the tubes are demonstrably separated from the ends (lead glass and electrodes), the phosphor is completely removed, and appropriate mercury decontamination is performed using state-of-the-art technology (e.g. the MRT process)
Note: Mere immobilisation of the mercury contamination (e.g. by means of sulphur or sulphide) is not enough in order to subsume cullet from gas discharge lamps under the Green List – see A2010
- Cleaned strontium and barium glass using state-of-the-art technology (i.e. cleaned screen glass from cathode-ray tubes, free from any lead oxide-containing cone glass or funnel glass and mixed glass containing lead oxide) after complete separation of the lead oxide-containing components – see Correspondents' Guidelines No 7 – classification of glass wastes from CRT. The guideline is available on the [website of the European Commission](#).
- Glass packaging waste (separate collection), free from hazardous contamination; the total content of non-hazardous impurities such as plastics, metals, paper, wood and mineral wastes may not exceed a total of 10%.

NB: Bottle glass must not be mixed in with the flat glass or ceramic waste, because otherwise it is impossible to recover. In case of transboundary shipments of glass waste with a content exceeding 10% of non-hazardous impurities with other Green List wastes or whose lead oxide content exceeds 0.3% these are subject to BMLFUW's obligation to notify and consent.



Figure 125: Glass waste (bottle glass)

Figure 126: Glass waste, green (bottle glass)



Figure 127: Glass powder

Figure 128: Flat glass waste

Demarcation from similar Green List wastes:

- Fibre glass waste (in non-dispersible form) – see **GE020**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- (Physically intact) cathode-ray tubes – see **A2010**
- Glass waste from cathode-ray tubes (coated CRT-glass/panel glass, even cleaned glass, if it contains lead, e.g. mixed glass or cone glass) – see **A2010** (cf. Correspondents' Guidelines No 7 – classification of glass waste from CRTs)
- Cleaned glass wastes from monochromatic CRTs (these glass wastes always contain lead oxide)– see **A2010**
- Other activated (coated) glass waste (such as LCDs, whether intact or broken) – see **A2010**
- (Physically intact) plasma screens, as well as glass wastes of plasma screens – see **A2010**
- Small particles and dust of glass containing heavy metals – see **A1020** (e.g. lead glass or antimony glass waste) or potentially **A2010**
- Fluorescent lamps, energy-saving lamps and gas discharge lamps as well as fragments thereof and insufficiently decontaminated glass fractions from the processing of such lamps – see **A1030** (mercury) or **A2010**
- Lead glass waste, lead glass sludge – see **A1020** (or possibly **A2010**)
- Glass wastes containing a silver coating (e.g. wastes from the production of Christmas decorations) – see **A2010** (other coated glass wastes)
- Mirror wastes – see **A2010** (other coated glass wastes)
- Sorted glass waste with a generally high content of pollutants such as plastic, metal, ceramic – **unlisted waste** (mixture)

- Glass packages with hazardous residual contents or fully emptied glass containers that contained substances and preparations that must be labelled with a "skull and crossbones – GHS06" or the "health hazard – GHS08" symbol or the "exploding bomb – GHS01" are hazardous waste and subject to notification and are not to be allocated to the Green Waste List under any circumstances

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



Figure 129: Fluorescent lamp tubes – A1030

Figure 130: Broken mirrors (coated glass) – A2010



Figure 131: Cleaned cathode ray tube waste (containing lead) – A1020 or A2010

Figure 132: Heavily contaminated glass fraction (waste mixture) – unlisted waste

52. GLASS WASTE (SPECIAL GLASS)

Designation:

Green List B 2040

Other wastes containing principally inorganic constituents: Lithium-tantalum and lithium-niobium containing glass scrap

Other designations:

cullet and shards of lithium-tantalum/niobium glass; special glass waste; waste optical glass

Physical characteristics: solid

EWL:

10 11 12 waste glass other than those mentioned in 10 11 11*
 17 02 02 glass
 19 12 05 glass
 20 01 02 glass

Designation in English:

Lithium-tantalum and lithium-niobium containing glass scrap

Detailed description:

Typical composition of lithium-tantalum glass scrap:

60-90 % Ta₂O₅, 1-20 % Nb₂O₅, 1-20 % SiO₂, 5-10 % Li₂O

Typical composition of lithium-niobium glass scrap:

60-90 % Nb₂O₅, 1-15 % Ta₂O₅, 1-10 % SiO₂, 5-10 % Li₂O

Tantalum oxide is used for special glass with a high index of refraction, e.g. for camera lenses.

Demarcation from similar Green List wastes:

--- Glass waste in non-dispersible form (except glass from cathode-ray tubes) – see **B2020**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Glass waste from cathode-ray tubes (including cleaned glass from cathode-ray tubes, containing lead) and other activated (coated) glass (such as liquid crystal displays (LCDs), intact or broken), plasma monitors and small particulates and dust from glass containing heavy metals – see **A2010** or in the case of lead-bearing glass – see **A1020**
- Fluorescent tubes and gas discharge lamps as well as the fragments thereof and insufficiently decontaminated glass from fluorescent tubes and gas discharge lamps – see **A2010** or **A1030** (mercury)
- Lead glass waste, lead glass sludge – see **A1020** or possibly **A2010**
- Other waste of special glass and vitrified waste (as defined in waste treatment) – **unlisted waste**
- Lithium batteries (like all other types of batteries not on the Green List) – see **A1170**

53. FIBRE GLASS WASTES (NON-DISPERSIBLE)

Designation:

Green List GE 020

Glass waste in non-dispersible form: Fibre glass wastes

Other designations:

Glass fibre wastes

Physical characteristics: solid

EWL:

10 11 03 waste glass-based fibrous materials

17 06 04 insulation materials other than those mentioned in 17 06 01* and 17 06 03*

Designation in English:

Fibre glass waste

Detailed description:

Non-dispersible fibre-glass waste (glass wool), free from substances that are hazardous or prevent recovery

NB: Artificial mineral fibres are especially used for thermal insulation because of their high temperature stability. Fibres with a length of $> 5\mu\text{m}$, a diameter of $< 3\mu\text{m}$ and a ratio of length to diameter of > 3 are ascribed a "critical fibre geometry" according to a determination of WHO (World Health Organisation). These fine fibres do have a dispersion risk and are excluded from the Green List. They can cause fibrotic changes when inhaled into the lungs.

Waste from artificial mineral fibers produced in the EU, originating from new building measures (e.g. blends) or production reject, which are cleared and guaranteed by quality seals (such as natureplus, Austrian Ecolabel, Blue Angel or "RAL quality mark" of the Gütegemeinschaft mineral wool), can be classified under the Green List (risk approach). Artificial mineral fibre waste of unknown origin and subject to unknown classification in terms of chemicals legislation (e.g. from demolition measures) must be classified as hazardous waste if there is no evidence of non-hazardousness and excluded from the Green List.

Demarcation from similar Green List wastes:

- Cullet and other glass waste in non-dispersible form – see **B2020**
- Ceramic fibres (non-dispersible, without carcinogenic characteristics) – see **B2030**
- Lithium-tantalum glass scrap and lithium-niobium glass scrap – see **B2040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fibre glass waste in dispersible form and fibre glass waste with hazardous contamination – **unlisted waste** or classified according to contaminants in list A (Amber Waste List)
- Glass grinding sludge or glass dust – **unlisted waste**
- Lead glass dust, sludge – see **A1020** or **A2010**
- Mineral fibre waste of unknown origin and subject to unknown classification in terms of chemicals legislation (e.g. from demolition measures) must be classified as hazardous waste if there is no evidence of non-hazardousness – see **RB020**
- Waste asbestos (dusts and fibres) – see **A2050**



Figure 133: Asbestos fibre – A2050

Figure 134: Rockwool intended for landfill – waste subject to notification

54. RUBBER WASTE (HARD RUBBER, ETC.)

Designation:

Green List B3040

Rubber wastes, provided they are not mixed with other wastes:

- Waste and scrap of hard rubber (e.g. ebonite)
- Other rubber waste (excluding such wastes specified elsewhere)

Other designations:

Hard rubber (ebonite) – waste; soft rubber waste; scrap of waste tyres; hard natural rubber waste; rubber dust; buffings;

Physical characteristics: solid

EWL:

07 02 99 wastes not otherwise specified

16 01 03 end-of-life tyres
Note: scrap tyre shreds only

16 01 22 components not otherwise specified

19 12 04 plastic and rubber
Note: limited to rubber; no mixed rubber and plastic waste

Designation in English:

Rubber wastes, waste and scrap of hard rubber (e.g., ebonite); scrap of waste tyres;

Detailed description:

Soft natural rubber waste; tyre buffing dust (= powder generated by buffing of the tread of waste tyres), if it does not meet specifications and is not subject to any quality control; waste of synthetic rubber (Butyl- caoutchouc (symbol IIR), also isobutene-isoprene rubber), hard rubber waste (hard rubber – ebonite, e.g. used piano keys), as well as rubber gaskets from car windows that are intended for material recovery (e.g. production of crumb-rubber low-noise asphalt, rubber mats) or energy recovery in industrial firing plants (e.g. in the cement industry, brickworks, power plants).

This entry also covers scrap of waste tyres (shredded tyres).

Note: Any potential allocation of scrap of waste tyres to B3080 in other countries is also accepted.

The proportion of permissible contaminations with other Green List wastes may not exceed 10%.

Incineration of rubber waste in waste incineration facilities dedicated to the processing of solid municipal waste, is considered to be a recovery operation if the specified energy efficiency coefficients (EC Waste Framework Directive No 98/2008) are complied with.

NB: The use of scrap of waste tyres as covering material for sludge ponds, landfills, etc. is not considered to be a recovery operation but constitutes disposal operation (subject to notification requirements).



Figure 135: Rubber waste

Demarcation from similar Green List wastes:

- Waste pneumatic tyres (for recovery) – see **B3140**
- Mixtures of waste classified under entry B3040 (rubber waste) of the Basel Convention – see **section 3i) of Annex IIIA**
- Mixtures of wastes under entries B3040 + B3080 – see **section 2c) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Crumb rubber that is used as oil binders – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Rubber asbestos – see **A2050**
- Mixtures of plastic and rubber – **unlisted waste**
- Rubber wastes which contain hazardous substances such as PAH or heavy metals in quantities which constitute a hazard criterion or which contain persistent organic substances (POP) in quantities above the respective limit value in Appendix IV of the EU POP Ordinance (such as short-chain chloroparaffin SCCP) – **unlisted waste** or listing according to contaminants on List A (Amber Waste List)

55. RUBBER WASTE (FRAGMENTS)

Designation:

Green List B3080

Waste parings and scrap of rubber

Other designations:

Rubber scrap, rubber crumbs, other rubber waste (not crumb rubber)

Physical characteristics: solid

EWL:

- 07 02 99 wastes not otherwise specified
- 16 01 22 components not otherwise specified
- 19 12 04 plastic and rubber
Note: limited to rubber, no mixtures with plastics

Designation in English:

Waste parings and scrap of rubber;

Detailed description:

This category includes rubber waste, crumbs, and scraps as well as meal (excluding tyre buffing dust – entry B3040) for material recovery or energy recovery in industrial plants (such as cement factories and power plants).

The proportion of permissible contaminations with other Green List wastes may not exceed 10%.

Note: Scrap of waste tyres should be allocated to entry B3040. However, any potential allocation of scrap tyre shreds to B3080 in other countries is also accepted.

Incineration of rubber wastes and scrap of waste tyres in waste incineration facilities dedicated to the processing of municipal solid waste is considered to be a recovery operation, if the specified energy efficiency coefficients (EC Waste Framework Directive No 98/2008) are complied with.

NB: The use of scrap of waste tyres as covering material for sludge ponds, landfills, etc. is not considered to be a recovery operation (subject to notification requirements).

Demarcation from similar Green List wastes:

- Whole end-of-life tyres (without rims) to the extent not intended for operations defined in Annex IVA of the Basel Convention (note: disposal) – see **B3140**
- Scrap of waste tyres – see **B3040**
- Hard rubber waste (ebonite) and other rubber waste – see **B3040**
- Tyre buffing dust (= powder generated by buffing of the tread of waste tyres), if it does not meet specifications and is not subject to quality control – see **B3040**
- Synthetic rubber waste - see **B3040**
- Mixtures of waste classified under entries B3040 + B3080 of the Basel Convention – see **section 2c) of Annex IIIA**
- Mixtures of waste classified under entry B3040 (rubber waste) of the Basel Convention – see **section 3i) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Contaminated rubber wastes which were used as an absorption agent for hazardous chemicals or wastes – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Mixtures of plastic and rubber wastes – **unlisted waste**
- Mixtures of textile fibres and rubber wastes from treatment of waste tyres – **unlisted waste**
- Shredder light fraction – see **A3120**
- Thermal fraction of heavily contaminated plastic and rubber wastes – **unlisted waste**
- Rubber-asbestos waste – see **A2050** or **unlisted waste**
- Rubber waste which contains hazardous substances such as PAH or heavy metals in quantities which constitute a hazard criterion or which contain persistent organic substances (POP) in quantities above the respective limit value in Appendix IV of the EU POP Ordinance (such as short-chain chloroparaffin SCCP) – **unlisted waste** or listing according to contaminants on List A (Amber Waste List)



Figure 136: Thermal fraction (heavily contaminated plastic rubber fraction) – unlisted waste

56. HAIR (HUMAN)

Designation:

Green List B3070

Waste of human hair

Other designations:

hair waste; human hair

Physical characteristics: solid

EWL:

There is no specific entry for human hair waste in the European List of Waste, at most allocation to 16 03 06 Organic wastes other than those mentioned in 16 03 05*

Designation in English:

Waste of human hair

Detailed description:

Human hairs are long filaments mainly consisting of keratin.



Figure 137: Waste of human hair

Demarcation from similar Green List wastes:

- Waste of wool or of fine or coarse animal hair – see **B3030**
- Waste of pigs' hogs' or boars' bristles or of badger hair and other animal hair used to make brooms, hair brushes, and paint brushes – see **GN010**
- Fellmongery wastes (fur) – see **B3110**
- Horsehair waste, whether or not put up as a layer with or without supporting material – see **GN020**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fellmongery wastes with hazardous contaminant (hexavalent chromium, biocides, infectious substances) – see **A3110**

57. HAIR (ANIMAL)

Designation:

Green List GN010

ex 0502 00 Waste of pig, hog, or boar bristles or of badger hair and other brush-making hair

Other designations:

animal hair; animal bristles

Physical characteristics: solid

EWL:

- 02 02 02 animal-tissue waste
- 02 02 03 materials unsuitable for consumption or processing
- 04 01 09 wastes from dressing and finishing
- 04 01 99 wastes not otherwise specified

Designation in English:

Waste of pigs', hogs' or boars' bristles and hair or of badger hair and other brush making hair

Detailed description:

Bristles are a special form of hair. They are stiff top hair (fur hair) with split ends. Bristles form the coat of hair of porcines. Waste of pig, hog or boar bristles or of badger hair and other animal hair used to make brooms, hair brushes, and paint brushes comes within this entry.

Demarcation from similar Green List wastes:

- Fellmongery wastes (fur) – see **B3110**
- Waste of wool or of fine or coarse animal hair – see **B3030**
- Horsehair waste, whether or not put up as a layer with or without supporting material – see **GN020**
- Waste of human hair – see **B3070**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fellmongery wastes with hazardous contamination (hexavalent chromium, biocides, infectious substances) – see **A3110**

Waste of categories 1 and 2 in accordance with the EC Animal By-Product Regulation No 1069/2009, as amended, is exempt from the provisions of the EC Waste Shipment Regulation.

58. HAIR (FEATHERS)

Designation:
Green List GN030

ex 05 05 90 Waste from skins and other parts of birds, with their feathers or down, feathers and parts of feathers (whether or not with trimmed), down raw or slightly cleaned, disinfected or treated with preservatives

Other designations:

Down and feather waste, waste from bird parts; (possibly feather meal)

Physical characteristics: solid

EWL:

- 02 02 02 animal-tissue waste
- 02 02 03 materials unsuitable for consumption or processing
- 04 01 09 wastes from dressing and finishing
- 04 01 99 wastes not otherwise specified

Designation in English:

Waste of skins and other parts of birds, with their feathers or down, of feathers and parts of feathers (whether or not with trimmed edges) and down, not further worked than cleaned, disinfected or treated for preservation

Detailed description:

The trade restrictions under veterinary law concerning parts of birds and feathers must be complied with.

This category includes the following items, for example:

- Duck, turkey or chicken feathers, etc.

Processed animal proteins (feather meal) in animal carcass recycling facilities are also classified as category 3 material and are subject to veterinary permit requirements in accordance with EC Animal By-Product Regulation No 1069/2009 and therefore are exempt from the provisions of the EC Waste Shipment Regulation.

Demarcation from similar Green List wastes:

- Waste of pig, hog or boar bristles or of badger hair and other animal hair used to make brooms, hair brushes, and paint brushes – see **GN010**
- Waste of wool or of fine or coarse animal hair – see **B3030**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fellmongery waste with hazardous contamination (hexavalent chromium, biocides, etc.) – see **A3110**

Waste of categories 1 and 2 in accordance with the EC Animal By-Product Regulation No 1069/2009, as amended, is exempt from the provisions of the EC Waste Shipment Regulation.

59. HAIR (FUR)

Designation:
Green List B3110

Fellmongery waste not containing hexavalent chromium compounds or biocides (see the entry on this in List A, A3110)

Other designations:

fur waste, hide waste

Physical characteristics: solid

EWL:

04 01 09 wastes from dressing and finishing

04 01 99 wastes not otherwise specified

Designation in English:

Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances

Detailed description:

A pelt is a hide removed from a slaughtered mammal, generally with short but very dense hair. Waste from fellmongery that contains no hexavalent chromium compounds or biocides (pelt scraps) fall under this entry.



Figure 138: Fur

Demarcation from similar Green List wastes:

- Parings and other wastes of leather or of composition leather – see **B3090**
- Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides – see **B3100**
- Waste of pig, hog or boar bristles or of badger hair and other animal hair used to make brooms, hair brushes, and paint brushes – see **GN010**
- Waste of wool or of fine or coarse animal hair – see **B3030**
- Horsehair waste, whether or not put up as a layer with or without supporting material – see **GN020**
- Waste of human hair – see **B3070**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances – see **A3110**
- Chemical wastes that were used for fellmongery – see **A4140** or **unlisted waste** or classified according to the chemicals on list A (Amber Waste List)

Waste of categories 1 and 2 in accordance with the EC Animal By-Product Regulation No 1069/2009, as amended, is exempt from the provisions of the EC Waste Shipment Regulation.

60. HAIR (HORSE)

Designation:

Green List GN020

ex 0503 00 Horsehair waste, whether or not put up as a layer with or without supporting material

Other designations:

horsehair waste

Physical characteristics: solid

EWL:

- 02 02 02 animal-tissue waste
- 02 02 03 materials unsuitable for consumption or processing
- 04 01 09 wastes from dressing and finishing
- 04 01 99 wastes not otherwise specified

Designation in English:

Horsehair waste, whether or not put up as a layer with or without supporting material

Detailed description:

Horsehair waste (possible with skin residues), whether or not put up as a layer with or without supporting material, must contain only material that falls into category 3 of the EC Animal By-Product Regulation No 1069/2009.

Demarcation from similar Green List wastes:

- Waste of pigs', hogs' or boars' bristles or of badger hair and other animal hair used to make brooms, hair brushes, and paint brushes – see **GN010**
- Fellmongery wastes (fur) – see **B3110**
- Waste of wool or of fine or coarse animal hair – see **B3030**
- Waste of human hair – see **B3070**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fellmongery waste with hazardous contamination (hexavalent chromium, biocides, etc.) – see **A3110**

Waste of categories 1 and 2 in accordance with the EC Animal By-Product Regulation No 1069/2009, as amended, is exempt from the provisions of the EC Waste Shipment Regulation.

61. HAFNIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Hafnium scrap

Other designations:

wastes and scrap of hafnium (Hf)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Hafnium scrap, waste and scrap of Hafnium

Detailed description:

Various wastes of hafnium alloys

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10%, is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Hafnium is usually present in the form of hafnium carbide in hard metals (residues of refractory metals) – see **B1030**
- Spent hafnium-containing catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex II**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Dispersible hafnium waste (dust and ash) – **unlisted waste**
- Spent hafnium-containing catalysts (contaminated) – see **A2030**

NB: Hafnium is pyrophoric. Shavings and dust of metallic hafnium ignite when exposed to air. Radioactive contaminated hafnium waste and activated hafnium – Observe the radiation protection provisions!

62. HARD ZINC SPELTER

Designation:

Green List B1100

Metal-bearing wastes arising from melting, smelting, and refining of metals: Hard zinc spelter

Other designations:

hard zinc waste; hard zinc from hot-dip galvanising

Physical characteristics: solid

EWL:

11 05 01 hard zinc

Designation in English:

Hard zinc spelter

Detailed description:

Hard zinc is a zinc-iron alloy with approximately 90–95% zinc (spelter) that originates during hot-dip galvanising.



Figure 139: Hard zinc spelter

Demarcation from similar Green List wastes:

- Zinc ash and residue including residue of zinc alloys in dispersible form, to the extent that they do not have hazardous property H4.3 pursuant to the Basel Convention and do not contain components (cf. lead, cadmium) mentioned in Annex I (Basel Convention) in such concentrations that they exhibit one of the characteristics defined in Annex III (Basel Convention) – see **B1080**
- Zinc dross/skimmings, zinc-containing top slag – see **B1100**
- Mixtures of wastes of OECD entry GB040 + B1100 of the Basel Convention restricted to: hard zinc waste, zinc-containing drosses, aluminium drosses (or skimmings), except salt slag, waste from fire-resistant linings, including melting pots from the smelting of copper – see **section 2d) of Annex IIIA**
Note: This mixture may not be exported to countries to which the OECD Decision does not apply.

NB: Zinc skimmings containing less than 40.5% metallic zinc require notification and approval in case of transboundary shipment.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Hard zinc waste with a hazardous property – see **A1080** in case of higher content of lead and/or cadmium or **unlisted waste**

63. RESINS

Designation:
Green List: B3010

Plastic or mixed plastic materials provided they are not mixed with other wastes and are prepared to a specification:
Cured waste resins or condensation products

Other designations:

Resin waste, epoxy resin waste, melamine resin waste, urea formaldehyde resins (UF), phenol formaldehyde resins (PF), melamine formaldehyde resins (MF), epoxy resins (EP), alkyd resins, polyamides (PA)

Physical characteristics: solid

EWL:

- 02 01 04 waste plastics (except packaging)
- 07 02 13 waste plastic
- 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09*
- 12 01 05 plastics shavings and turnings
- 15 01 02 plastic packaging
- 16 01 19 plastics
- 16 03 06 organic wastes other than those mentioned in 16 03 05*
- 17 02 03 plastic
- 19 09 05 saturated or spent ion exchange resins
- 19 12 04 plastic and rubber (note: limited to plastics)
- 20 01 39 plastics
- 20 01 28 paints, inks, adhesives and resins other than those mentioned in 20 01 27*
note: restricted to synthetic resins

Designation in English:

Cured waste resins or condensation products, urea formaldehyde resins, phenol formaldehyde resins, melamine formaldehyde resins, epoxy resins, alkyd resins, polyamides

Detailed description:

The above list of waste resins and condensation products is open-ended. This means that waste resins other than those explicitly mentioned may be classified as Green List waste, if appropriate. The waste resin must not have any hazardous contamination.

Only cured, solid resins (polymer waste) or condensation products, including the following substances:

- urea formaldehyde resins (UF)
- phenol formaldehyde resins (PF)
- melamine formaldehyde resins (MF)
- epoxy resins (EP)
- alkyd resins
- polyamides (PA)

The proportion of permissible contaminations with other Green List wastes may not exceed 10%, however the proportion of PVC (entry: GH013) is limited to 5%. The proportion of treated wood waste (Amber List waste) is limited to max. 1%.

Demarcation from similar Green List wastes:

- Fluorinated plastic waste or plastic waste of non-halogenated polymers and copolymers – see **B3010**
- Polyvinyl chloride (PVC) – see **GH013**
- Wastes from production, formulation and use of resins, latex, plasticisers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III (Basel Convention) characteristics, e.g. water-based products or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols – see **B4020**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "scrap plastic of non-halogenated polymers and co-polymers" – see **section 3d) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "cured waste resins or condensation products" – see **section 3e) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "perfluoroalkoxy alkanes" – see **section 3f) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste resin and polymers as a component of mixed commercial waste – **Y46** (waste collected from households)
- Plastic wastes containing more than 10 % of non-hazardous impurities or more than 5 % of PVC - **unlisted waste**
- Resins that are not fully cured and other wastes from production, formulation, and use of resins, latex, plasticisers or glues/adhesives (other than the wastes mentioned on List B, B4020) – see **A3050**
- Waste plastic or resin with hazardous contamination – **unlisted waste** or classified according to the relevant contaminants in list A (Amber Waste List)
- Plastic packaging with hazardous residual contents or emptied plastic packaging which contained substances and preparations that according to chemical legislation, must be labelled with a "skull and crossbones – GHS06" or the "health hazard – GHS08" symbol or the "exploding bomb – GHS01" – see **A4130**
- Ion exchange resins with hazardous contamination – see **AD120**
- Resin and polymer wastes which contain hazardous substances such as PAH or heavy metals in quantities which constitute a hazard criterion or which contain persistent organic substances (POP) in quantities above the respective limit value in Appendix IV of the EU POP Regulation (such as short-chain chloroparaffin (SCCP) or polybrominated diphenylethers) – **unlisted waste** or listing according to contaminants on List A (Amber Waste List)

NB: The use of cured resin wastes as cover material for sludge ponds, landfills, etc. is not a recovery operation (notification obligation – disposal).

64. RESINS/ADHESIVES (SOLVENT-FREE)

Designation:

Green List B4020

Wastes from production, formulation, and use of resins, latex, plasticisers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III (Basel Convention) characteristics, e.g. water-based products, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A, A3050)

Other designations:

glues; waste of water-soluble glue based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols

Physical characteristics: solid-highly viscous

EWL:

- 07 02 17 waste containing silicones other than those mentioned in 07 02 16*
- 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09*
- 08 04 12 adhesive and sealant sludges other than those mentioned in 08 04 11*
- 08 04 14 aqueous sludges containing adhesives or sealant, other than those mentioned in 08 04 13*
- 08 04 16 aqueous liquid wastes containing adhesives or sealants other than those mentioned in 08 04 15*
- 08 04 99 wastes not otherwise specified
- 20 01 28 paints, inks, adhesives, and resins other than those mentioned in 20 01 27*

Designation in English:

Wastes from production, formulation and use of resins, latex, plasticisers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III (Basel Convention) characteristics, e.g., water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols

Detailed description:

This refers to non-hazardous wastes of resins, latex, plasticisers, glues/adhesives which do not contain any solvents or other hazardous components or contaminations. These could include water-soluble adhesive wastes of plant origin (starch, dextrin, sago or tapioca glue), synthetic origin (cellulose ether, polyvinyl alcohols) or animal origin (skin, leather, bone and casein glue).

Demarcation from similar Green List wastes:

- Plastic waste and cured waste resins or condensation products – see **B3010**
- Certain polymer ethers – see **B3130**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Hazardous wastes from production, formulation and use of resins, latex, plasticisers, glues/adhesives (e.g. varnish sludge, plastic sludge, solvent-containing adhesives, uncured phenol resins) – see **A3050**

65. WOOD/CORK WASTES

Designation:

Green List B3050

Untreated cork and wood waste:

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
- Cork waste: Crushed, granulated or ground cork and cork panels

Other designations:

untreated cork and wood waste

Physical characteristics: solid

EWL:

- 03 01 01 waste bark and cork
- 03 01 05 sawdust, chips, cuttings, wood, particle board and veneers other than those mentioned in 03 01 04
Note: Chipboards are chemically treated wood and may not be classified as Green List waste, since entry on the Green Waste List is only limited to mechanically processed waste wood.
- 03 03 01 waste bark and wood
- 15 01 03 wooden packaging
- 17 02 01 wood
- 19 12 07 wood other than that mentioned in 19 12 06*
- 20 01 38 wood other than that mentioned in 20 01 37*

Englische Designation:

Untreated cork and wood waste, wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms, cork waste, crushed, granulated or ground cork

Detailed description:

Pursuant to [EU Correspondents' Guidelines](#) No 5, which is available on the website of the German Ministry of the Environment, wood wastes containing wood which was processed other than purely mechanically at any time are incorrectly classified as entry B3050. As such, only untreated wood (or bark) i.e. natural wood (or bark) which was not chemically treated (no paint, stain, impregnation, coating, compression with chemical additives or use of adhesives, etc.) may be classified under B3050. The same applies accordingly to cork waste.

In Austria, an average mass proportion of 1% is applied as the tolerance value for contaminants from chemically treated waste wood (or bark) in untreated waste wood (or bark) from Green List B3050. These tolerance values also apply to cork waste.

- Untreated cork waste such as crushed cork scrap, ground cork, and cork panels
- Wood shavings evidently made of chemically untreated wood
- Standard Euro pallet waste from solid wood (generally natural wood of "A1 quality")
- Wood waste from non-chemically treated fresh wood

Sawmill by-products – non-waste

Sawdust or wood chips from clean, non-chemically treated wood from the processing (sawmill) are considered by-products from sawmills. Bark and fresh wood from forestry management are considered products (note: In the case of bark, phytosanitary requirements must be taken into account). Due to the intention to discard it, bark from landscape conservation and horticulture is, as a rule, to be classified as waste.

Chemically untreated wood waste agglomerated in pellets, briquettes or similar forms (using injection pressure without adding chemical binders; sometimes natural binders such as starch or molasses are used) are considered to be non-waste if they are intentionally produced as a fuel, especially if they are in compliance with product standards such as ÖNORM M 7135 Testing requirements for wood pellets, DIN 51731 Testing of solid fuels – agglomerates made of untreated wood – Requirements and testing or certification program DIN and/or fuel specifications in the series of standards of the European Pellet Standard EN 14961 (exclusively the requirements for chemically treated raw materials for wood chips) or the requirements for waste fuel products made of wood as defined by Annex 9 of the Waste Incineration Ordinance.

Recycling wood products (end-of-waste in the case of the intentional use of recycling wood) according to Annex 3 of the Recycling Wood Ordinance also do not constitute waste.

NB: In any case, the status in the country of destination must be checked before shipping across borders (see Article 28 of the EC Waste Shipment Regulation – the stricter procedure takes precedence).



Figure 140: Fresh wood only mechanically treated – product

Figure 141: Mechanically treated waste wood

Demarcation from similar Green List wastes:

- Mixtures of wastes under entries B3050 – see **section 3j) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Wastes of (chemically) treated wood (or bark) and cork – see **AC170**
- Mixtures of untreated waste wood (or bark) and/or untreated cork which contain more than 1% of chemically treated waste wood (or bark) and/or cork – see **AC170**
- Chipboard waste or mixtures of non-chemically treated wood with chipboard – see **AC170**
- Railway sleepers and salt- and oil-impregnated poles – see **AC170**
- Varnished and impregnated wood (e.g. old wooden windows and window parts) – see **AC170**
- Wood shavings made of chemically treated wood – see **AC170**
- Pellets or briquettes made of chemically treated wood (e.g. containing chemical binders, glues or lacquer and paint residues) – see **AC170**
- Waste from pallets, particularly those from composite materials or with pressure-impregnation or containing banned wood preservatives (manufactured in third countries) – see **AC170**
- (Pelletised) waste fuel mixtures of pretreated household or similar commercial waste (fuel made of waste or RDF (refuse-derived fuel) or SRF (solid recovered fuel/specified recovered fuel)) – **unlisted waste** or potentially **Y46** (household waste)



Figure 142: Chemically treated waste wood – AC170



Figure 143: Chemically treated waste wood – AC170



Figure 144: Chemically treated waste wood – AC170



Figure 145: Railway sleepers – AC170



Figure 146: Waste wood with high content of treated waste wood, fine particles and contaminants – AC170



Figure 147: Fuel from mixed commercial waste in pellet form ("RDF" – refuse derived fuel) – unlisted waste or Y46

66. INDIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Indium scrap

Other designations:

wastes and scrap of indium (In)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Indium scrap, waste and scrap of Indium

Detailed description:

--- Indium solder waste (e.g. Indium/tin alloys)

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Lead solders and babbitt metal (with indium as alloy component) – see **B1020**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Phosphors and pigments – see **A4070**
- Indium compounds (salts), provided they occur as chemical waste – see **A4140**, otherwise **unlisted waste**
- Waste from indium phosphide wafers (i.e. thin metal plates/discs of varying sizes, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) or waste from photovoltaic elements made of indium phosphide (carcinogenic category 1, reproductive category 2, STOT RE1) – **unlisted waste**

Radioactive contaminated scrap and activated indium – Observe radiation protection provisions!

67. WASTE CABLES

Designation:

Green List B1115

Waste metal cables coated or insulated with plastics, not included on list A, A1190, excluding those destined for operations defined in Annex IV (Basel Convention) Section A (disposal operations) or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning

Other designations:

cable waste, plastic cable waste

Physical characteristics: solid

EWL:

16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*

17 04 11 cables other than those mentioned in 17 04 10*

Designation in English:

Waste metal cables coated or insulated with plastics (not included on list A, A1190, excluding those destined for Annex IVA (Basel Convention) operations or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning)

Detailed description:

- Cable waste from the production of new cables
- Cable waste of known origin, which is known not to be contaminated with PCBs, oils, prohibited polybrominated flame retardants, short-chain chloroparaffins (SCCP), etc.
- Underground cables from modern production without hazardous components such as PCBs, petrolatum filling or creosotes



Figure 148: Telephone cable waste

Figure 149: Computer cable waste

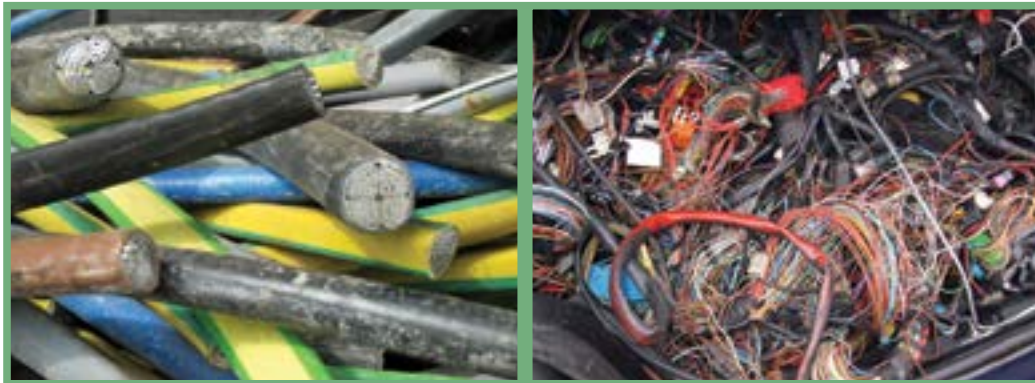


Figure 150: Underground cables without hazardous components

Figure 151: Mixed cable waste

Demarcation from similar Green List wastes:

- Non-hazardous electronic scrap mixed with Green List device cables – see **GC020**
Note: reference is made to the precedence of a stricter classification as unlisted mixture of GC020 + B1115 as per Article 28 of the EC Waste Shipment Regulation in other countries.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Cable of unknown origin, e.g. old PVC cables containing PCBs, mineral oil/petrolatum in the cable sheathing or cables with oil-permeated paper insulator coatings – see **A1190** (separate entry)
- Underground cables, cables impregnated with tar, PCB, petrolatum or mineral oils – see **A1190** (separate entry)
- High-voltage cables, e.g. made of PVC with polybrominated flame retardant content higher than that indicated in Annex IV of the EU POP Regulation (total bromine content greater than or equal to 2,000 mg/kg) – **unlisted waste**



Figure 152: Cable waste with hazardous components – A1190

Figure 153: Cable waste with hazardous components – A1190



Figure 154: Cable waste with hazardous components – A1190

Figure 155: Cable waste with hazardous components – A1190

68. COCOA WASTE

Designation:
Green List B3060

Wastes from agro-food industries provided they are not infectious: Cocoa shells, husks and other cocoa waste

Other designations:

Cocoa waste

Physical characteristics: solid

EWL:

02 03 04 materials unsuitable for consumption or processing

02 03 99 wastes not otherwise specified

Designation in English:

Cocoa shells, husks and other cocoa waste

Detailed description:

Cocoa shells, husks and other cocoa waste, cocoa scrap

Comment:

For further processing, the cocoa beans are toasted just like coffee until the outer husk becomes brittle and easy to remove. It is through the toasting process that the full aroma can unfold. The lighter husk is then removed from the core using a fan similar to the corn cleaning machine (used for manufacturing coffee surrogate, etc.).

Demarcation from similar Green List wastes:

- Dried and sterilised vegetable waste, residues and by-products, whether or not in the form of pellets or a kind used in animal feeding, not elsewhere specified or included – see **B3060**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Cocoa waste contaminated with hazardous substances and other contaminated plant waste – **unlisted waste** or classified according to the contaminants in list A (Amber Waste List)

69. LIME STONE

Designation:

Green List B2040

Other wastes containing predominately inorganic substances: Calcium carbonate from the production of calcium cyanamide (having a pH less than 9)

Other designations:

Limestone from calcium cyanamide or fertiliser production

Physical characteristics: solid

EWL:

06 03 14 solid salts and solutions other than those mentioned in 06 03 11* and 06 03 13*

06 10 99 wastes not otherwise specified

Designation in English:

Limestone from the production of calcium cyanamide (having a pH less than 9); limestone from the production of fertilizer (pH < 9)

Detailed description:

Calcium carbonate (limestone) from the production of calcium cyanamide (pH < 9)

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Calcium carbonate from the production of calcium cyanamide or other processes with hazardous contamination or having a pH greater than 9 – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)

70. CATALYSTS (PRECIOUS METAL)

Designation:

Green List B1130

Cleaned, spent precious-metal-bearing catalysts

Other designations:

Precious metal catalyst waste

Physical characteristics: solid, sludgy (semi-solid)

EWL:

16 08 01 spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07*)

Designation in English:

Cleaned spent precious-metal-bearing catalysts

Detailed description:

--- Automotive catalytic converters

Note: classified in the Amber List in certain EU Member States! The precedence of the stricter procedure as per Article 28 of the EC Waste Shipment Regulation is decisive.

--- Hydrogenation catalysts for heterogeneous catalysis based on a precious metal, without hazardous contamination

--- Precious-metal-bearing conversion catalysts

--- Cleaned platinum-rhodium catalysts from the synthesis of nitric acid (Ostwald process)

If catalysts are not classifiable under the Amber Waste List because of their contamination (e.g. resulting from the process which they have been used for), they are subject to the provisions for Green Listed waste, even if they are classifiable as hazardous because of their intrinsic (i.e. substance-specific) characteristics as catalysts.



Figure 156: Ceramic monoliths from the dismantling of end-of-life vehicles – Amber List in certain EU Member States

Demarcation from similar Green List wastes:

- Precious-metal-bearing waste in dispersible form – see **B1150**
- Spent fluid catalytic cracking catalysts (e.g. aluminium oxide, zeolites) without hazardous contamination – see **GC050**
- Cleaned, spent catalysts containing transition metals or rare earth metals – see **B1120**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Liquids that were used as catalysts – see **A2030** or more specific entries for the liquids in list A (Amber Waste List)
- Mercury- and cadmium-containing catalysts – see **A2030**
- Spent, precious metal-bearing catalysts, to the extent they have hazardous contamination (e.g. with high quantities of hydrocarbons, polycyclic aromatic hydrocarbons [PAH]) – see **A2030**
- Spent transition metal-containing or rare earth metal-containing catalysts with hazardous contamination – see **A2030**

71. CATALYSTS (TRANSITION METALS)

Designation:
Green List B1120

Spent catalysts, excluding liquids used as catalysts, containing any of:

Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:

Scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum, tantalum, rhenium

Lanthanides (rare earth metals): lanthanum, praseodymium, samarium, gadolinium, dysprosium, erbium, ytterbium, cerium, neodymium, europium, terbium, holmium, thulium, lutetium

Other designations:

Spent catalysts or catalyst waste containing scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum, tantalum, rhenium or lanthanides (rare earth metals): lanthanum, praseodymium, samarium, gadolinium, dysprosium, erbium, ytterbium, cerium, neodymium, europium, Terbium, holmium, thulium, lutetium

Physical characteristics: solid (highly viscous)

EWL:

16 08 03 spent catalysts containing transition metals or transition metal compounds not otherwise specified

16 08 02* spent catalysts containing dangerous transition metals or dangerous transition metal compounds

Note: Transition metals and their compounds are considered as hazardous if they are classified as hazardous substances. Thus, the classification as a hazardous substance determines which transition metals and transition metal-containing compounds constitute hazardous waste.

There is no specific entry in the European List of Waste for catalysts which contain lanthanides (rare earth metals). For that reason, they are assigned to 16 08 03 (catalysts containing transition metals).

Designation in English:

Spent catalysts excluding liquids used as catalysts, containing any of:

Transition metals excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:

Scandium, Vanadium, Manganese, Cobalt, Copper, Yttrium, Niobium, Hafnium, Tungsten, Titanium, Chromium, Iron, Nickel, Zinc, Zirconium, Molybdenum, Tantalum, Rhenium

Lanthanoides (rare earth metals): Lanthanum, Praseodymium, Samarium, Gadolinium, Dysprosium, Erbium, Ytterbium, Cerium, Neodymium Europium, Terbium, Holmium, Thulium, Lutetium

Detailed description:

If catalysts are not classifiable under the Amber Waste List because of their contamination (e.g. mineral oil residues), they are subject to the provisions for Green Listed waste, even if they were classifiable as hazardous because of their intrinsic (i.e. substance-specific) characteristics of the catalyst (e.g. carcinogenic nickel content of a nickel catalyst).

In the European List of Waste, spent catalysts containing hazardous transition metals or transition metals compounds are mentioned as hazardous waste.

Nevertheless, such catalysts are classifiable as Green List waste to the extent that they are not further contaminated with other hazardous substances (e.g. mineral oil, tar residues, etc.).

NB: However, there are different views throughout Europe concerning classification in the Green or Amber Waste List. Reference is made to Article 28 of the EC Waste Shipment Regulation (the stricter classification takes precedence).

Examples for the Green Waste List:

- Nickel catalysts from edible oil hydration
- Cleaned catalysts mixed with iron(II)-(III) oxides from Haber Bosch synthesis (synthetic manufacture of ammonia)
- Samarium oxide catalysts from the hydrogenation and dehydrogenation of alcohol
- Cleaned lanthanum catalysts from petroleum and petrol cracking (the mineral oil content or other contaminants such as PAH etc. must, in no event, exceed the limit values set forth in the List of Waste Ordinance, as amended)

Note: Stricter limit values for mineral oil contamination established in other countries must be followed in any case.

Demarcation from similar Green List wastes:

- Cleaned spent catalysts containing precious metals – see **B1130**
- Spent fluid catalytic cracking catalysts (e.g. aluminium oxide, zeolites) – see **GC050**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Liquids that were used as catalysts (e.g. sulphuric acid or metallic organic compounds) – see **A2030** or more specific entries for the relevant liquids in list A (Amber Waste List)
- Cadmium- and mercury-bearing catalysts – see **A2030**
- Spent metal-containing catalysts of all types, to the extent that they have hazardous contamination (e.g. with hydrocarbons or polycyclic aromatic hydrocarbons [PAH]) – see **A2030**



Figure 157: Vanadium catalyst with hazardous contaminants – A2030

Figure 158: Enlarged illustration of vanadium catalyst with hazardous contaminants – A2030

72. CATALYSTS (ZEOLITES)

Designation:

Green List GC050

Spent fluid catalytic cracking catalysts (e.g. aluminium oxide, zeolites)

Other designations:

Aluminium oxide catalysts; zeolite catalysts

Physical characteristics: solid

EWL:

16 08 04 spent catalysts from cracking processes (except 16 08 07*)

Designation in English:

Spent Fluid Catalytic Cracking (FCC) Catalysts (e.g.: aluminium oxide, zeolites)

Detailed description:

This category includes mainly aluminium silicates (zeolites) or aluminium oxide used as catalysts. They are classifiable as Green List waste on the condition that the catalysts are not contaminated with mineral oil or other hydrocarbons or other hazardous substances to an extent to render them hazardous.

Demarcation from similar Green List wastes:

- Cleaned spent catalysts containing transition metals and rare earth metals – see **B1120**
- Cleaned spent catalysts containing precious metals – see **B1130**
- Carborundum (aluminium oxide) – see **B2040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste catalysts of zeolite and aluminium oxide contaminated with hydrocarbons or other hazardous substances to such an extent as to render them hazardous – see **A2030**

73. CERAMIC WASTE (NON-DISPERSIBLE)

Designation:

Green List GF010

Ceramic waste in non-dispersible form:

Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use)

Other designations:

Broken ceramics, waste ceramic products (broken crockery), bricks, roofing tiles, wall or floor tiles, terracotta waste

Physical characteristics: solid

EWL:

10 12 06 discarded moulds

10 12 08 waste ceramics, bricks, tiles and construction products (after incineration)

17 01 02 bricks

17 01 03 tiles and ceramics

16 11 04 linings and refractories from metallurgical processes other than those mentioned in 16 11 03*

16 11 06 linings and refractories from non-metallurgical processes other than those mentioned in 16 11 05*

Designation in English:

Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use)

Detailed description:

- Broken ceramic products (e.g. crockery)
- Roofing tiles, bricks, wall and floor tiles
- Furnace linings and refractories from metallurgical and non-metallurgical processes shown to be without hazardous characteristics (e.g. furnace linings from steel processing)



Figure 159: Scrap bricks

Figure 160: Ceramic waste



Figure 161: Ceramic waste from the production of ceramic grinding discs

Figure 162: Scrap bricks

Demarcation from similar Green List wastes:

- Waste from fire-resistant linings, including crucibles pots from the smelting of copper (with contamination and hazardous properties) – see **B1100**
- Ceramic-based fibres not elsewhere specified or included, in non-dispersible form – see **B2030**
- Cermet waste and scrap (metal ceramic composites) – see **B2030**
- Mixtures of waste under entry **B2030** in non-dispersible form (i.e. cermets and ceramic-based fibres not elsewhere specified or included) – see **section 3c) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Furnace linings from metallurgical or non-metallurgical processes with hazardous contamination – **unlisted waste** or listed according to the contaminants on list A (Amber Waste List)
- Storage stones from night storage heaters containing chromium VI compounds – see **A1040** (Cr(VI))
- Any type of mixed construction/demolition waste (e.g. construction waste mixed with excavated soil) or ceramic tiles mixed with hazardous substances (e.g. from industrial demolition) – **unlisted waste** or, if contaminated, classified according to the contaminants on list A (Amber Waste List)
- Fireclay/chimney stone with hazardous contamination – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)



Figure 163: Mixed construction waste – unlisted waste

Figure 164: Furnace linings and refractories from casting – unlisted waste

74. CERAMIC FIBRES (NON-DISPERSIBLE)

Designation:

Green List B2030

Ceramic fibres in non-dispersible form: Ceramic based fibres not elsewhere specified or included

Other designations:

rock wool; ceramic wool

Physical characteristics: solid

EWL:

10 12 99 wastes not otherwise specified

17 06 04 insulation materials other than those mentioned in 17 06 01* and 17 06 03*

Designation in English:

Ceramic based fibres not elsewhere specified or included; rock wool, ceramic wool (non-dispersible)

Detailed description:

Uncontaminated ceramic fibres in non-dispersible form such as rock wool or ceramic wool (demonstrably without carcinogenic properties) which are intended for recovery!

NB: Artificial mineral fibres are especially used for thermal insulation because of their high temperature stability. Fibres with a length of $> 5\mu\text{m}$, a diameter of $< 3\mu\text{m}$ and a ratio of length to diameter of > 3 are ascribed a "critical fibre geometry" according to a determination of WHO (World Health Organisation). These fine fibres are a dispersion risk and are excluded from the Green List. They can cause fibrotic changes when inhaled into the lungs.

Waste from artificial mineral fibers produced in the EU, originating from new building measures (e.g. blends) or production reject, which are cleared and guaranteed by quality seals (such as natureplus, Austrian Ecolabel, Blue Angel or "RAL quality mark" of the "Gütegemeinschaft" mineral wool), can be classified under the Green List (risk approach). Artificial mineral fibre waste of unknown origin and subject to unknown classification in terms of chemicals legislation (e.g. from demolition measures) must be classified as hazardous waste if there is no evidence of non-hazardousness and excluded from the Green List.

Demarcation from similar Green List wastes:

- Fibre glass wastes (in non-dispersible form) – see **GE020**
- Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use) in non-dispersible form – see **GF010**
- Mixtures of waste under entry B2030 in non-dispersible form (i.e. cermets and ceramic-based fibres not elsewhere specified or included) – see **section 3c) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Asbestos fibres and modified asbestos fibres – see **A2050**
- Artificial fibre waste of unknown origin and subject to unknown classification in terms of chemicals legislation (e.g. from demolition measures) must be classified as hazardous waste if there is no evidence of non-hazardousness – see **RB020**
Note: Import prohibition for disposal in Austria!
- Ceramic fibres contaminated with hazardous substances (such as mineral oil) – **unlisted waste** or, if asbestos present A2050 or classification according to the contaminates on List A (Amber Waste List)

75. BONES

Designation:
Green List B3060

Wastes arising from agro-food industries provided they are not infectious: Waste of bones and horn-cores, unforced, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised

Other designations:

Bones and horn-core wastes; horn meal; bone meal

Physical characteristics: solid

EWL:

02 02 02 animal-tissue waste

02 02 03 materials unsuitable for consumption or processing

Designation in English:

Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised

Detailed description:

Bones (but never cattle skull bones or skull bones of goats and sheep that constitute specific risk material or category-1 material and whose shipment requires an approval as stipulated by Regulation (EC) No 1069/2009 on Animal By-Products and does not fall within the scope of the EC Waste Shipment Regulation) and horn parts that are intended for recovery.

NB: The EC Waste Shipment Regulation generally does not apply to the shipment of waste that is subject to the approval requirements according to Regulation (EC) No 1069/2009 on Animal By-Products (category 1 and 2 material).

Processed animal protein (bone meal, horn meal, hoof meal) in categories 1, 2, and 3 (from rendering plants) requires a veterinary permit according to the current version of EC Animal By-Product Regulation No 1069/2009 and is therefore exempted from the provisions of the EC Waste Shipment Regulation.

Bones (marrowbones) that belong exclusively to category 3 of EC Animal By-Product Regulation No 1069/2009 should be classified as products (not waste) if used in the animal feed or food segment for the manufacture of gelatine and bone glue.

Note: Cattle skull bones and skull bones of goats and sheep are never included in this category because they constitute specific risk material (risk of transmitting transmissible spongiform encephalopathies).



Figure 165: Pig bones

Demarcation from similar Green List wastes:

- Other wastes arising from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption, such as carcass parts in category 3 of the Animal By-product Regulation (EC) No 1069/2009 – see **B3060**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

There are no relevant categories in the Amber List.

76. COBALT SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Cobalt scrap

Other designations:

wastes and scrap of cobalt (Co)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Cobalt scrap, waste and scrap of Cobalt

Detailed description:

- Cobalt magnets (cobalt/samarium, etc.)
- Cobalt alloys (cobalt-alloyed steels, etc.) or super alloys (alloys of complex composition) for high-temperature applications (motor, turbine and aircraft engine manufacture and aeronautics as well as space travel)

Non-ferrous metal scrap whose level of non-hazardous and non-metallic impurities exceeds 10% is subject to notification procedure and consent from the Austrian Ministry of Agriculture, Forestry, Environment, and Water Management in the case of transboundary shipment.

Demarcation from similar Green List wastes:

- Spent cobalt catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Spent cobalt catalysts, if contaminated – see **A2030**
- Cobalt salts that accumulate in the form of chemicals – see **A4140**
- Cobalt-containing galvanic sludges – see **A1050**
- Dust, slag, and ash – unlisted waste or in the case of filter dust, fly ash – see **A4100**

NB: The radioactive isotope ^{60}Co emits gamma rays – the corresponding radiation protection provisions need to be observed!

77. COAL-FIRED POWER PLANT FLY ASH

Designation:
Green List GG040

ex 2621 Coal-fired power plant fly ash

Basel entry B2050 Coal-fired power plant fly ash, not included on list A (note the related entry on list A, A2060) will be replaced by entry GG040 for shipments in the OECD area.

Other designations:

power plant fly ash; fly ash (coal-fired power plants)

Physical characteristics: solid

EWL:

10 01 02 coal fly ash

Designation in English:

Coal fired power plants fly ash

Detailed description:

The use of fly ash from coal-fired power plants (without waste incineration) in the cement and concrete industry is covered, for example, by European standard EN 450-1, Fly ash concrete Part 1: Definition, specifications, and conformity criteria.

NB: To the extent that the ash demonstrably complies with the accepted standards for recovery in concrete and cement production (e.g. EN 450) and is subject to a quality management system it can be considered as a by-product. REACH registration is required under chemicals legislation for placing the by-product on the market. In case of doubt, a request for a declaratory decree according to Article 6 Waste Management Act of 2002 is recommended. Please note Article 28 of the EC Waste Shipment Regulation (priority to the stricter control procedure).

Demarcation from similar Green List wastes:

- Bottom ash and slag tap from coal-fired power plants – see **GG030**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Fly ash from municipal waste incineration plants – see **Y47** (residues from the incineration of household waste)
- Fly ash from incineration plants for hazardous waste and from pyrolysis plants, from the paper and wood industry, from biomass combustion plants – see **A4100**
- Fly ash from oil combustion plants (containing vanadium) – see **AA060**
- Fly ash from coal-fired power plants that co-incinerate wastes or that exhibit hazardous characteristics – see **A2060**
- Dusts and residues from gas cleaning systems of copper smelters – see **A1100**

78. ASH AND SLAG FROM COAL-FIRED POWER PLANTS

Designation:

Green List GG030

ex 2621 Bottom ash and slag tap from coal-fired power plants

Other designations:

bottom ash and slag from coal-fired power plants

Physical characteristics: solid

EWL:

10 01 01 bottom ash, slag and boiler dust, excluding the boiler dust mentioned in 10 01 04*

Designation in English:

Bottom ash and slag tap from coal-fired power plants

Detailed description:

This category refers to bottom ash and firing slags from coal-fired power plants that may be recovered in the form of construction additives, for example.

Demarcation from similar Green List wastes:

- Coal-fired power plant fly ash – see **GG040**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Bottom ash and slags from waste incineration plants and pyrolysis plants (including ash from coal-fired power plants that co-incinerate waste) – **unlisted waste** or listed according to the hazardous contaminants in list A (Amber Waste List)
- Ash and slags from incineration plants for residual/municipal waste and similar commercial waste – see **Y47** (residues arising from the incineration of household wastes)
- Bottom ash and slags from incineration plants for hazardous waste – **unlisted waste**
- Bottom ash from the incineration of paper and wood industry wastes, from biomass combustion plants as well as facilities other than coal-fired power plants – **unlisted waste** or listed according to the hazardous contaminants in list A (Amber Waste List)

79. POWER PLANT SCRAP

Designation:
Green List B1040

Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCBs or PCTs to an extent that renders them hazardous

Other designations:

Scrap from power plant installations; power plant scrap; turbine scrap

Physical characteristics: solid

EWL:

- 16 02 14 discarded equipment other than those mentioned in 16 02 09* to 16 02 13*
- 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15*
- 16 01 17 ferrous metal
- 16 01 18 non-ferrous metal
- 17 04 01 copper, bronze, brass
- 17 04 02 aluminium
- 17 04 05 iron and steel
- 17 04 07 mixed metals
- 19 10 01 iron and steel waste
- 19 10 02 non-ferrous waste
- 19 12 02 ferrous metal
- 19 12 03 non-ferrous metal
- 17 04 03 lead
- 17 04 04 zinc
- 17 04 06 tin
- 20 01 36 discarded electrical and electronic equipment other than that mentioned in 20 01 21*, 20 01 23* and 20 01 35*
- 20 01 40 metals

Designation in English:

Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous

Detailed description:

Waste from power plant installations, such as waste turbines, pumps, generators, motors. Regarding any contamination, the limit values of the current version of the List of Waste Ordinance must be observed.

The PCB/PCT content (polychlorinated biphenyl/polychlorinated terphenyl, as defined within the meaning of the EC PCB Directive) must not exceed 30 mg/kg dry mass relative to the fuel (oil).

The residual mineral oil hydrocarbon content must not exceed the limit value set forth in the Waste Ordinance. Any stricter limit values in other countries must be observed (Article 28 of the EC Waste Shipment Regulation - priority to stricter classification in country of destination or country of dispatch).

Demarcation from similar Green List wastes:

- Electrical assemblies consisting only of metals or alloys – see **GC010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Power plant installations whose PCB/PCT content (as defined within the meaning of the EC Directive) relative to the fuel (oil) exceeds 30 mg/kg – see **A1180**
- Complete waste electric/electronic devices with environmentally relevant percentages of hazardous substances (e.g. components containing mineral oil) – see **A1180**
- Full or drained PCB transformers – see **A3180** or if applicable, **A1180**
- Engines with PCB starting capacitors or electrolytic capacitors – see **A1180**

80. PLASTIC WASTE (NON-HALOGENATED)

Designation:
Green List B3010

Plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a standard:
Scrap waste of non-halogenated polymers and co-polymers

Other designations:

Waste plastic, scrap plastic, mixed plastic waste, scrap plexiglass, scrap acrylic glass, scrap polyethylene, scrap PE, scrap polypropylene, scrap PP, polyamide waste, recycling granulate, ground plastic, plastic agglomerate, waste of polyethylene (PE), polystyrene (PS), polypropylene (PP), polyethylene terephthalate (PET), polyacrylonitrile (PAN), polybutadiene, polyacetals (POM), polyamides (PA), polybutylene terephthalate (PBT), polycarbonate (PC), polyethers, polyphenylene sulphides (PPS), acrylic polymers, alkanes (C10-C13), polyurethane (PU) (not containing CFCs), polysiloxanes, polymethyl methacrylate (PMMA), polyvinyl alcohol (PVA), polyvinyl butyral (PVB), polyvinyl acetate (PVAC)

Physical characteristics: solid (excluding paraffins C10–C13 which can usually not be polymerised and are used as a plasticiser)

EWL:

- 02 01 04 waste plastics (except packaging)
- 07 02 13 waste plastic
- 07 02 17 waste containing silicones other than those mentioned in 07 02 16*
- 12 01 05 plastics shavings and turnings
- 15 01 02 plastic packaging
- 16 01 19 plastics
- 17 02 03 plastic
- 17 06 04 insulation materials other than those mentioned in 17 06 01* and 17 06 03*
- 19 12 04 plastic and rubber
- 20 01 39 plastics

Designation in English:

Solid plastic wastes (not mixed with other wastes and are prepared to a specification), scrap plastic of non-halogenated polymers and co-polymers:

polyethylene; polystyrene; polypropylene; polyethylene terephthalate; polyacrylonitrile; polybutadiene polyacetals; polyamides; polybutylene terephthalate; polycarbonates; polyethers; polyphenylene sulphides; acrylic polymers; alkanes C10-C13 (plasticiser); polyurethane (not containing CFCs); polysiloxanes; polymethyl methacrylate; polyvinyl alcohol; polyvinyl butyral; polyvinyl acetate

Detailed description:

Ground material and granulate of plastic waste are considered equivalent to Green List waste, even if those commercial forms are of low quality, provided that environmentally sound recovery is possible.

The proportion of permissible contaminations with other Green List wastes may not exceed 10%, however the proportion of PVC (entry: GH013) is limited to 5%. The proportion of treated wood waste (Amber List waste) is limited to max. 1%.

NB: Stricter requirements for the permissible content of non-hazardous contamination or contaminants (incl. tolerated content of small quantities of PVC) in the country of destination are to be observed (priority to stricter classifications pursuant to Article 28 of the EC Waste Shipment Regulation).

Bulky glass or carbon fiber reinforced plastic waste (for example, wind turbine blades, large-scale roofing) is not included in the Green List and should be subject to a transboundary notification as there currently no adequate recovery options exist.

The list of plastic wastes included in the Green List is not generally exhaustive. This means that plastic waste other than that explicitly mentioned may be classified as Green List waste, if appropriate.

In general, only hardened, solid plastics that are free from hazardous contamination should be included in this category.

The entry also includes mixtures of different types of plastics (e.g. PP and PE; ABS and PS) to the extent that either an environmentally sound material recovery or thermal recovery takes place in a co-incineration plant (e.g. cement plants, power plants) or a waste incineration plant for solid municipal waste that complies with the energy efficiency criterion in accordance with the EC Waste Framework Directive No 98/2008.

Mixtures containing non-plastic materials such as metals, wood, paper or composite board are not included. Plastic waste from non-halogenated polymers and copolymers, including but are not limited to the following substances are to be assigned to the Green List:

- polyethylene (PE)
- polystyrene (PS)
- polypropylene (PP)
- polyethylene terephthalate (PET)
- polyacrylonitrile (PAN)
- butadiene
- polyacetals (POM)
- polyamides (PA)
- polybutylene terephthalate (PBT)
- polycarbonate (PC)
- polyether
- polyphenylene sulphides (PPS)
- acrylic polymers
- alkanes (C10-C13)**
- polyurethane (not containing CFCs)***
- polysiloxane ****
- polymethyl methacrylate (PMMA)
- polyvinyl alcohol (PVA)
- polyvinyl butyral (PVB)
- polyvinyl acetate (PVAC)

***The paraffins C10-C13 can usually not be polymerised and are used as plasticisers.*

****The waste must not contain any HCFCs, HFCs or FCs (->compliance with the limit values to meet the criterion for eco-toxicity according to the List of Waste Ordinance).*

*****Waste containing hazardous silicones is classified as hazardous waste in the European Waste List and must not be classified as Green List waste.*

Product:

Granulate and ground material from homogeneous scrap plastic (especially production waste) containing hardly any contamination or contaminants and no prohibited substances (e.g. POPs), that require no additional treatment steps due to their substance identity and can be used directly for material recycling, can be considered equivalent to a product (not waste).

NB: However mixtures of HDPE and LDPE production waste are regarded as waste due to their different material properties.

Please note the requirements pursuant to the REACH Regulation relating to end-of-waste status.

Examples of Green List waste:

For classification on the Green List, plastic waste may not contain hazardous waste or substances to such an extent that it constitutes a hazardous characteristic. If the waste exhibits a hazardous characteristic, it should be assumed that it is subject to notification (mixture of Green List waste with content of Amber List waste).

Plastic fractions from the processing of lead-acid batteries may not exceed 500 mg lead/kg DM (see guidelines of the Waste Treatment Obligations Ordinance) for the classification of waste on the Green List.

Polyethylene (PE)

- PE film waste, PE waste

Polypropylene (PP)

- Recoverable mixtures of plastic waste composed of polypropylene (PP) and polyethylene (PE)
- Collected polypropylene bumpers
- Cleaned car battery cases: lead content max. 500 mg/kg DM

Polyurethane (PU)

- Polyurethane waste (not foamed with CFCs/HCFs/HFCs/FCs (limit value for hazardous waste pursuant to the List of Waste Ordinance)) such as scrap PU shoe soles, PU hoses (bulk freight transport), waste dashboards (provided they do not contain prohibited brominated flame retardants) and cast compounds made of PU; ground polyurethane degased according to the state of the art (e.g. from refrigerator preparation)

Polycarbonate (PC)

- Waste lamp covers, aircraft windows, protective helmets and visors
- Homogeneous compact disc waste (CDs, DVDs), insulating film
- Homogeneous packaging and plastic flasks made of polycarbonates

Polymethyl methacrylate (PMMA)

- Waste of plexiglass windows (glazing)
- Waste of plexiglass lamp covers
- Waste of eyeglass lenses, sanitary facility parts, dental prostheses (pink plastics)

Polysiloxane (silicone waste)

- Not including hazardous, cured silicone waste

Polystyrene waste

- Polystyrene waste (not foamed with CFCs/HCFs/HFCs/FCs (limit values for hazardous waste according to the List of Waste Ordinance)); the content of flame retardant hexabromocyclododecane (HBCD) must be demonstrably under the 0.1% limit value according to Annex IV of the EU POP Regulation (destruction or irreversible transformation).

Note: Expanded polystyrene (EPS) and extruded polystyrene (XPS) insulating panels from production before 2015 (in Austria) contain between 0.7-1.5% hexabromocyclododecane (flame retardant) and are therefore excluded from the Green List. Also old XPS insulating material contains (H)CFC waste.

Plastic packaging made of PE/PA/PP that has been partly vaporised with aluminium

(aluminium parts approx. 3-5%) in the form of off-specification prints/batches without food contamination

Plastic fractions from the collection (or also similar fractions) after appropriate sufficient post-sorting

(total contaminant content max. 10%; with the proportion of PVC however, being limited to 5%)

Plastic wastes from the processing of electrical and electronic wastes

- Plastics from the processing of electrical and electronic waste. The content of tetra-, penta-, hexa-, heptabromodiphenyl ether or HBCD must be demonstrably below the POP limit value according to Annex IV of the EU POP Regulation. According to the technical specification EN CLC/TS 50625-3-1 pertaining to Cenelec Standard EN 50625-1 it is assumed that the content of prohibited PBDEs (POPs) in waste plastics from electrical/electronic equipment will not be exceeded if the total content of bromine is below 2,000 mg/kg²⁸. For DecaBDE, no limit value has been laid down in Annex IV to the POP Regulation so far.

²⁸ When the total bromium limit value of 2,000 mg/kg is exceeded, the wastes may only be put on the Green List if representative and topical analytics is submitted for the specific shipment providing evidence that the shipment in question does not contain any substances exceeding the limit values pursuant to the POP Regulation, as amended.

- Concerning plastic waste from the recovery of refrigerators, washing machines and dishwashers, it can be assumed that this waste contains an insignificant quantity of brominated flame retardants. According to the WEEE Ordinance and EU WEEE Directive, plastics with brominated flame retardants are to be separated and disposed of appropriately (waste subject to a notification procedure in the case of transboundary shipments). Mixing these fractions with other plastics or with plastics containing lower content of flame retardants for the purpose of diluting pollutants is prohibited.

Even though the total bromium content is below 2,000 mg/kg, the DecaBDE content may be relevant. Therefore it shall be excluded by way of contract that recovery in the electronics area takes place (cf. provisions of the ROHS Directive or of the WEEE Ordinance). Furthermore, it shall be ensured by way of contract that such plastic wastes are only used in a way that is permissible according to Annex XVII to the REACH Regulation (EC) No 1907/2006, as amended. According to the Waste Treatment Obligations Ordinance, the use of flame retardants must be technically required.



Figure 166: Bumpers

Figure 167: PET bottle preforms – production waste

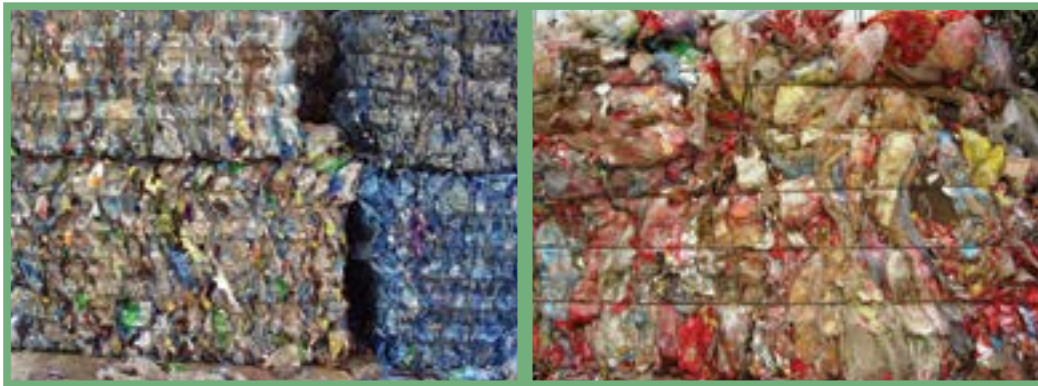


Figure 168: PET bottles in bales

Figure 169: Plastic film packaging



Figure 170: Plastic film

Figure 171: Plastic granulate



Figure 172: Plastic recycling granulate

Figure 173: Polyamide sprue

Demarcation from similar Green List wastes:

- Plastic-coated (laminated) paper and cardboard (composite board) – see **B3020**
- Polymers of vinyl chloride (polyvinyl chloride [PVC] and polyvinylidene chloride [PVDC]) – see **GH013**
- Waste fluorinated plastic and cured waste resins – see **B3010**
- Waste polymer ethers and (long-chain) non-hazardous monomer ethers incapable of forming peroxides – see **B3130**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "plastic waste of non-halogenated polymers and co-polymers" – see **section 3d) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "cured waste resins or condensation products" – see **section 3e) of Annex IIIA**
- Mixtures of waste classified under Basel entry B3010 (plastics) and listed as "Perfluoro alkoxy alkane" – see **section 3f) of Annex IIIA**
- The following wastes from the pre-treatment of composite packaging for liquids, of which none contain Annex I (Basel Convention) substances in such concentrations as to exhibit Annex III (Basel Convention) characteristics:
 - non-separable plastic fraction
 - non-separable plastic-aluminium fraction – see **B3026**
- Waste from self-adhesive labels that contains raw materials from label production – see **B3027**
- Composite packages which primarily consist of paper and a small amount of plastic and do not contain residue, and which are not classified in entry B3020 of the Basel Convention – see **BEU04 (Annex IIIB)**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Plastic mixtures from the collection of "commercial waste" (without post-sorting and separation of contaminants) or commercial waste similar to household waste (waste mixtures) – **Y46** (waste collected from households)
- Plastic material fractions from processed waste electrical and electronic equipment or from the automotive industry, whose total content of prohibited polybrominated diphenyl ethers or HBCD or any other possible POPs that exceed the value limits according to Annex IV of the EU POP Regulation, requires notification for the purpose of monitoring the appropriate treatment of this waste (**unlisted waste**). This applies to plastic waste whose total bromine content is equal to or exceeds 2,000 mg bromine/kg (POP waste can be assumed). If the limit value pursuant to the Basel Convention of 50 ppm (= 0.005%) of polybrominated biphenyls is exceeded, this waste is to be classified under entry **A3180** (Amber List).
More highly loaded fractions as expected from the selective disassembly of electrical and electronic equipment such as housings for monitors, televisions and photocopiers/printer/multi-functional devices, for which continuous measurements (e.g., bromine content) have not provided analytical evidence that POP values are below limits (no dilution!), are considered waste subject to a notification procedure.

- Waste fuels (RDF – refuse derived fuel) made from plastic with more than 10 % of non-plastics, with the proportion of PVC (entry GH013) being limited to 5 % – **unlisted waste** (some countries classify this waste as Y46)
- Coffee capsules made of plastic (contamination: approx. 80 – 90% coffee and water) – **unlisted waste** (mixture)
- High-calorific fraction from mechanical-biological treatment (mixture) – **unlisted waste**
- Organic screenings from the treatment of municipal and similar waste consisting of shredded film, polystyrene balls, foam, etc. (mixture) – **unlisted waste**
- Ground plastics (e.g. degassed PU foam) that were used as an absorbent for oil and hazardous chemicals and are therefore contaminated – **unlisted waste** or classified according to the relevant contaminants on list A (Amber Waste List)
- Rejects (mixed materials from plastics incl. PVC, textiles/ropes/straps, metal waste, adhesive strips) from waste paper processing – **unlisted waste**
- Plastic waste with hazardous contamination, such as PCBs (cf. PCB-containing plastics in the form of floor coverings or waste cable sheaths) or asbestos (cf. plastics with asbestos fibre reinforcement) – **unlisted waste** or classified according to the relevant contaminants on list A (Amber Waste List)
- Plastic packages with hazardous residual contents or fully emptied plastic packages that contained substances and preparations which under chemicals law require labelling with a "skull and crossbones - GHS06" or the "health hazard- GHS08" symbol or the "explosive - GHS01" hazard symbol – see **A4130**

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



- Fragments of polypropylene-lead-acid battery cases, unless cleaned – see **A1160** or **A1020**
- Plastic waste such as polyurethane (PU) foam insulating waste (e.g. from refrigerators) or polystyrene waste that was foamed with CFCs/HCFCs/HFCs/FCs – **unlisted waste**
- Polymethyl methacrylate (PMMA) varnish – see **A4070**
- Polycarbonate waste (from CDs, DVDs) mixed with larger quantities of paper waste (shredded covers, booklets) – **unlisted waste**
- Waste mixture of fibre-reinforced polymethyl methacrylate (PMMA) coated with polyester resin and having wooden components (mixture of furniture industry waste) – **unlisted waste**
- Plastic waste that contains persistent organic pollutants in concentrations exceeding the applicable limit values specified in Annex IV of the EU POP Regulation (destruction or irreversible transformation) – **unlisted waste**
- Mixtures of fluorinated plastic material wastes with chlorinated plastics such as PVC – (GH013) and/or with other, non-halogenated plastic wastes or residues (B3010) – **unlisted waste**
- Waste that contains hazardous silicone, waste from uncured silicone or liquid silicone wastes – **A3050** (residue) or **unlisted waste**
- Waste from composite materials with plastic parts that are not explicitly specified in the Green Waste List – **unlisted waste**

For waste from composite pipes made of HDPE and aluminium (PE-ALU-PE or silane-grafted polyethylene PEX-ALU-PEX) and similar waste, an application is pending at the EU level for inclusion on Annex IIIB (Green List).



Figure 174: Contaminated polypropylene battery waste – A1020 or A1160

Figure 175: Mixtures of packaging waste (commercial waste, household waste) – Y46



Figure 176: Plastics from monitor rear panels with more than 0.2% bromine content; POP limit values having been exceeded – unlisted waste

Figure 177: Paper rejects from waste paper recovery (mixture: plastic, cellulose, cords, metals, etc.) – unlisted waste



Figure 178: Mixture of plastic and paper wastes – unlisted waste

Figure 179: Waste fuels made of commercial waste containing plastic – unlisted waste

Non-recoverable plastic mixtures, e.g. plastic mixtures of PET (entry B3010) and contaminating PVC (entry GH013) that can neither be used for material recycling (for example due to chlorine content) nor for thermal recovery in industrial plants, require notification and authorisation in the case of transboundary shipment.

NB: The use of plastic waste as cover material for sludge ponds (such as a uranium ore sludge pond), landfills, etc. does not constitute recovery (subject to notification obligation – disposal).

81. PLASTIC WASTE (CHLORINATED)

Designation:

Green List GH 013

Solid plastic wastes: Polymers of vinyl chloride

Other designations:

Abbreviation of polyvinylidene chloride: PVC

Well-known trade names for hard PVC include Astralon, Luvitherm, Rhenadur, Rhenalon, Trovidur and Vinidur.

Soft PVC is sold by the trade names Acella, Adretta, Alkar, Coroplast, Tautex, Koresal, Mipolam, Pegulan and Renolit.

Abbreviation of polyvinylidene chloride: PVDC, trade name: Saran

Physical characteristics: solid

EWL:

02 01 04 waste plastics (except packaging)

07 02 13 waste plastic

12 01 05 plastics shavings and turnings

15 01 02 plastic packaging

16 01 19 plastics

17 02 03 plastic

19 12 04 plastic and rubber

20 01 39 plastics

Designation in English:

Waste of vinylchloride polymers; waste and scrap of polyvinyl chloride; waste and scrap of polyvinylidene chloride

Detailed description:

Polyvinyl chloride (PVC) is a hard and brittle plastic that must be softened by adding plasticisers and stabilisers.

PVCs are subdivided into soft PVC (PVC-P) and hard PVC (PVC-U).

The percentage of permissible contamination in non-hazardous substances or other wastes on the Green List may not exceed 10%, in which other plastic wastes (see B3010) are also considered undesirable materials and may not exceed 5%. The proportion of treated wood waste (Amber List waste) is limited to max. 1%.

For the classification of PVC or PVDC wastes under the Green List, hazardous wastes or substances must not be present to such an extent that they give rise to a hazardous characteristic.

In the last few cases mentioned, the wastes are assumed to be subject to notification (mixture of Green List waste with Amber List waste)!

For plastic fractions from lead-acid battery processing, the lead content may not exceed 500 mg/kg DM (see provisions of the Waste Treatment Obligations Ordinance) for classification in the Green List.

Product:

Granulate and ground material from homogeneous PVC plastic scrap (especially production waste) containing hardly any contamination or contaminants and no prohibited substances (e.g. POPs), that require no additional treatment steps due to their substance identity and can be used directly for material recycling, can be considered equivalent to a product (not waste). Please note the requirements pursuant to the REACH Regulation relating to end-of-waste status.

NB: Ground material and granulate from PVC waste that contains neither lead nor cadmium stabilisers also have to be classified as waste.

Examples of Green List wastes:

- PVC blister waste (PVC aluminium composite material) with an aluminium content of < 5%, to the extent that it is not contaminated with hazardous substances
- PVC pipe and profile waste
- Polyvinylidene chloride waste (PVDC waste) in the form of sheets, pipes, etc.
- Floppy disks: These consist of two types of plastic (PVC and polyester); if the PVC is separated out, classification under GH013 PVC is possible (otherwise it requires notification as unlisted waste, as it is a mixture of GH013+B3010)
- Waste of artificial leather (soft PVC)
- Hard foam made of PVC, provided that it is demonstrably free of CFCs/HCFCs/HFCs/FCs



Figure 180: PVC waste

Figure 181: PVC ground material

Demarcation from similar Green List wastes:

- All other plastic wastes (not halogenated or fluorinated) except polymers of vinyl chloride – see **B3010**
- Mixtures of waste listed in Basel entry B3010 (Plastics) under "Perfluoro alkoxy alkane" – see **section 3f) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- PVC paste – **unlisted waste**
- PVC separators from lead-acid batteries (usually contaminated with lead compounds) – see **A1160**
- PVC aluminium blister packaging that still contains drug waste or mixed medication packages of pharmaceutical products with contents or PVC composites that contain more than 5% aluminium coatings – see **A4010, A4130** or **unlisted waste**
- PCB-containing cable sheath waste made of PVC (for cable sheath waste of unknown origin, it cannot be ruled out that PCB is included) – see **A1190**
- PVC cable sheath waste with a high concentration of polybrominated flame retardant as specified in Annex IV of the EU POP Regulation (a total bromine content equal to or higher than 2,000 mg/kg) – **unlisted waste**

GUIDELINES FOR THE SHIPMENT OF WASTE

- PVC cable sheath waste with a PVC proportion below 90 % or a proportion of plastics under entry B3010 above 5 % – **unlisted waste**
- Waste PVC windows and parts (with or without glass parts) due to the high quantity of non- plastic components – **unlisted waste**
- Mixtures of PVC (GH013) with plastic waste under entry B3010 – **unlisted waste**
- PVC or PVDC plastic packaging that hazardous residual contents or fully emptied plastic packages that contained substances and preparations which under chemicals law requires labelling with a "skull and crossbones - GHS06" or the "health hazard- GHS08" symbol or the "explosive - GHS01" hazard symbol – see A4130

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



- PVC composite materials with a high component of non-PVC – **unlisted waste**

NB: The use of plastic wastes as cover material for sludge ponds, landfills, etc. does not constitute a recovery operation (subject to notification – disposal).



Figure 182: Blister packaging with old medication, mixed with other pharmaceutical waste – A4010

Figure 183: Cable sheath waste of unknown origin with approx. 60% PVC with PCB contamination – A1190



Figure 184: Waste PVC window without glass – unlisted waste (mixture)

82. PLASTIC WASTE (FLUORINATED)

Designation:
Green List B3010

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification: fluorinated polymer waste

Post-consumer wastes are excluded from this entry. Wastes must not be mixed. Problems arising from open-burning practices to be considered.

Other designations:

Plastic wastes; pieces of plastic; fluorinated plastic waste, "Teflon"

Physical characteristics: solid

EWL:

- 02 01 04 waste plastics (except packaging)
- 07 02 13 waste plastic
- 12 01 05 plastics shavings and turnings
- 15 01 02 plastic packaging (note: only scraps or production waste)
- 16 01 19 plastic
- 17 02 03 plastic
- 19 12 04 plastic and rubber
- 20 01 39 plastics

Designation in English:

Fluorinated polymer wastes, perfluoroethylene/propylene (FEP), perfluoro alkoxy alkane, tetra-fluoroethylene/per fluoro vinyl ether (PFA), tetrafluoroethylene/per fluoro methylvinyl ether (MFA), polyvinyl fluoride (PVF), polyvinylidene fluoride (PVDF), polymers and co-polymers of fluorinated ethylene (PTFE).

Detailed description:

The fluorinated plastic wastes mentioned below must by no means be waste that is accumulated by consumers. The entry therefore covers production waste, scraps, etc. or fluorinated polymer waste recovered from faulty product batches.

The following is fluorinated polymer waste:

- perfluoroethylene/propylene (FEP)
- perfluoro alkoxy alkane
- tetrafluoroethylene/perfluoro vinyl ether (PFA)
- tetrafluoroethylene/perfluoro methyl vinyl ether (PFA)
- polyvinyl fluoride (PVF)
- polyvinylidene fluoride (PVDF)

Note: This category of fluorinated polymer wastes also includes polymers and copolymers of fluorinated ethylene (PTFE). Polytetrafluoroethylene (PTFE) is also colloquially known as Teflon (according to the trade name). Other common designations include Gore-Tex for PTFE membranes.

The percentage of permissible contamination with other Green List wastes may not exceed 10%, however, the proportion of PVC (entry: GH013) is limited to 5%. The proportion of treated wood waste (Amber List waste) is limited to max. 1%.

Demarcation from similar Green List wastes:

- Polymers of vinyl chloride (e.g. PVC or PVDC) – see **GH013**
- Cured resins and condensation products and non-halogenated plastics – see **B3010**
- Mixtures of waste listed in Basel entry B3010 (Plastics) under "Perfluoro alkoxy alkane" – see **section 3f) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste of fluorinated plastics such as plastic packaging accumulated by consumers – see **Y46** (waste collected from households) or, if applicable, **unlisted waste**
- Fluorinated plastic waste with hazardous contamination – **unlisted waste** or classified according to the relevant contaminants on list A (Amber Waste List)
- Plastic packages with hazardous residual contents or fully emptied plastic packages that contained substances and preparations that under chemicals law require labelling with a "skull and crossbones - GHS06" or the "health hazard - GHS08" symbol or the "explosive - GHS01" hazard symbol – see **A4130**

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



NB: The use of fluorinated plastic wastes as cover material for sludge ponds, landfills, etc. does not constitute a recovery operation (subject to notification – disposal).

83. PLASTIC AND PLASTIC-ALUMINIUM FRACTIONS FROM DISSOLVED COMPOSITE PACKAGING

Designation:
Green List B3026

The following wastes from the pre-treatment of composite packaging for liquids, not containing Annex I (Basel Convention) materials in concentrations sufficient to exhibit Annex III (Basel Convention) characteristics:

- non-separable plastic fraction
- non-separable plastic-aluminium fraction

Physical characteristics: solid to sludge-like

EWL:

19 12 04 waste plastic

19 12 12 other waste (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11*

Note: Restricted to non-separable plastic fraction or plastic-aluminium fraction from the pre-treatment of used composite packaging for liquids.

Designation in English:

Waste from the pre-treatment of composite packaging for liquids, not containing Annex I (Basel Convention) materials in concentrations sufficient to exhibit Annex III (Basel Convention) characteristics:

- Non-separable plastic fraction
- Non-separable plastic-aluminium fraction

Detailed description:

The composite packagings for liquids consist in the core of

- paper or cardboard that is coated with plastic inside and outside
Typical composition of composite packaging:
approx. 80% paper and 20% plastic (PE).
- Paper or cardboard that is coated with plastic inside and outside and additionally with aluminium inside.
Typical composition of composite packaging:
approx. 75% cardboard, 21% PE as well as 4% aluminium.

In recovery plants, composite packagings are dissolved into separate components in a water-filled drum. The components are moved in this process and are released from each other as a result of the swelling of the cardboard. Additional chemicals are not used. The paper fibre fraction then becomes a raw material for the paper industry. The plastic component generally serves as an energy source for cement plants. This entry includes the polyethylene fraction.

The typical composition for the non-separable plastic fraction:
plastic approx. 70%, fibres approx. 10%, moisture approx. 20%.

The typical composition for the non-separable plastic-aluminium fraction:
plastic part (PE) approx. 60%, aluminium part approx. 10%, moisture approx. 20%, fibre part approx. 10%.

The waste can actually only be used for thermal recovery (in co-incineration plants) or pyrolysis.

For the non-separable plastic-aluminium fraction, the plastic and aluminium layers can be recovered as RDF (plastic) or as raw materials (aluminium replaces bauxite in clinker brick) in cement plants.

Note: In incineration plants other than cement plants, the aluminium content can be problematic regarding the deposition of aluminium oxide in combustion boilers and aluminium oxide as part of the resulting fly ash can cause the emission of flammable gases in the presence of water.

The incineration of the waste in question is considered as recovery operation in the incineration plants whose purpose is the treatment of solid municipal waste, provided that the prescribed energy coefficient is in compliance with the EC Framework Directive No 98/2008.

Demarcation from similar Green List wastes:

- Plastic-coated paper (e.g. "Tetrabricks" beverage composite board) – see **B3020**
- Composite packages which primarily consist of paper and a small amount of plastic and do not contain residue, and which are not classified in entry B3020 of the Basel Convention – see **BEU04** (Annex IIIB)
- Waste from self-adhesive labels that contains raw materials from label production – see **B3027**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- De-inking sludge – **unlisted waste**
- Residues from plastics processing that contain a higher content of chlorine (PVC) or heavy metals, so that thermal recovery is impeded or made impossible – **unlisted waste**
- Rejects from waste paper treatment – **unlisted waste**

84. WASTE OF COPPER AND COPPER ALLOYS (DISPERSIBLE)

Designation:

Green List B1070

Waste of copper and copper alloys in dispersible form unless they contain Annex I (Basel Convention) constituents to an extent that they exhibit Annex III (Basel Convention) characteristics

Other designations:

Copper, brass, gunmetal, bronze scrap, dispersible; copper, brass, bronze, gunmetal dust or powder, copper, brass, bronze, gunmetal dross or ashes sludge; dispersible copper refinement materials

Physical characteristics: solid - highly viscous, dispersible

EWL:

- 10 06 01 slags from primary and secondary production
- 10 06 02 dross and skimmings from primary and secondary production
- 10 06 04 other particulates and dust
- 12 01 03 non-ferrous metal filings and turnings
- 12 01 04 non-ferrous metal dust and particles
- 12 01 15 machining sludges other than those mentioned under 12 01 14*
- 19 12 03 non-ferrous metal
- 20 01 40 metals

Designation in English:

Waste of copper and copper alloys in dispersible form, unless they contain Annex I (Basel Convention) constituents to an extent that they exhibit Annex III (Basel Convention) characteristics

Detailed description:

- Metallic copper dust, brass dust, bronze dust
- Copper refinement materials with oxidic copper components and copper discharges
- Copper and copper alloys dross, ash, slag, to the extent that they have no hazardous characteristics



Figure 185: Dispersible copper slag

Figure 186: Brass dust

Demarcation from similar Green List wastes:

- Copper sintering materials (copper oxide mill scale), provided they do not have high lead oxide content (0.3% limit value for reproductive toxicity) and are free of other contamination – see **B1240**
- Mixtures of wastes classified under Basel entries B1010 (ferrous and non-ferrous metal wastes) + B1070 (wastes of copper and copper alloys in dispersible form) – see **section 2b) of Annex IIIA**
- Mixtures of waste classified under OECD entry GB040 (slags from processing of precious metals and copper), under entry B1070 (waste of copper and copper alloys in dispersible form) and under Basel entry B1100 (metal-bearing wastes arising from the melting, smelting and refining of metals) restricted to: waste of refractory linings, including crucibles originating from copper smelting – see **section 2e) of Annex IIIA**

NB: no export to countries to which the OECD Decision is not applicable.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Copper-containing filtration dust – see **A1100** or **A4100**
- Copper arsenate, copper salts, pigments – see **A4140** (chemicals) or **A4070**
- Copper and copper alloy dross, ash, slag with hazardous characteristics – **unlisted waste**
- Copper(II)-chloride and copper cyanide catalysts – see **A1140**
- Copper sintering materials (copper oxide mill scale) with lead oxide content over 0.3% (limit value for reproductive toxicity) or other contaminations that exhibit a hazardous characteristic – **unlisted waste**
- Copper refinement materials that exhibit a hazardous characteristic (e.g. lead content over 0.3%) – see **A1020** or classification according to the main contaminants on List A (Amber List)



Figure 187: Copper refinement materials with more than 0.3% lead compounds (reproductive toxicity) - HP10 criteria according to the EC legal status – unlisted waste or A1020

85. COPPER OXIDE MILL-SCALE

Designation:

Green List B1240

Copper oxide mill scale

Other designations:

Copper sintering material; copper scaling; mixture of copper and copper oxide; "copper forge scaling"

Physical characteristics: solid

EWL:

06 03 16 metal oxides other than those mentioned in 06 03 15*

10 06 04 other particulates and dust

10 06 99 wastes not otherwise specified

12 01 99 wastes not otherwise specified

Designation in English:

Copper oxide mill-scale

Detailed description:

Scaling means the oxide layers on the surface of the copper formed through high temperatures in combination with an oxidising atmosphere.

Copper oxide-mill scaling is a mixture of copper, copper oxide as well as lesser quantities of other oxides (such as aluminium, iron and zinc oxide) and traces of oil and water.

Copper oxide residues or copper cinder from the milling of copper at red heat may be classified in the Green List provided they exhibit no hazardous characteristics. This means that the waste must not contain elevated amounts of heavy metals, beryllium oxide or oil contamination, to such an extent that there is a hazard characteristic pursuant to the List of Waste Ordinance, as amended; possible stricter limit values in other countries must be observed. Analysis is required to determine whether it is non-hazardous.

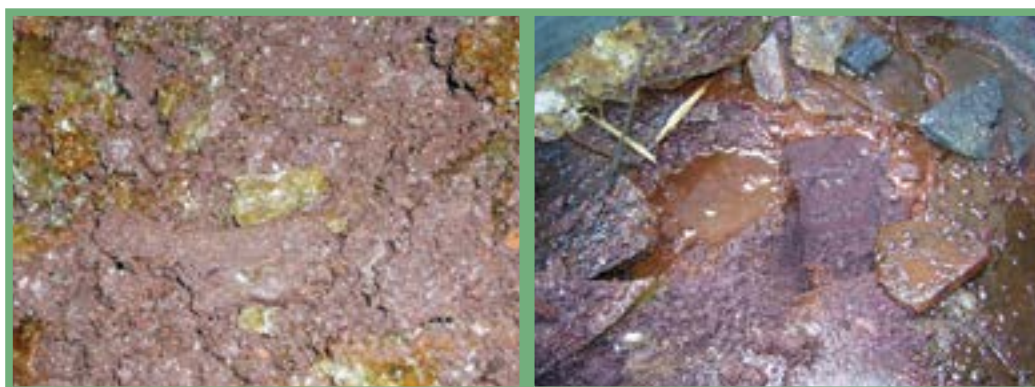


Figure 188: Copper oxide mill scaling

Figure 189: Copper oxide mill scaling

Demarcation from similar Green List wastes:

- Waste of copper and copper alloys in dispersible form that does not contain Annex I (Basel Convention) substances to an extent that they exhibit Annex III (Basel Convention) characteristics – see **B1070**
- Mixtures of waste under entries B1010 + B1070 – see **section 2b) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Wastes from copper-based wood-preserving chemicals – see **A4040**
- Copper-containing galvanic sludge – see **A1050**
- Copper-containing filtration dust – see **A1100** or **A4100**
- Contaminated copper refinery material (e.g. with dispersible waste copper with elevated heavy metal oxide constituents) and contaminated copper oxide mill scales (e.g. with elevated oil contents) – **unlisted waste** or, if applicable, classified according to the relevant contaminant on list A (Amber Waste List)
- Copper arsenate or other copper salts (chemical waste) – see **A4140**
- Copper-containing paints and pigment waste with hazardous characteristics – see **A4070**
- Copper-containing dross, ash, slags with hazardous characteristics – **unlisted waste**

86. COPPER SCRAP (NON-DISPERSIBLE)

Designation:
Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Copper scrap

Other designations:

Wastes and scrap composed of copper (Cu) and copper alloys (bronze, brass, gunmetal), copper, bronze, brass, and gunmetal shavings, copper, bronze, brass, gunmetal sheets, tombak (brass alloy), Nordic gold (alloy composed of 89% copper, 5% aluminium, 5% zinc and 1% tin)

Physical characteristics: solid, metallic non-dispersible form

Note: dispersible oxide residues are permissible.

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 17 04 01 copper, bronze, brass
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Copper scrap, waste and scrap of copper and copper alloys (brass, bronze, gunmetal), copper-, brass-, bronze- or gunmetal turnings or shavings, gunmetal (red brass) copper, bronze, brass and gunmetal sheets; tombak (brass alloy); Nordic gold (alloy of 89 % copper, 5 % aluminium, 5 % zinc and 1 % tin)

Detailed description:

Alloys:

Brass: alloy of copper and zinc

Bronze: alloy of copper (80-90%) and tin

Gunmetal: alloy of copper, tin and zinc

Tombak: brass alloy with high copper content

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

- Bare copper wire scrap, mixed copper wire scrap (containing tin solder or tin-alloy solder), shredded copper wire scrap (without cable insulation)
- Heavy copper scrap (uncoated stamping scrap, sheet copper scrap, overhead wires)
- Copper radiators and parts
- Mixed copper scrap
- Light copper scrap (roof gutters, sheet copper, drain pipes, pots, single-faucet water heaters, etc.)
- Copper shavings (without significant oil contamination)
- Carbon brush waste (copper with carbon residue for copper recovery), not in dispersible form
- Gunmetal and bronze waste (gunmetal scraps such as machinery bearings, valves, etc.)
- Gunmetal shavings, bronze sieves, faucets and taps, etc.
- Brass (brass waste and shavings, brass scale, brass pipes and brass scrap, brass cartridge cases (free from explosives) and cartridge cases, brass and light brass scrap, brass radiators, copper- brass radiators)



Figure 190: Copper wire scrap

Figure 191: Circuit boards without hazardous components – correct classification under GC020



Figure 192: Copper scrap

Figure 193: Copper strands (after removal of the cable insulation)



Figure 194: Brass radiator

Figure 195: Copper scrap

Demarcation from similar Green List wastes:

- Copper or copper alloy powder, copper refinement material with high contents of copper oxide, copper ash and dross, copper-containing residue, brass dross, gunmetal dross and ash without hazardous characteristics (e.g. discharges with high metal content), carbon brush waste (copper with coal residue for copper recycling), in dispersible form – see **B1070**
- Copper cable with insulation without hazardous contamination – see **B1115**
- Copper catalysts (cleaned) – see **B1120**
- Ash from the incineration of printed circuit boards without hazardous contamination – see **B1160**
- Copper mill scale, copper sintering materials (without hazardous characteristics – see **B1240**)
- Unpopulated or depopulated printed circuit boards without hazardous characteristics (cf. Waste Treatment Obligations Ordinance) – see **GC020**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**
- Mixtures of waste under entries GB040 + B1070 + B1100 (limited to specific entries) – see **section 2e) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Copper-containing galvanic sludge – see **A1050**
- Copper, brass, bronze, gunmetal and other copper alloy ash and dross as well as copper-containing residues with hazardous characteristics (e.g. lead oxide contents > 0.3% – reproductive toxicity) – **unlisted waste**
- Drawing sludge that accumulates when drawing copper and is contaminated with drawing product residues – **unlisted waste**
- Copper compounds such as copper vitriol, copper chloride, copper cyanide as chemicals – see **A4140**
- Populated or partially depopulated printed circuit boards with hazardous components as defined by the Waste Treatment Obligations Ordinance – see **A1180**
- Copper cable with insulation and hazardous contamination (e.g. underground cable with tar, oil, and PCBs) – see **A1190**
- Ash from the incineration of printed circuit boards with hazardous characteristics – see **A1150**
- Ash from the incineration of insulated copper cable – see **A1090**
- Dusts and residues from flue gas cleaning systems of copper smelters – see **A1100**
- Spent electrolyte solutions from electrolytic reclaiming or cleaning of copper – see **A1110**
- Sludge-like waste, except for anode sludge, from electrolytic reclaiming or cleaning of copper – see **A1120**
- Spent pickling and etching solutions containing dissolved copper – see **A1130**
- Waste of cupric chloride and copper cyanide catalysts – see **A1140**
- Copper catalysts with hazardous contamination – see **A2030**
- Dust from the production of printed circuit boards (approx. 30% copper and resin) – **unlisted waste**
- Containers fully emptied of substances and preparations that, pursuant to chemicals laws, are labelled with a "skull and crossbones - GHS06" or the "health hazard - GHS08" symbol or the "explosive - GHS01" hazard symbol – see **A4130**

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



- Beryllium copper waste and beryllium copper compounds in dispersible form – see **A1010** and **A1020**

NB: Beryllium and its compounds are to be classified as carcinogenic substances belonging to Category 2 (HP7 hazardous characteristic), beryllium-containing vapours and aerosols (atomised) cause lung damage.



Figure 196: Copper refinement materials with more than 0.3% lead compounds – HP10 hazardous characteristic according to EC legal status – unlisted waste or A1020

Figure 197: Ground linings from a copper mill – unlisted waste

87. WASTES OF LEATHER

Designation:
Green List B3090

Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A, A3100)

Other designations:

Waste of raw skived leather, glue leather, vegetable-tanned leather; chrome leather (chromium(III)-tanned)

Physical characteristics: solid

EWL:

04 01 01 fleshings and lime split wastes

04 01 02 liming waste

04 01 08 waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium

04 01 09 wastes from dressing and finishing

16 01 22 components not otherwise specified

Note: waste of leather seats

Designation in English:

Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent (= Cr(VI)) chromium compounds and biocides; leather wastes (chromium(III)-tanning)

Detailed description:

Leather is a material obtained by tanning the skin of animals (cows, calves, goats, pigs, horses, crocodiles, snakes etc.). Leather should be tanned only with chromium(III) salts, never with the highly toxic and carcinogenic hexavalent chromium compounds. Tanning with hexavalent chromium salts is now extremely rare in Europe but still practised in developing nations.

Wastes of the following materials should be subsumed under the Green List entry:

- raw skived leather
- glue leather
- waste leather tanned with vegetable tanning agents
- chrome leather (chrome leather trimmings) tanned with chromium (III) salts

Product lines:

Glue leather, raw gelatine leather and raw skived leather to be processed into collagen-based skins ("artificial sausage skins"), split leather processing and manufacture of edible gelatine or photo-gelatine



Figure 198: Wastes of leather

Demarcation from similar Green List wastes:

- Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides – see **B3100**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste leather dust, ash, sludges or flours containing hexavalent chromium compounds or biocides – see **A3090**
- Paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles and containing hexavalent chromium compounds or biocides – see **A3100**

88. WASTES OF LEATHER (DISPERSIBLE)

Designation:
Green List B3100

Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on List A, A3090)

Other designations:

Dispensible leather waste; fine particles of leather

Physical characteristics: solid-highly viscous

EWL:

04 01 08 waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium

04 01 09 wastes from dressing and finishing

Designation in English:

Leather dust, ash, sludges or flours not containing hexavalent chromium (Cr(VI)) compounds or biocides

Detailed description:

Leather is a material obtained by tanning the skin of animals (cows, calves, goats, pigs, horses, crocodiles, snakes etc.). Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides are classifiable on the Green List. Tanning with the highly toxic and carcinogenic hexavalent chromium compounds is now extremely rare in Europe but still practised in developing nations.

Demarcation from similar Green List wastes:

--- Paring and other wastes of leather or of composition leather – see **B3090**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

--- Leather dust, ash, sludges or flours when containing hexavalent chromium compounds or biocides – see **A3090**

--- Tanning sludge and ashing sludge – **unlisted waste**

89. MAGNESIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Magnesium scrap

Other designations:

Wastes and scrap of magnesium (Mg), cast magnesium scrap, magnesium foam blocks with more than 75% metallic magnesium (not contaminated, not flammable and not self-igniting)

Physical characteristics: solid

EWL:

02 01 10 waste metal
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Magnesium scrap; waste and scrap of magnesium

Detailed description:

- Rolling and drawing waste from magnesium alloys (sheets, pipes, bars, nozzles)
- Cast scrap
- Clean magnesium engraving plates
- Undercarriages and fuselage of aircraft and bicycle parts made of magnesium alloys
- Housing parts, rims, gaskets, engine cowl parts, engine covers, hand brake levers
- Magnesium foam blocks with more than 75% metallic magnesium (where the remainder is magnesium oxide or aluminium oxide and intermetallic Al-Fe-Mn precipitates) from magnesium casting (no dross) provided that the blocks are not contaminated, not flammable, and not self-igniting and do not emit hazardous quantities of flammable gases upon contact with water (pressure compaction with massive iron plates prevents the magnesium from igniting, which limits the oxide component)
- Magnesium briquettes (pressed magnesium chips) to the extent that they are not contaminated with mineral-oil hydrocarbons above the limit value set forth in the List of Waste Ordinance and to the extent that they do not fulfil the hazard characteristic under the Basel Convention H4.3 or UN Class 4.3

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.



Figure 199: Magnesium foam block

Figure 200: Magnesium scrap

Demarcation from similar Green List wastes:

- Housings, engine parts (oil-free) – see **GC010**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Magnesium foam blocks featuring hazardous characteristics (hazard characteristic under the Basel Convention H4.3 or UN Class 4.3) – see **AA190**
- Flammable and pyrophoric magnesium waste such as magnesium milling waste, file shavings, powder, magnesium salt slags; magnesium dross/absorptions (hazardous characteristic H4.3 of the Basel Convention or UN Class 4.3) – see **AA190**

NB: Magnesium powder and dust are highly inflammable. They react very violently to air and water. Magnesium fires must not be extinguished with water. The bright radiant light of burning magnesium may be harmful to the eyes!

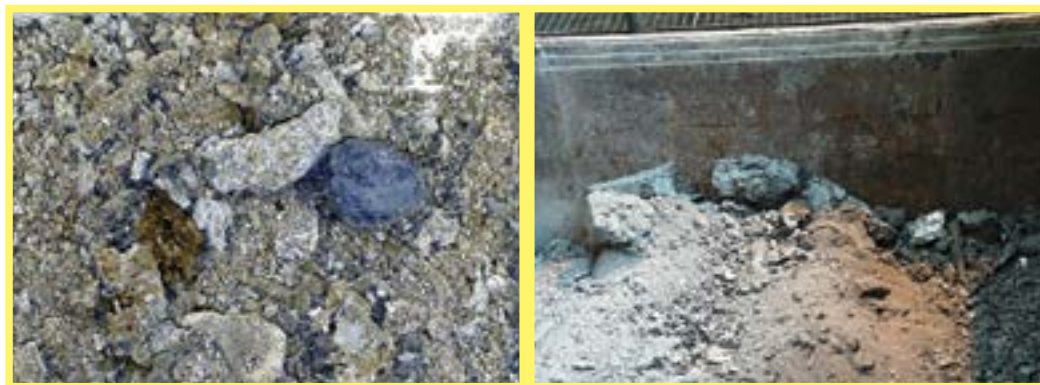


Figure 201: Magnesium dross – AA190

Figure 202: Magnesium dross with hazardous criteria H4.3 according to the Basel Convention – AA190

90. MANGANESE SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Manganese scrap

Other designations:

waste and scrap of manganese (Mn); waste ferromanganese

Physical characteristics: solid, metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Manganese scrap; waste and scrap of Manganese

Detailed description:

- Manganese alloy waste
- Ferromanganese waste (Ferromanganese is an intermediate alloy of iron, manganese and carbon. The manganese content ranges from 30% to 80%.)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Manganese-containing dry batteries and zinc-manganese dioxide storage batteries – entry B1090 must **not be used** in Austria. Alkali-manganese and zinc-manganese batteries as well as all other batteries are classified as waste on the Amber List as they exhibit a hazardous characteristic (cf. electrolytes) (see **A1170**).
- Manganese catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Manganese-containing dry batteries and zinc-manganese dioxide storage batteries (hazardous waste) – see **A1170**
- Electrodes removed from storage batteries or batteries – **unlisted waste**
- Manganese-containing galvanic sludge – see **A1050**
- Salts (manganates, permanganates, etc.), manganese compounds – **unlisted waste** or to the extent that they accumulate in the form of chemical waste – see **A4140**
- Manganese catalysts (contaminated) – see **A2030**

91. METAL CERAMIC WASTE

Designation:

Green List B2030

Cermets wastes and scrap (metal ceramic composites)

Other designations:

Cermets wastes and scrap (metal ceramic composites): waste from welding electrodes, hard-metal wastes

Physical characteristics: solid

EWL:

- 06 03 16 metal oxides other than those mentioned in 06 03 15*
- 06 08 99 wastes not otherwise specified (waste from the manufacture, formulation, supply and use of silicon and silicon compounds in the case of silicon carbide)
- 12 01 03 non-ferrous metal filings and turnings
- 12 01 99 wastes not otherwise specified
- 16 03 04 inorganic wastes other than those mentioned in 16 03 03* (off-specification batches and unused products)

Designation in English:

Cermets wastes and scrap (metal ceramic composites); hard metal waste, metal ceramic waste, zirconium ceramics, waste from welding electrodes

Detailed description:

Cermets is the designation for a group of materials with two separate phases (a metallic and a ceramic component). The ceramic part gives it great hardness, a high melting point, significant heat-resistance and scaling resistance. The metallic part improves the resistance to temperature changes, the toughness, and resistance to impact.

Examples of cermets components:

- Aluminium oxide, magnesium oxide, chromium(III)-oxide, silicon dioxide, zirconium oxide components (ceramic component) with metallic components of aluminium, beryllium, cobalt, chromium, iron, chromium-nickel-iron, magnesium, silicon, molybdenum
- Chromium-, silicon-, tantalum-, titanium-, tungsten carbide (ceramic component) with metallic components of nickel, aluminium, cobalt, chromium, silicon, iron, nickel, tungsten, super-alloy, nickel-aluminium
- Chromium boride, titanium boride, zirconium boride (ceramic component) with metallic components of nickel, nickel-aluminium, cobalt, iron
- Molybdenum silicide (ceramic component) with metallic components of cobalt, chromium, iron, nickel, platinum or titanium nitride (ceramic component) with metallic component of nickel

The following should be subsumed under the Green List entry:

- Waste of special tools (hard metals such as tungsten carbide, etc.), metal ceramics (zirconium ceramics, etc.) and welding electrodes

Demarcation from similar Green List wastes:

- Waste of refractory linings, including crucibles from the smelting of copper (non-contaminated) – see **B1100**
- Residues containing refractory metals (metals with a high melting point) – see **B1030**
- Furnace linings from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics – ceramic waste – see **GF010**
- Mixtures of waste classified under entry B2030 in non-dispersible form (= cermet and ceramic fibres not listed or included in another entry) – see **section 3c) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Furnace linings from metallurgical and non-metallurgical processes such as crucibles with hazardous contamination – **unlisted waste**

92. MOLYBDENUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Molybdenum scrap

Other designations:

wastes and scrap of molybdenum (Mo); ferromolybdenum waste

Physical characteristics: solid, in non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Molybdenum scrap; waste and scrap of Molybdenum

Detailed description:

- Molybdenum alloy waste such as ferromolybdenum, nickel-molybdenum, nickel-chromium molybdenum
- Molybdenum aircraft scrap and rocket parts (heat shield)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Metallic molybdenum waste and alloys in dispersible form – see **B1031**
- Molybdenum carbide waste (residues of refractory metals) – see **B1030**
- Molybdenum catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Molybdenum compounds other than carbides (e.g. finely powdered molybdenum sulphide with a particle size ranging from 1 to 100 µm is a general dry technical lubricant), molybdenum sludge, molybdenum-containing filter cake – **unlisted waste** or if molybdenum compounds accumulate as chemical waste – see **A4140**
- Molybdenum-containing filtration dust – see **A4100**
- Molybdenum catalysts (contaminated) – see **A2030**

93. FOOD WASTE

Designation:
Green List B3060

Wastes arising from the agro-food industries provided they are not infectious: other wastes from the agro-food industry, excluding by-products which meet national and international requirements and standards for human or animal consumption

Other designations:

Food waste (exclusively limited to off-specification batches from production), waste from the milk industry and dairy farms, parts of slaughtered animals (category 3 of EC Regulation No 1069/2009) that are not intended for human consumption

Physical characteristics: solid-sludge-like, liquid

EWL:

- 02 01 02 animal-tissue waste
- 02 01 03 plant-tissue waste
- 02 02 02 animal-tissue waste
- 02 02 03 materials unsuitable for consumption or processing
- 02 03 04 materials unsuitable for consumption or processing
- 02 03 99 wastes not otherwise specified
- 02 04 99 wastes not otherwise specified
- 02 05 01 materials unsuitable for consumption or processing
- 02 05 99 wastes not otherwise specified
- 02 06 01 materials unsuitable for consumption or processing
- 02 06 99 wastes not otherwise specified
- 02 07 01 wastes from washing, cleaning, and mechanical reduction of raw materials
- 02 07 04 materials unsuitable for consumption or processing
- 02 07 99 wastes not otherwise specified

Designation in English:

Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

Detailed description:

Apart from the provisions of the EC Waste Shipment Regulation, veterinary regulations apply to such waste.

The Green List includes waste from the agro-food industry (limited to production waste), but exclusively waste of category 3 within the meaning of EC Animal By-product Regulation No 1069/2009 such as:

- Food waste exclusively from production (off-specification batches) such as pizza dough slices (with or without toppings); off-specification batches of beer, cheese waste from manufacturing, etc.
- Vegetable foodstuffs (fruit, vegetable) past the expiry date from markets and food retailers in unpackaged form
- Animal parts that are edible (but, for commercial reasons, are not intended for human consumption) and inedible animal parts (that do not show clinical signs of disease communicable to humans or animals and originate from carcasses that are suitable for consumption under Community law)
- Blood from animals that do not show evidence of any disease that is communicable to humans or animals, blood from the following animals that are slaughtered in an abattoir after they have undergone an ante-mortem inspection and been classified as suitable for slaughter for human consumption in accordance with Community law:
 - Animals other than ruminants that must be tested for TSE (Transmissible Spongiform Encephalopathies) as well as
 - ruminants that have negative test results;

- Waste from the reclamation of products intended for human consumption, including milk and dairy products and eggs
- Food products of animal origin, but only production waste (excluding catering waste from kitchens, canteens, the food and drink-serving industry, waste from the collection of biodegradable waste, or food past the expiry date such as tinned meat that was already placed on the market), which, due to manufacturing problems or defects are no longer intended for human consumption but which do not constitute a health hazard to humans or animals
- Spoiled raw milk from animals
- Waste egg shells and eggs from animals that do not show clinical signs of disease communicable by such products to humans or animals
- Animal fat in category 3 (note: animal fat in categories 1 and 2 as well as mixtures thereof require approval according to EC Animal By-product Regulation No 1069/2009 and do not fall within the scope of the EC Waste Shipment Regulation)

Examples of animal by-products in the non-waste range (product)

(refrigerated transport is generally required in this case)

- Processed animal proteins (meat-and-bone meal, blood meal, etc.) and animal fat that is derived exclusively from material of category 3 and has been processed according to the requirements of the Food Hygiene Regulation in such a way that it can be used directly as raw material for manufacturing animal feed, or in animal feed in any other way permissible, including food for pets and animals raised for their fur or for chewing toys (edible material) or for the pharmaceutical and cosmetics industry and gelatine production
- Feather meal of category 3 that is used as a starting material for hydrolyzates, which serves as strewing material in dancing schools
- Animal fat exclusively from category 3-material for the manufacture of technical lubricants
- Secondary raw materials of animal origin, in accordance with Appendix 1 of the Fertiliser Ordinance, Federal Law Gazette II No 100/2004, as amended, that are intended for the manufacture of permissible fertiliser according to the provisions of the Animal By-product Regulation (EC), No 1069/2009
- Bones (marrowbones) used in the animal feed or food line for the production of gelatine and bone glue
Note: in no case cattle skull bones or skull bones of goats and sheep
- Offal of category 3 that, for instance, is not typically intended for human consumption in any given country (e.g. bulls' testicles, udders, etc.), but usable in the pet food industry
- Waste from raw milk, milk and dairy products, eggs, greaves intended for animal feed production

NB: Processed animal proteins (such as meat-and-bone meal, hydrolyzates of animal proteins, blood meal) of categories 1 to 3 (from rendering facilities) are subject to the veterinary approval requirements according to EC Animal By-product Regulation, No 1069/2009 and are therefore exempt from the provisions of the EC Waste Shipment Regulation.



Figure 203: Meat meal (processed animal protein) does not fall within the scope of the EC Waste Shipment Regulation

Demarcation from similar Green List wastes:

- Dried and sterilised vegetable waste, residues and by-products, whether or not in the form of pellets or a kind used in animal feed, not elsewhere specified or included – see **B3060**
- Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit hazardous contamination – see **B3065**
- Fish waste – see **B3060**
- Biodegradable wastes from agriculture, horticulture, forestry, gardens, parks and cemeteries (such as lawn clippings, grass clippings and foliage, fallen fruit, vegetable and cereal remains, seeds, withered flowers, cuttings from pruning, tree-cutting debris, etc.) - see **BEU05** (Annex IIIB)

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Leftover food, kitchen and canteen waste from restaurants, catering establishments and kitchens, including industrial and household kitchens (category 3 material according to EC Animal By- products Regulation, No 1069/2009 – see **Y46** (waste collected from households)
- Waste collected from organic waste containers (biological waste) (improperly sorted materials!) as well as food past the expiration date packed or without packaging (e.g. from food retailers, fast-food chains), which has already been placed on the market – see **Y46** (waste collected from households)
- Grease trap contents, flotation substances, and sewage sludge – see **AC270**
- Separated animal fats and oils from sewage treatment (fat separation) – **unlisted waste**
- Other biogenic waste (excluding that listed under BEU05 in Annex IIIB) in the form of mixtures with other waste/contaminants or contaminated organic wastes – **unlisted waste**
- Tobacco waste – **unlisted waste**
- Screen overflow from mechanical-biological treatment – **unlisted waste**

NB: Offal, carcasses, confiscated goods of categories 1 and 2 according to EC Regulation No 1069/2009 are exempt from the provisions of the EC Waste Shipment Regulation. The exemption from the provisions of the EC Waste Shipment Regulation also applies to catering waste or leftover food from international transport (= category 1 material).

Gastrointestinal contents (category 2 material) and infectious waste (according to veterinary law) do not fall within the scope of the provisions of the EC Waste Shipment Regulation. Faeces, solid and liquid manure (category 2 material) are subject to the veterinary approval requirements of EC Animal By-product Regulation No 1069/2009 rather than to the EC Waste Shipment Regulation.

The same is true of faeces, solid and liquid manure that are recovered in agriculture from farms, since such waste is exempted from the scope of the EC Waste Framework Directive and thus from the EC Waste Shipment Regulation, as well.

94. FOOD WASTE (VEGETABLE)

Designation:

Green List B3060

Wastes arising from the agro-food industries provided they are not infectious: dried and sterilised vegetable waste, residues and by-products, whether or not in the form of pellets, of a kind used in animal feed, not elsewhere specified or included

Other designations:

Oil seed press residues, beet pulp, vegetable waste from the canning industry and frozen food manufacture

Physical characteristics: solid

EWL:

- 02 01 03 plant-tissue waste
- 02 03 04 materials unsuitable for consumption or processing
- 02 03 99 wastes not otherwise specified
- 02 04 99 wastes not otherwise specified
- 02 07 04 materials unsuitable for consumption or processing
- 02 07 01 wastes from washing, cleaning, and mechanical reduction of raw materials
- 20 02 01 compostable waste

Designation in English:

Dried and sterilized vegetable waste, residues and by-products, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included

Detailed description:

- Dried and sterilised vegetable waste, including pellets or animal feed, such as oil seed press residues, beet pulp, apple pomace
- Residues from the vegetable canning and frozen food industry (production waste only)



Figure 204: Apple pomace

Demarcation from similar Green List wastes:

- Waste edible fats and oils of vegetable origin, provided they do not exhibit hazardous contamination – see **B3065**
- Other wastes from the agro-food industry, excluding by-products which meet national and international requirements and standards for human or animal consumption – see **B3060**
- Biodegradable waste from agriculture, horticulture, forestry, gardens, parks and cemeteries (such as lawn clippings, grass clippings and foliage, fallen fruit, vegetable and cereal remains, seeds, withered flowers, cuttings from pruning, tree-cutting debris, etc.) - see **BEU05** (Annex IIIB)
- Vegetables foodstuffs (fruit, vegetable) past the expiration date from markets and food retailers in unpackaged form – see **B3060** (other waste arising from the agro-food industry)

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste from the collection of biological waste, vegetable food waste originating from canteens, industrial kitchens, the food and drink serving industry (with or without packaging) – see **Y46** (waste collected from households)
- Tobacco waste – **unlisted waste**
- Screen overflow residues from mechanical-biological treatment – **unlisted waste**

95. NON-FERROUS METALS, MIXED

Designation:
Green List B1050

Mixed non-ferrous metals, heavy fraction (shredder scrap) not containing Annex I (Basel Convention) materials in concentrations sufficient enough to exhibit Annex III (Basel Convention) characteristics

Other designations:

Heavy fraction shredder scrap; non-ferrous metal shredder scrap, heavy fraction of non-ferrous metal

Physical characteristics: solid, in metallic, non-dispersible form

EWL:

16 01 18 non-ferrous metal
 17 04 07 mixed metals
 19 10 02 non-ferrous waste
 19 10 06 other fractions other than those mentioned in 19 10 05*
 19 12 03 non-ferrous metal

Designation in English:

Mixed non-ferrous metal heavy shredder fraction

Detailed description:

The heavy fraction of non-ferrous metal scrap is a mixture of non-ferrous metals such as copper, aluminium, zinc, left-over cables, other non-ferrous metal scrap, but also - depending on the sorting method - greater or lesser amounts of non-metallic components such as slices of waste tyres, plastic waste, left-over fabric/textile wastes, glass, gravel, and soil.

To be classifiable on the Green List, the waste must not have a high percentage of lead compounds (limit value: 0.3% - reproductive toxicity), PCB/PCT (as defined within the EC PCB Directive (limit value: 30 mg/kg (DM)) or includes mineral oil hydrocarbons (see criteria for classification of waste on the Green Waste List and for the limit values according to the List of Waste Ordinance)).

Mixtures of non-ferrous metal scrap (heavy fraction scrap), whose percentage of non-hazardous, non-metallic contamination exceeds 10%, requires notification and authorisation by the Federal Ministry of Agriculture, Forestry, Environment and Water Management for transboundary shipment.



Figure 205: Non-ferrous metal shredder scrap

Figure 206: Non-ferrous metal shredder scrap

Demarcation from similar Green List wastes:

- Homogeneous scrap – see the specific entries under **B1010** or **B1020**
- Mixtures of waste under entries B1010 (ferrous and non-ferrous metals) + B1050 – see **section 2a) of the Annex IIIA**
- Mixtures of waste under entries B1010 (ferrous and non-ferrous metals) + B1070 (waste of copper and copper alloys in dispersible form) – see **section 2b) of Annex IIIA**
- Mixtures of waste under entry B1010 (ferrous and non-ferrous metals) – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- "Flavoured shredder wastes", which mainly consist of the light shredder fraction (fluff) with low non-ferrous metal content – see **A3120** fluff (or unlisted waste, if applicable)
- Non-ferrous metal shredder fractions with less than 90% metal content and the rest is fluff – **unlisted waste**
- Contaminated shredder fractions (e.g. with oil or PCB) – **unlisted waste** or listed according to the main contaminants on list A (Amber Waste List)
- Light shredder fraction (fluff) – see **A3120**
- Shredder waste tailings with low metal content – **unlisted waste**
- Mixtures of waste of entries B1010 (ferrous and non-ferrous metals) + B1050 with less than 90% metal content or with hazardous contamination – **unlisted waste**
- Mixtures of metal scrap from B1010 + B1020 or metal scrap from Annex IIIA + B1020 – see **A1020**
- Containers fully emptied of substances and preparations that, pursuant to chemicals law, are labelled with a "skull and crossbones - GHS06" or the "health hazard - GHS08" symbol or the "explosive - GHS01" hazard symbol as well as tight-head drums that contain oils or other hazardous viscous substances – see **A4130**

Pictograms pursuant to the Globally Harmonized System:

Skull and crossbones

Health hazard

Explosive



- Compressed-gas containers that have been cleared of residue and are no longer pressurised with flammable propellant – see **A4130**



Figure 207: Light shredder fraction – A3120

Figure 208: Light shredder fraction – A3120



Figure 209: Light shredder fraction – A3120

Figure 210: Light shredder fraction contaminated with oil – A3120



Figure 211: Light shredder fraction – A3120

Figure 212: Residues from waste processing (mixtures) with low metal content - unlisted waste



Figure 213: Metal concentrate, mainly aluminium, from incineration slags, a metal percentage under 90% - unlisted waste

Figure 214: Metal concentrate, mainly aluminium, from incineration slags, a metal percentage under 90% - unlisted waste

96. NICKEL SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Nickel scrap

Other designations:

Wastes and scrap of nickel (Ni), Monel scrap (nickel-copper-iron alloy), nickel-silver scrap (nickel-copper-zinc alloy); formerly known by such names as "Alpaka", "Argentan", "Minargent", "Pakfong"; plata alemana ("German silver")

Physical characteristics: solid, in metallic non-dispersible form

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Nickel scrap, waste and scrap of nickel, monel scrap, MU-metal, alnico, German silver, nickel silver

Detailed description:

- Nickel scrap (sheet, plate, pipes, rods)
- Monel scrap and shavings, soldered pieces of Monel and sheets, copper-nickel scrap (pipes, sheet, plate)
- Nickel-silver scrap

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

NB: Nickel oxide is classified as carcinogenic (HP7: 0.1%). Nickel compounds are classified as carcinogenic (categories 1 to 3; limit value: 0.1% or 1%).

Scrap must therefore contain virtually no nickel compounds (e.g. oxides, dross, slag or ash components)!

Metallic nickel in dispersible form is classified as carcinogenic, category 3, and therefore excluded from the Green List (limit value: 1%)!

Demarcation from similar Green List wastes:

- Raney nickel catalysts – see **B1120**, provided they are not contaminated with hazardous substances (e.g. from the process)
- Mixtures of waste under entries B1010 and B1050 – see **section 2a) of Annex IIIA**
- Mixtures of waste under entries B1010 and B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Nickel-cadmium batteries, nickel/iron, nickel/nickel hydride storage batteries (hazardous wastes, cf. also electrolyte) – see **A1170**
- Nickel electrodes removed from nickel storage batteries – **unlisted waste**
- Nickel catalysts, contaminated – see **A2030**
- Nickel dust and nickel powder (in dispersible form), nickel-containing slag, ashes, dross – **unlisted waste**
- Nickel salts and nickel oxide, to the extent that they are accrued as chemical waste – see **A4140**
- Nickel-containing galvanic sludge – see **A1050**
- Nickel-containing waste liquors from the pickling of metals – see **A1060**

97. NIOBIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: niobium scrap

Other designations:

Waste and scrap of niobium (=columbium) (Nb)

Physical characteristics: solid, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Niobium scrap; waste and scrap of Niobium (Columbium)

Detailed description:

- Niobium alloy waste (such as special high-grade steel and non-ferrous alloys), e.g. from pipeline construction
- Ferroniobium and nickel niobium waste (super alloys), e.g. waste from gas turbines, rocket parts and heat-resistant components

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Metallic niobium waste in dispersible form – see **B1031**
- Niobium carbide (residues of refractory metals) – see **B1030**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Niobium waste contaminated with hazardous substances – **unlisted waste**
- Waste of components from high-powered sodium vapour-discharge lamps – **unlisted waste**

NB: Applications of niobium in nuclear technology! Pure niobium may come from nuclear reactors (cladding material) or from nuclear submarines – radioactively contaminated niobium waste is subject to radiation protection provisions

98. PAPER AND CARDBOARD WASTE

Designation:
Green List B3020

Paper, paperboard (cardboard), and paper product wastes, provided they are not mixed with hazardous wastes

Other designations:

Cardboard waste, scraps of paper and cardboard, cardboard articles, Tetrabricks, Tetrapacks, scrap paper, scrap paper-board

Physical characteristics: solid

EWL:

15 01 01 paper and cardboard packaging

15 01 05 composite packaging

19 12 01 paper and cardboard

20 01 01 paper and cardboard

Note: to the extent that it is clean and that there are few improperly sorted materials for the Green List!
Designation in English:

Waste and scrap of paper, paperboard, paper product wastes, unbleached paper or paperboard, corrugated paper or paperboard, other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass, paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter); laminated paperboard, unsorted paper scrap, millboard, carton, cardboard

Detailed description:

Waste paper submitted to recovery.

 The classification of paper types is pursuant to EN 643: European List of Standard Grades of Paper and Board for Recycling or CEPI – European List of Standard Grades of Recovered Paper and Board. The standard grades list can be found at the [website of the Organisation PaperOnWeb](#).

The following wastes and scrap of paper and paperboard are to be subsumed under this category:

- Unbleached paper and corrugated paper and unbleached paperboard and corrugated paperboard
- Other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- Paper and paperboard made mainly of mechanical pulp (e.g. newspapers, journals and similar printed matter)
- Clean, separated beverage cartons ("Tetrabricks", "Tetra Paks") with metallic and/or plastic coatings
- Unsorted waste (e.g. misprints)
- Laminated paper (but only if the paper content is higher in comparison to the plastic or aluminium content)

Non-coated/laminated waste paper:

The percentage of permissible contamination with other Green List wastes may not exceed 10%. From this amount, the percentage of carbon and carbonless copy paper (Amber List wastes: AD090) amounts to a max. of 3%. Laminated cardboard and composite paper are also considered contaminants.

Coated/laminated waste paper:

For coated/laminated waste paper, the non-hazardous contaminant part must not exceed 10%. The share of other paper waste must not exceed 20 %, and, at maximum, 3 % of the latter may be carbon and carbonless copy paper (Amber List wastes: AD090).



Figure 215: Pre-sorted collected waste paper

Figure 216: Cardboard waste



Figure 217: Beverage boxes

Figure 218: Waste paper shredded in bales

Demarcation from similar Green List wastes:

- "Tear-resistant paper" – see **B3010**
- Composite packaging which primarily consists of paper and a small amount of plastic and does not contain residues, and which are not classified as B3020 of the Basel Convention – see **BEU04** (Annex IIIB)
- Waste from self-adhesive labels that contain raw materials from label production – see **B3027**
- The following wastes from the pre-treatment of composite packaging for liquids, of which none contain Annex I (Basel Convention) substances in such concentrations as to exhibit Annex III (Basel Convention) characteristics:
 - Non-separable plastic fraction
 - Non-separable plastic-aluminium-fraction – see **B3026**
- Mixtures of waste classified under Basel entry B3020 (paper) - restricted to unbleached paper or paperboard and of unbleached corrugated paper or cardboard, other paper or cardboard made mainly of bleached chemical pulp, not coloured in the mass, and other paper or cardboard made mainly of mechanical pulp (for example, newspapers, journals, and similar printed matter) – see **section 3g** of **Annex IIIA**
Note: no coated/laminated/glued paper is permitted in this mixture!

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Non-separated composite cardboard waste (Tetrabricks) and waste paper in the form of municipally collected household garbage, commercial waste or household waste – see **Y46** (waste collected from households)
- Other mixtures of waste from paper and paperboard than those named in the entry under **section 3g) of Annex IIIA**, e.g. those that contain coated paper in the mixture – **unlisted waste**
- Oil- and bitumen-impregnated paper, tarpaper – **unlisted waste**
- Thermal paper and carbonless copy paper – see **AD090**
- Carbon paper – see **AD090**
- Rejects from the paper industry (waste paper treatment) – mixture of plastic, paper, some paper fibre, metal components, etc. – **unlisted waste**
- Insulation waste composed of renewable raw materials (e.g. cellulose) that are classified as hazardous due to their content of biocides or flame retardants (cf. boron compounds (reproductive toxicity H360, category 1B from 0.3%) – **unlisted waste**
- Paper fibre sludge – see **AC270** (sewage sludge) or **unlisted waste**
- Paper dust (explosive) – **unlisted waste**
- De-inking sludge – **unlisted waste**
- Tall soap from pulp production (mixture of resin acids, fatty acids and sterols – "black liquor") for the production of raw tall oil and subsequently tall oil or for destined for energy recovery – **unlisted waste**
- Mixtures from B3026 (PE fraction and PE/aluminium fraction from the pre-treatment of beverage boxes) and B3027 (self-adhesive label waste) – **unlisted waste** (no entry in Annex IIIA)
- Paper fibre fraction/fibre sludge from the pre-treatment of beverage boxes – see **AC270** or **unlisted waste**



Figure 219: Rejects – unlisted waste



Figure 220: De-inking sludge - unlisted waste



Figure 221: Paper fibre sludge – AC270



Figure 222: Paper fibre sludge – AC270

99. FUNGUS MYCELIUM

Designation:

Green List B3070

Deactivated fungus mycelium from penicillin production to be used as animal feed

Other designations:

Mould filaments from antibiotics production

Physical characteristics: solid-highly viscous; powdery (dried)

EWL:

07 05 14 solid wastes other than those mentioned in 07 05 13*

07 05 99 wastes not otherwise specified

Designation in English:

Deactivated fungus mycelium from penicillin production to be used as animal feed

Detailed description:

Mycelium refers to all the thread-like cells of a fungus. Such waste must be intended for animal feed

Demarcation from similar Green List wastes:

- Dried and sterilised vegetable waste, residues and by-products, whether or not in the form of pellets or a kind used in animal feed, provided not elsewhere specified or included – see **B3060**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Residues from penicillin production or fungus mycelium with hazardous contamination – see **A4010**

100. REFRACTORY METAL RESIDUES

Designation:

Green List B1030

Refractory metals containing residues

Other designations:

Refractory metal scrap; metallic wastes and scrap of:
titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr),
molybdenum (Mo), tungsten (W), rhenium (Re)

Physical characteristics: solid, in non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
16 01 18 non-ferrous metal
19 10 02 non-ferrous waste
19 12 03 non-ferrous metal
20 01 40 metals

Designation in English:

Refractory metals containing residues

Detailed description:

Refractory metals are metals of the 4th subgroup (titanium, zirconium and hafnium), 5th subgroup (vanadium, niobium and tantalum) and 6th subgroup (chromium, molybdenum and tungsten).

Refractory metals are characterised by a particularly high melting point.

The strict set of refractory metals includes tungsten, rhenium, tantalum, molybdenum and niobium.

Refractory metals are used in furnace construction (e.g. for protective atmosphere or vacuum furnaces) to make resistance heating or induction heating elements. Molybdenum is used for smelting electrodes, nozzles and the manufacture of pipes.

Demarcation from similar Green List wastes:

- Metal scrap in non-dispersible metallic form: titanium scrap, zirconium scrap, hafnium scrap, chromium scrap, molybdenum scrap, tungsten scrap, vanadium scrap, niobium scrap, tantalum scrap, rhenium scrap – see **B1010**
- Scrap refractory metals such as molybdenum, tungsten, titanium, tantalum, niobium and rhenium as metals and metal alloys in metallic dispersible form – see **B1031**
- Catalysts (cleaned) containing molybdenum, tungsten, titanium, tantalum, niobium and rhenium, or hafnium, zirconium or chromium – see **B1120**
- Furnace linings from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics – ceramic waste – see **GF010**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Dross, slag, ash, press cake, filter cake (metal hydroxide) containing refractory metals and refractory metal compounds – **unlisted waste**
- Refractory metal-containing filter dust or fly ash from off-gas cleaning – see **A4100**
- Refractory metal-containing furnace linings from metallurgical and non-metallurgical processes with hazardous characteristics – **unlisted waste** or listed in accordance with the contaminants on list A (Amber Waste List)
- Refractory metal-containing galvanic sludge – see **A1050**
- Catalysts containing refractory metals (contaminated) – see **A2030**

101. REFRACTORY METALS (DISPERSIBLE)

Designation:
Green List B1031

Molybdenum, tungsten, titanium, tantalum, niobium, and rhenium metal and metal alloy wastes in metallic dispersible form (metal powder), excluding such wastes as specified in list A under entry A1050, galvanic sludge

Other designations:

Dispersible refractory metal scrap or metallic waste and scrap of:

titanium (Ti), niobium (Nb), tantalum (Ta), molybdenum (Mo), tungsten (W), rhenium (Re)

Physical characteristics: solid, in metallic dispersible form

EWL:

- 10 08 04 particulates and dust
- 12 01 03 non-ferrous metal filings and turnings
- 12 01 04 non-ferrous metal dust and particles
- 16 01 18 non-ferrous metal
- 19 10 02 non-ferrous waste
- 19 12 03 non-ferrous metal
- 20 01 40 metals

Designation in English:

Molybdenum, tungsten, titanium, tantalum, niobium and rhenium metal and metal alloy wastes in metallic dispersible form (metal powder); refractory metal scrap in metallic dispersible form

Detailed description:

Metallic dispersible wastes such as fine particles and powder of molybdenum, tungsten, titanium, tantalum, niobium, and rhenium should be subsumed under this category, but not waste that contains the above metals in the form of compounds.

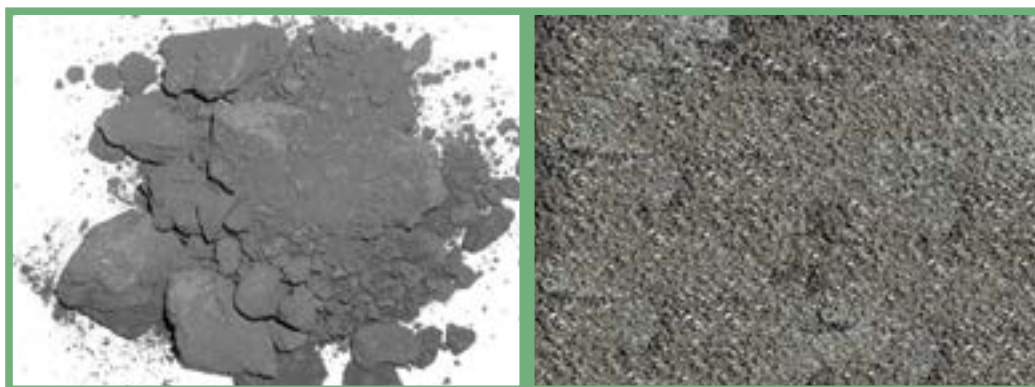


Figure 223: Tungsten waste (grinding operations)

Figure 224: Niobium powder

Demarcation from similar Green List wastes:

- Residues of refractory metals (= high melting point metals) in non-dispersible form – see **B1030**
- Metal scrap in non-dispersible metallic form: titanium scrap, molybdenum scrap, tungsten scrap, niobium scrap, tantalum scrap, rhenium scrap – see **B1010**
- Catalysts (cleaned) containing molybdenum, tungsten, titanium, tantalum, niobium and rhenium – see **B1120**
- Furnace linings from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics – ceramic waste – see **GF010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Dross, slag, ash, press cake, filter cake (metal hydroxide) containing refractory metals and refractory metal compounds – **unlisted waste**
- Refractory metal-containing filter dust or fly ash from off-gas cleaning – see **A4100**
- Refractory metal-containing furnace linings from metallurgical and non-metallurgical processes (with hazardous characteristics) – **unlisted waste**
- Refractory metal-containing galvanic sludge – see **A1050**
- Refractory metal-containing catalysts (contaminated) – see **A2030**

102. RHENIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Rhenium scrap

Other designations:

Wastes and scrap from Rhenium (Re)

Physical characteristics: solid, metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Rhenium scrap; waste and scrap of Rhenium

Detailed description:

- Waste wire and wire mesh (from mass spectrometers, hot cathodes)
- Super alloy waste, e.g. certain gas turbine parts
- Waste from sintering of rhenium powder in a vacuum or in hydrogen atmosphere (compact pieces with a density up to 90% of the metallic element)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Rhenium catalysts (cleaned) – see **B1120**
- Metallic rhenium waste and alloys in dispersible form – see **B1031** (usually traded in the form of this metal powder)
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Rhenium catalysts from the petroleum industry (contaminated), e.g. rhenium catalysts from the manufacture of lead-free high-octane petrol – see **A2030**
- Dross, ash, slag, press cake, filter cake (metal hydroxide) containing rhenium – **unlisted waste**

103. WASTE SALT (NaCl, KCl, CaCl₂)

Designation:

Green List B2040

Other wastes containing principally inorganic substances: Sodium, potassium, calcium chlorides

Other designations:

Salt waste; NaCl (sodium chloride) waste; KCl (potassium chloride) waste; CaCl₂ (calcium chloride) waste; rock salt waste (sodium chloride with potassium chloride components)

Physical characteristics: solid - highly viscous - liquid

EWL:

01 04 11 wastes from potash and rock salt processing other than those mentioned in 01 04 07*

06 03 14 solid salts and solutions other than those mentioned in 06 03 11* and 06 03 13*

Designation in English:

Sodium chloride (NaCl), potassium chloride (KCl), calcium chlorides (CaCl₂) rock salt wastes (sodium chloride with potassium chloride components)

Detailed description:

- Calcium chloride forms hygroscopic (water-attracting) crystals and causes irritation
- Sodium chloride waste and potassium chloride waste

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Waste snow or street sweepings, mixed with road salt – **unlisted waste**
- Salt-contaminated excavated soil – **unlisted waste**
- Hardening salt waste from the metal industry – **unlisted waste**
- Waste of other salts or sodium, potassium, and calcium chloride waste contaminated with hazardous substances – see **A4140**, to the extent that they accumulate in the form of chemicals or **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Aluminium salt slag – **unlisted waste**

104. ACIDS OR ALKALINES

Designation:

Green List B2120

Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A, A4090)

Other designations:

Waste from acidic or basic solutions, if necessary specific acids and alkalines will be mentioned explicitly

Physical characteristics: liquid or solid

EWL:

- 06 01 06* other acids
- 06 01 99 wastes not otherwise specified
- 06 02 05* other bases
- 06 02 99 wastes not otherwise specified
- 20 01 14* acids
- 20 01 15* alkalines

Note: it is important to observe the pH values.

Designation in English:

Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous;

Examples: Acidic solutions: waste of highly diluted hydrochloric acid, citric acid, diluted acetic acid, lactic acid waste, mineral water waste, sour milk waste, distilled water with non-hazardous contaminants

Basic solutions: waste of soap suds, diluted ammonia solution or highly diluted caustic potash solution or sodium or potassium hydroxide solution

Detailed description:

This category includes only acids or alkalines within the specified pH range that exhibit low contamination (e.g. "technically pure") and are intended for neutralisation purposes, for example.

Examples:

- Waste of highly diluted hydrochloric acid, citric acid (waste lemon juice), diluted acetic acid waste (vinegar waste) or lactic acid, mineral water waste, sour milk, distilled water with non-hazardous contaminants
- Waste soap lye, diluted ammonia solution or highly diluted sodium hydroxide solution

Demarcation from similar Green List wastes:

There is no demarcation from a relevant similar category on the Green Waste List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Copper etching solutions and/or pickling liquors – see **A1060** or **A1130**
- Chromosulphuric acid (hexavalent highly toxic chromium) – see **A1040** or **A4090**
- Acid tar – see **A3190**
- Waste acidic or basic solutions (e.g. waste water) with a pH greater than 2 but less than 11.5 and with hazardous contamination – see **A4090**
- Acids with a pH under 2 (e.g. battery acid, i.e. sulphuric acid, undiluted hydrochloric acid, nitric acid, "aqua regia", i.e. mixture of hydrochloric acid and nitric acid), and alkaline solutions with a pH value greater than 11.5 (e.g. caustic potash or sodium hydroxide solutions, liquid or in the form of pellets) – see **A4090**

Note: The pH can be determined using indicator paper.

105. END-OF-LIFE VESSELS (DEPOLLUTED)

Designation:

Green List GC030

Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste

Other designations:

End-of-life ships; ships intended for dismantling

Physical characteristics: solid

EWL:

There is no specific category in the European List of Waste; possibly classifiable under 16 01 06 End-of-life vehicles containing neither liquids nor other hazardous components.

Designation in English:

Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste; ship wreck

Detailed description:

Ships and other floating structures intended for dismantling (with no cargo or substances resulting from operation of the ship that are classifiable as hazardous substances or hazardous waste) must not contain any hazardous cargo components or ingredients, especially residues of fuels and oils (e.g. mineral oils – see A3020), asbestos (e.g. in wall coverings or insulating materials – see A2050) or PCBs (e.g. in paints, floor coverings – see A3180).

Demarcation from similar Green List wastes:

- End-of-life motor vehicles, containing neither hazardous liquids nor other hazardous components (removal of hazardous substances) – see **B1250**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Vessels and other floating structures containing hazardous cargoes or hazardous substances (such as oil, PCBs, asbestos, etc.) – **unlisted waste**
- End-of-life motor vehicles and old car parts that still contain hazardous liquids or other hazardous components – **unlisted waste**
- Residues from vehicle scrapping (light shredder fraction, fluff) – see **A3120**
- Non-ferrous metal heavy-fraction scrap from the shredding of end-of-life vehicles or ships with hazardous contamination such as oil, PCBs (mixed materials) or high non-metallic components such as rubber, plastic, textiles (more than 10%) – **unlisted waste**

106. RARE EARTH METAL SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Rare earth metal scrap

Other designations:

Rare earth metal scrap; scrap of lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and radioactive promethium (Pm)

Physical characteristics: solid in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Rare earth metal scrap; waste and scrap of rare earth metals

Detailed description:

Rare earth metals or lanthanides include the following elements:

Lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, and radioactive promethium

--- Waste of permanent magnets based on cobalt-samarium

--- Mixed cerium metal waste

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Spent catalysts excluding liquids used as catalysts, containing the following: lanthanides (rare earth metals): lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Rare earth metal compounds that accumulate in the form of chemical waste – see **A4140**, otherwise **unlisted waste**
- Rare-earth-metal-containing fluorescent tubes – see **A2010** or **A1030 (Hg)**
- Phosphors from monitors and gas-discharge lamps – see **A4070**
- Waste from the manufacture, preparation and use of inks, dyes, pigments, paints, lacquers and varnishes – see **A4070**
- Slag, dust, ash that contain rare earth metals – **unlisted waste**
- Fly ash and dusts that contain rare earth metals – see **A4100**

NB: Promethium is a radioactive rare earth metal, relevant radiation protection requirements must be observed.

107. SULPHUR (SOLID)

Designation:

Green List B2040

Other wastes containing principally inorganic constituents: sulphur in solid form

Other designations:

Sulphur in solid form; waste sulphur

Physical characteristics: solid

EWL:

05 01 16 sulphur-containing wastes from petroleum desulphurisation (note: the petroleum content must not exceed the limit value set forth in the List of Waste Ordinance)

Note: possible stricter limit values defined for mineral oil content in other countries are to be observed.

05 07 02 wastes containing sulphur

Designation in English:

Sulphur in solid form; sulphur waste

Detailed description:

Solid sulphur from natural gas desulphurisation, for example, should be subsumed under this category. The sulphur must not have any contamination, e.g. hydrocarbons or mercury in amounts that make it hazardous waste

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Residues of roasted iron pyrites – **unlisted waste**
- Sulphur with hazardous contamination (mineral oil, etc.) – **unlisted waste** or listed according to the contaminants in list A (Amber Waste List)
- Sulphide (salts), if waste chemical substance – see **A4140**, otherwise **unlisted waste**
- Sulphuric acid and sulphurous acid – see **A4090**

108. SELENIUM SCRAP (NON-DISBERSIBLE)

Designation:
Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):
Selenium scrap

Other designations:

Waste and scrap of selenium (Se)

Physical characteristics: solid, lumpy, in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
16 01 18 non-ferrous metal
19 10 02 non-ferrous waste
19 12 03 non-ferrous metal
20 01 40 metals

Designation in English:

Selenium scrap; waste and scrap of Selenium

Detailed description:

--- Scrap selenium and selenium alloys

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

--- Dispersible selenium waste in elementary metallic form – see **B1060**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Selenium pigments (e.g. toner for black-and-white photos to heighten contrast), toxic selenium compounds – see **A4070, AD090** and **A1020**
- Selenium compounds that occur in the form of chemicals – see **A4140**
- All selenium-containing catalysts (cleaned or contaminated) – see **A2030**
- Dispersible selenium waste that does not consist only of metals but also of metal compounds such as selenium-containing dust, sludge, ash – see **A1020**
- Selenium-containing fly dust from off-gas cleaning – see **A4100**
- Waste of photocopy drums (electronic scrap): in the case of smaller devices, the drum, doctor blades and toner cartridge form a unit that is replaced when changing toner. If the photoconductive layer is made of selenium, selenium-tellurium, selenium-arsenic or cadmium sulphide, such cartridges are classified as hazardous electronic waste – see **A1180**
- Mixtures of wastes under entries B1020 + B1010 and/or B1050 and/or with other metals as well as wastes mixed together from the entry B1020 – see **A1020**

109. SELENIUM AND TELLURIUM (DISPERSIBLE)

Designation:

Green List B1060

Waste selenium and tellurium in metallic elemental form, including powder

Other designations:

Selenium and tellurium powder (metallic); powder selenium (Se) or tellurium (Te)

Physical characteristics: solid, dispersible, in metallic elemental form

EWL:

- 10 08 04 particulates and dust
- 12 01 04 non-ferrous metal dust and particles
- 12 01 15 machining sludges other than those mentioned under 12 01 14*
- 19 10 06 other fractions other than those mentioned in 19 10 05*
Note: limited to a metallic fraction with selenium-containing or tellurium-containing wastes in metallic dispersible form
- 19 12 13 non-ferrous metal
- 20 01 40 metals

Designation in English:

Waste selenium and tellurium in metallic elemental form including powder

Detailed description:

- Metallic selenium and tellurium dust

Demarcation from similar Green List wastes:

- Selenium and tellurium scrap, in non-dispersible form such as waste of tellurium-hardened lead scrap (by no means battery scrap) – see **B1020**
- Waste tellurium-containing steel, cast iron, copper – classified according to the main component of the relevant metal – see **B1010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Selenium-containing pesticides (some applications are banned) – see **A4030**
- Tellurium-containing anode sludge is the main source of industrial tellurium production – see **A1020** (in case lead compounds are present in the anode sludge) or **unlisted waste** (e.g. if the nickel content is over 0.1%)
- Selenium and tellurium-containing fly ash and dust - see **A4100** or **A1020**
- Leaching residues of cyanide leaching - see **A4050**
- Selenium pigments (e.g. toner for black-and-white photos to heighten contrast) and tellurium pigments – see **A4070** or **AD090**
- Toxic selenium compounds – see **A1020**
- Selenium compounds that occur in the form of chemicals – see **A4140**
- All selenium-containing catalysts (cleaned or contaminated) – see **A2030**
- Dispersible selenium waste consisting not only of metals but also of metal compounds such as dust, sludge, ash – see **A1020**

110. WASTE STRAW

Designation:

Green List B3070

Waste straw

Other designations:

waste of straw

Physical characteristics: solid

EWL:

02 01 03 plant-tissue waste

20 02 01 biodegradable waste

Designation in English:

Waste straw

Detailed description:

Waste straw is used as a general term for waste stems and stalks that have been threshed and then dried; in the strict sense of the term, it refers to waste grains only. Only uncontaminated leftover straw can be classified in the Green List.



Figure 225: Waste straw

Demarcation from similar Green List wastes:

No relevant similar waste exists on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):
Veterinary regulations:

Faeces, solid manure (e.g. horse manure) and liquid manure (category 2 material) that is mixed with waste bedding straw from non-agricultural holdings or from agricultural holdings provided they are not intended for agricultural use, are theoretically mentioned in the Amber List under AC260 "Liquid pig manure, faeces", but are subject to the veterinary approval requirements of EC Animal By-product Regulation No 1069/2009 and thus exempted from the EC Waste Shipment Regulation. The same is true of faeces, solid and liquid manure from farms that are recovered in agriculture and forestry, since such waste is by definition exempted from the scope of the EC Framework Directive on Waste No 98/2008 and thus exempted from the EC Waste Shipment Regulation.

Infectious wastes (faeces) are subject to the veterinary approval requirements of EC Animal By-product Regulation No 1069/2009 rather than to the EC Waste Shipment Regulation.

111. TANTALUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Tantalum scrap

Other designations:

wastes and scrap tantalum (Ta)

Physical characteristics: solid in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Tantalum scrap; waste and scrap of tantalum

Detailed description:

- Metallic tantalum waste from the manufacture of special apparatus (medical implants, instruments)
- Off-specification batches from powder metallurgy in non-dispersible form

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Metallic tantalum waste and alloys in dispersible form (e.g. tantalum powder) – see **B1031**
- Tantalum carbide waste (tool steel and cutting steel waste; refractory metals containing residues) – see **B1030**
- Tantalum-containing tin slags (with less than 0.5% tin), without hazardous characteristics – see **B1100**
- Tantalum catalysts (cleaned) – see **B1120**
- Tantalum fine wire – if applicable also see **GC020**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tantalum-bearing salts, to the extent that they accumulate as chemical waste – see **A4140**
- Tantalum catalysts (contaminated) – see **A2030**
- Tantalum-bearing tin slag with hazardous characteristics – **unlisted waste**
- Tantalum electrolytic capacitors – see **A1180** or if applicable **unlisted waste**

112. TANTALUM - TIN SLAGS

Designation:
Green List B1100

Metal-bearing wastes arising from melting, smelting, and refining of metals: Tantalum bearing tin slags with less than 0.5% tin

Other designations:

tantalum-bearing tin slags; non-ferrous metal slag (tantalum-bearing)

Physical characteristics: solid

EWL:

10 08 09 other slags (waste from other thermal non-ferrous metallurgy)

Designation in English:

Tantalum-bearing tin slags with less than 0.5 % tin

Detailed description:

Only non-hazardous tantalum-containing tin slag may be subsumed under this category. Analysis is required to determine whether it is non-hazardous.

Demarcation from similar Green List wastes:

- Tantalum catalysts, cleaned – see **B1120**
- Waste tantalum and tantalum alloys (metal powder) in metallic dispersible form – see **B1031**
- Lithium – tantalum glass scrap – see **B2040**
- Refractory metals containing residues (Ta) – see **B1030**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tantalum-containing tin slags classifiable as hazardous – **unlisted waste** or listed according to the contaminant on list A (Amber Waste List)
- Tantalum catalysts, contaminated – see **A2030**

113. TELLURIUM SCRAP (NON-DISBERSIBLE)

Designation:

Green List B1020

Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.): Tellurium scrap

Other designations:

Waste and scrap of tellurium (Te)

Physical characteristics: solid, lumpy, in metallic bulk (non-dispersible) form

EWL:

12 01 03 non-ferrous metal filings and turnings
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Tellurium scrap; waste and scrap of Tellurium

Detailed description:

--- Waste tellurium and alloy waste

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Dispersible tellurium waste in elementary metallic form – see **B1060**
- Waste tellurium-hardened lead scrap (by no means battery scrap) – see **B1020**
- Waste tellurium-containing steel, cast iron, copper – classified according to the main component of the relevant metal – see **B1010**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tellurium-containing dust, sludge and ash with hazardous characteristics – see **A1020**
- Tellurium-containing fly dust, ash – see **A4100** or **A1020**
- Mercury-zinc and cadmium-telluride in infrared detectors and electronic circuit components – **unlisted waste** or if applicable **A1180**
- Tellurium-containing anode sludge is the main source of industrial tellurium production – see **A1020** (in case lead compounds are present in the anode sludge) or **unlisted waste** (e.g. if the nickel content is over 0.1%)
- Mixtures of wastes under entries B1020 + B1010 and/or B1050 and/or with other metals as well as wastes mixed together from the entry B1020 – see **A1020**

114. CARPET WASTE

Designation:

Green List B3035

Waste textile floor coverings, carpets

Other designations:

Left-over carpet; waste of floor coverings; textile floor coverings

Physical characteristics: solid

EWL:

04 02 09 wastes from composite materials (impregnated textiles, elastomer, plastomer)

04 02 99 wastes not otherwise specified

16 01 22 components not otherwise specified

19 12 08 textiles

20 01 11 textiles

Designation in English:

Waste textile floor coverings, carpets

Detailed description:

Waste floor coverings and carpets (preferably production waste, parings) with no hazardous contamination (such as residual adhesives, residual tar, asbestos fibres, PCB, etc.).

Waste floor coverings and carpets may also not exceed the limit values pursuant to Annex IV of the EU POP Regulation for persistent organic pollutants such as PFOS or PBDE (destruction requirement or irreversible transformation).



Figure 226: Left-over carpet

Demarcation from similar Green List wastes:

- Carpet fibres or textile fibres – see B3030

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Textile floor covering waste with asbestos fibres – see A2050 or **unlisted waste**
- Textile floor covering waste with PCB-contamination in the plastic – see A3180 or **unlisted waste**
- Textile floor covering with residues of tar, adhesives, and other hazardous residues – classified according to the contaminants on list A (Amber Waste List) or **unlisted waste**
- Textile floor covering that exceeds the limit values pursuant to Annex IV of the EU POP Regulation for specific pollutants such as perfluorooctane sulfonates (PFOS, a chemical that makes flooring resistant to grease, oil and water) or 0.1% PBDE flame retardant or 0.1% HBCD – **unlisted waste**
- Used mattresses (material mixture) – see Y46 (waste collected from households) ("bulky waste")

115. TEXTILE WASTES

Designation:
Green List B3030

The following materials, provided they are not mixed with other wastes and are prepared to a specification: Textile wastes

Other designations:

Silk waste, wool waste, waste of animal hair, cotton waste, flax tow and waste, hemp tow and waste, jute and bast textile fibres, sisal hemp and other agave textile fibres, coconuts, abaca, ramie, and other vegetal textile fibres, chemical fibres, worn textile articles, rags, scrap twine, cordage, rope and cables, and other used textile products

Physical characteristics: solid

EWL:

- 04 02 09 wastes from composite materials (impregnated textiles, elastomer, plastomer)
- 04 02 15 wastes from finishing other than those mentioned in 04 02 14*
- 04 02 21 wastes from unprocessed textile fibres
- 04 02 22 wastes from processed textile fibres
- 15 01 09 textile packaging
- 19 12 08 textiles
- 20 01 11 textiles
- 20 01 10 clothes (provided they are not second-hand textiles)

Designation in English:

Textile wastes:

Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) not carded or combed, other; Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock (noils of wool or of fine animal hair, other waste of wool or of fine animal hair, waste of coarse animal hair); Cotton waste (including yarn waste and garnetted stock), yarn waste (including thread waste), garnetted stock, other; Flax tow and waste; Tow and waste (including yarn waste and garnetted stock) of true hemp (*Cannabis sativa* L.); Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie); Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus *Agave*; Tow, noils and waste (including yarn waste and garnetted stock) of coconut; Tow, noils and waste (including yarn waste and garnetted stock) of abaca (*Manila hemp* or *Musa textilis* Nee); Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included; Waste (including noils, yarn waste and garnetted stock) of man-made fibres (of synthetic fibres, of artificial fibres); Worn clothing and other worn textile articles; Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials (sorted, other)

Detailed description:

Sorted textiles in the form of second-hand goods are products, not waste.

Note: Scrap yarn from weaving mills, spinning mills, etc., is to be classified under the relevant item of the Green List according to the type of fibre.

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste, and garnetted stock):
 - neither carded nor combed
 - other
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock:
 - noils of wool or fine animal hair
 - other waste of wool or of fine animal hair
 - waste of coarse animal hair

GUIDELINES FOR THE SHIPMENT OF WASTE

- Cotton waste (including yarn waste and garnetted stock):
 - yarn waste
 - garnetted stock
 - other
 - Flax tow and waste
 - Tow and waste (including yarn waste and garnetted stock) of true hemp (*Cannabis sativa* L.)
 - Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp, and ramie)
 - Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus *Agave*
 - Tow, noil and waste (including yarn waste and garnetted stock) of coconut
 - Tow, noil and waste (including yarn waste and garnetted stock) of Abaca (*Manila hemp* or *Musa textilis* Nee)
 - Tow, noil and waste (including yarn waste and garnetted stock) of Ramie and other vegetal textile fibres, not elsewhere specified or included
 - Waste (including noil, yarn waste, and garnetted stock) of man-made fibres:
 - of synthetic fibres
 - of artificial fibres
 - Worn clothing and other worn textile articles
 - Used rags, scrap twine, cordage, rope, and cables and worn-out articles of twine, cordage, rope or cables of textile materials:
 - sorted
 - unsorted
- Note: Rags are classifiable under the Green List for recovery in case of transboundary shipment if they were not used for absorbing or wiping up hazardous waste or as packaging materials for hazardous waste.*
- Synthetic textile fibres e.g. fibres exclusively resulting from treatment of tyres without attached rubber



Figure 227: Wool waste

Figure 228: Textile waste from production



Figure 229: Old textiles

Figure 230: Textile waste (packaged) from the manufacture of interior linings of motor vehicles without banned flame retardants

Demarcation from similar Green List wastes:

- Waste textile floor coverings, carpets – see **B3035**
- Mixtures of waste classified under Basel entry B3030 (textile waste) – see **section 3h) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Contaminated cleaning rags or wiping rags with harmful organic or inorganic residues (e.g. contaminated with oil, solvents or heavy metals) – **unlisted waste** or listed according to the contaminants on list A (Amber Waste List)
- Textile waste, textile floor covering waste and carpet waste with hazardous contamination (e.g. asbestos, PCB) or with content of persistent organic pollutants such as flame retardants: PBDE or HBCD and PFOS compounds used to make products water- and stain-resistant that exceed the limit values pursuant to Annex IV of the EU POP Regulation – **unlisted waste** or listed according to the hazardous contaminants on list A (Amber Waste List)
- Textile fibres resulting from processing/recovery of end-of-life vehicles (mixture) – **unlisted waste**
- Textile fibres resulting from the processing of tyres, mixed with waste rubber – **unlisted waste**
- Old mattresses (mixture of materials) – see **Y46** (Household waste) ("bulky waste")



Figure 231: Textile waste contaminated by oil – unlisted waste
 Figure 232: Old sofas, mattresses (bulky waste) - Y46

116. THORIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Thorium scrap

Other designations:

waste and scrap of thorium (Th)

Physical characteristics: solid, in non-dispersible form

Thorium as a pure metal is a radioactive element and is subject to the relevant radiation protection provisions!

EWL:

Metal waste in the form of alloys with low thorium content below the limit values of the radiation protection provisions:

- 12 01 03 non-ferrous metal filings and turnings
- 16 01 18 non-ferrous metal
- 19 10 02 non-ferrous waste
- 19 12 03 non-ferrous metal
- 20 01 40 metals

Designation in English:

Thorium waste and scrap; waste and scrap of Thorium

Detailed description:

- Alloy waste with low quantities of thorium (e.g. jet engine waste)
- Thorium-copper-silver alloy waste (electrical contacts)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Thorium compounds that accumulate in the form of waste chemical substances – see **A4140**, otherwise **unlisted waste**
- Thorium-containing waste from electron tubes and mercury lamps – see **A2010** or **A1030**

Thorium, in the form of oxides and dicarbides, in combination with those of uranium, is used as a breeder material in high-temperature reactors. Together with beryllium targets, thorium serves as a neutron source – the relevant radiation protection requirements must be observed!

117. TITANIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Titanium scrap

Other designations:

waste and scrap of titanium

Physical characteristics: solid, metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Titanium scrap; waste and scrap of Titanium

Detailed description:

- Metallic titanium waste (wastes from propeller parts such as shafts, superconductor niobium- titanium alloys, springs in motor vehicle chassis)
- Waste implant materials in medical technology
- Waste from high-stress parts of aircraft and spacecraft that are nevertheless required to be lightweight, waste from the frames of high-quality bicycles in combination with aluminium and vanadium

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Titanium waste in metallic dispersible form – see **B1031**
- Titanium carbide – see **B1030** (refractory metals containing residues)
- Spent titanium-catalysts (cleaned) – see **B1120**
- Titanium oxide residue in the form of paints ("titanium white", non-toxic), not containing solvents or other hazardous substances – see **B4010**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Titanium compounds that arise in the form of chemical waste – see **A4140**
- Spent titanium catalysts, if contaminated – see **A2030**
- Titanium-containing galvanic sludges – see **A1050**
- Titanium oxide residue in the form of paints, dyes and pigments containing solvents or other hazardous substances – see **A4070**

118. VANADIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Vanadium scrap

Other designations:

waste and scrap of vanadium (V)

Physical characteristics: solid, metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings

16 01 18 non-ferrous metal

19 10 02 non-ferrous waste

19 12 03 non-ferrous metal

20 01 40 metals

Designation in English:

Vanadium scrap; waste and scrap of Vanadium

Detailed description:

- Waste ferrovanadium (alloy of 50% iron and 50% vanadium – special steels)
- Vanadium-containing steel scrap from shafts, crankshafts, gears in transmission construction
- Waste of vanadium-gallium (superconducting magnets)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Slags from iron and steel production (without hazardous characteristics) that are used for the manufacture of vanadium – see **B1210**
- Vanadium-containing catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Vanadium-containing catalysts (contaminated) – see **A2030**
- Vanadium-containing dust and ashes (including vanadium-containing ash from oil firing) – see **AA060**
- Vanadium-containing sewage sludge from petroleum processing – see **AC270**

NB: Vanadium dust is highly flammable. Vanadium compounds are highly toxic. Inhaling vanadium-containing dust can cause lung cancer.

119. WINE LEES

Designation:

Green List B3060

Wastes arising from the agro-food industry provided they are not infectious: Wine lees

Other designations:

wine sediments

Physical characteristics: solid

EWL:

02 07 02 waste from spirits distillation

02 07 04 materials unsuitable for consumption or processing

Designation in English:

Wine lees

Detailed description:

Wine lees are the lees that accumulate when the wine is drawn off for the first time; they consist mainly of yeast and tartaric acid salts such as potassium hydrogen tartrate (tartar) and calcium tartrate (recovery in the making of tartaric acid and as a leavening agent).

Demarcation from similar Green List wastes:

There is no relevant similar waste on the Green List.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

There is no relevant similar waste on the Amber List.

120. TUNGSTEN SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Tungsten scrap

Other designations:

Waste and scrap of tungsten (T); tungsten waste, Widia; tungsten carbide ("WC" is a registered trade name for hard metal); waste of sintered material

Physical characteristics: solid, in non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
 (15 01 04 metallic packaging)
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Tungsten scrap

Detailed description:

- Off-specification batches from powder metallurgy
- Tungsten pressing fragments, shavings, pieces
- Tungsten shavings, tungsten pieces (sheets, wires)
- Tungsten foils and wires
- Tungsten/copper shavings, pieces

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.



Figure 233: Pieces of tungsten wire

Figure 234: Fragments of tungsten

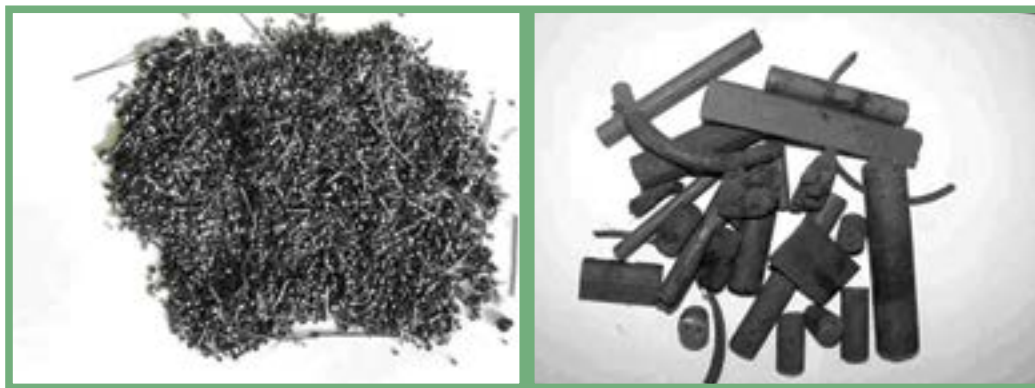


Figure 235: Tungsten shavings

Figure 236: Tungsten-containing pressing fragments

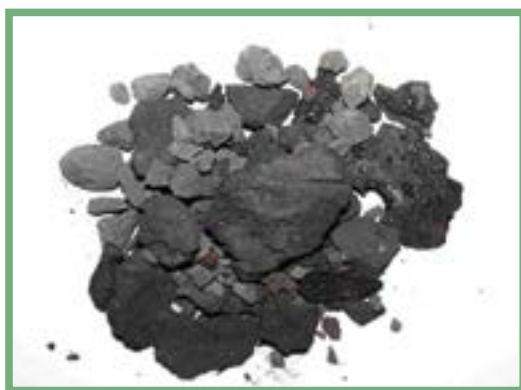


Figure 237: Tungsten-containing return material from grinding processes

Demarcation from similar Green List wastes:

- Tungsten carbide (hard metals and high-speed tool steel waste) – see **B1030** Refractory metals containing residues (high melting point metals)
- Metallic tungsten waste and alloys in dispersible form (e.g. tungsten powder and metallic filter or press cakes) – see **B1031**
- Tungsten catalysts (cleaned) – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tungstenate and tungsten compounds (other than carbides) – **unlisted waste** or if refers to residues form chemicals – see **A4140**
- Tungsten catalysts (contaminated) – see **A2030**

121. ZINC ASH (DISPERSIBLE)

Designation:
Green List B1080

Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I (Basel Convention) constituents in concentration such as to exhibit Annex III (Basel Convention) characteristics

Other designations:

Zinc alloy ash, fine zinc ash, zinc oxide waste

Physical characteristics: solid, also in dispersible form

EWL:

06 03 16 metal oxides other than those mentioned in 06 03 15*
 10 05 04 other particulates and dust
 11 05 02 zinc ash

Designation in English:

Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I (Basel Convention) constituents in concentration such as to exhibit Annex III (Basel Convention) characteristics or exhibiting hazard characteristic H4.3; zinc oxide

Detailed description:

- Zinc ash (also dispersible), to the extent that they do not exhibit any hazardous properties (e.g. heavy metals such as cadmium, lead - cf. the respective limit values to fulfill any hazardous characteristic pursuant to the List of Waste Ordinance) or that they do not exhibit hazardous characteristic H4.3 according to the Basel Convention (or class 4.3 of dangerous goods)
- Zinc oxide residues/ash from the spray galvanising process (galvanising steel wire), that mainly consist of zinc oxide, some iron and zinc and do not exhibit hazardous characteristics pursuant to the List of Waste Ordinance (e.g. due to the presence of metals and heavy metals such as As, Cd, Ni, Pb)



Figure 238: Zinc ash

Figure 239: Pressed zinc oxide

Demarcation from similar Green List wastes:

- Galvanising slab zinc top dross (> 90% Zn), galvanising slab zinc bottom dross (> 92% Zn), zinc die cast dross (> 85% Zn), hot dip galvanisers slab zinc dross (batch) (> 92% Zn), zinc skimmings (at least 40.5% metallic zinc content) – see **B1100**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Ash with elevated heavy metal content (e.g. Cd, Pb, or Ni as the case may be – cf. the required limit values for hazardous characteristics pursuant to the List of Waste Ordinance) and/or exhibiting the hazardous property H 4.3 according to the Basel Convention (or class 4.3 of dangerous goods) – see **A1080** or **unlisted waste**
- Zinc dross that does not meet the required content of metallic zinc – **unlisted waste** or zinc dross with hazardous characteristics (e.g. due to increased lead or cadmium content) – see **A1080**
- Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc. – see **A1070**



Figure 240: Zinc hydroxide or jarosite sludge (dried) – A1070

122. ZINC SKIMMINGS/SLAG

Designation:
Green List B1100

Metal-bearing wastes arising from melting, smelting, and refining of metals, zinc-containing top dross

- Galvanising slab zinc top dross (> 90% Zn)
- Galvanising slab zinc bottom dross (> 92% Zn)
- Zinc die casting dross (> 85% Zn)
- Hot dip galvanisers slab zinc dross (batch) (> 92% Zn)
- Zinc skimmings

Other designations:

Zinc dross/skimmings, zinc slag, zinc-containing residues from hot-dip galvanising, galvanising slab zinc top dross, galvanising slab zinc bottom dross, zinc die casting dross

Physical characteristics: solid

EWL:

 10 05 11 dross and skimmings other than those mentioned in 10 05 10*
 10 05 01 slags (primary and secondary smelting)

Designation in English:

Zinc-containing drosses:

- galvanizing slab zinc top dross (> 90 % Zn)
- galvanizing slab zinc bottom dross (> 92 % Zn)
- zinc die casting dross (> 85 % Zn)
- hot dip galvanizers slab zinc dross (batch) (> 92 % Zn)
- zinc skimmings

Detailed description:

Galvanising slab zinc top dross (>90% Zn)

- Zinc top dross from planetary rolling mill process, skimmed off the top of continual galvanising in regular slabs, free of ashes and powders, not burned goods, approximately 10% fragments
- Zinc die casting top dross from continual slab galvanising, free from slag, approximately 10% fragments

Galvanising slab zinc bottom dross (>92% Zn)

- Zinc bottom dross from planetary rolling mill process, skimmed off the bottom of continual galvanising, in regular slabs, free of ashes and powders, approximately 10% fragments
- Zinc die casting bottom dross from continual slab galvanising, in slab form, free from slag, approximately 10% fragments

Zinc die casting dross (>85% Zn)

- Zinc die casting dross/slag, drawn (skimmed) from the top, smooth, metallic, and as free as possible from corrosion or oxidation

Hot dip galvanisers slab zinc dross (batch) (>92% Zn)

- Galvanising dross in slabs, blocks from hot exchange galvanising (Batch Process), free from iron fragments, approximately 10% fragments

Zinc skimmings

The zinc skimmings must have a metallic zinc content of at least 40.5%.

The cadmium content must by no means exceed 0.1% (cadmium oxide is considered to be a category 1B carcinogen; limit value for for classification as carcinogen: 0.1%). The limit value of 0.1% is applicable also to any nickel oxide compounds. The content of lead compounds may not exceed 0.3% (the limit value for reproduction-toxic lead compounds). The residues may be neither flammable nor release flammable gases in hazardous quantities upon contact with water (Criterion H4.3 in accordance with the Basel Convention).



Figure 241: Zinc skimmings

Demarcation from similar Green List wastes:

- Zinc ash and residues including zinc alloy residues in a dispersible form that exhibit no hazardous characteristics – see **B1080**
- Mixtures of waste classified under OECD entry GB040 (slags from precious metals and copper processing) + under Basel entry B1100 (metal-bearing waste arising from melting, smelting, and refining of metals) restricted to:
 - hard zinc spelter, zinc-containing drosses, aluminium drosses (or skimmings), excluding salt slag, waste from refractory linings, including crucibles originating from copper smelting – see **section 2d) of Annex IIIA**

Note: Exports of this mixture are not permitted to countries to which the OECD Decision does not apply.

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Zinc drosses, skimmings, and ash that are inflammable, or release flammable gases in hazardous quantities upon contact with water, or contain high amounts of lead and cadmium compounds – see **A1080** or in the case of criterion H4.3 in accordance with the Basel Convention or higher contents of other heavy metals – **unlisted waste**
- Zinc-containing fly dust – see **A4100**
- What is termed "zinc foam", slags, dross, ashes (from wet galvanising), containing ammonium chloride (characterised by a strong smell of ammonia) – see **A1080** (in case of elevated lead or cadmium content) or **unlisted waste**
- Dross, slag with less than 40.5% metallic zinc (in single batches: below 40.5%) and/or higher heavy metal content (Cd, Ni, Pb) – see **A1080** (in case of higher content of lead and cadmium) or **unlisted waste**
- Zinc hydroxide sludge, leaching residues from zinc processing (jarosite sludge) – see **A1070**

123. ZINC SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Zinc scrap

Other designations:

Wastes and scrap of zinc (Zn), titanium zinc (alloy with small quantities of titanium and copper)

Physical characteristics: solid in metallic non-dispersible form

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 17 04 04 zinc
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Zinc scrap; waste and scrap of zinc

Detailed description:

- Sheet zinc scrap (stamping scrap, covers)
- Cast zinc parts, plates, mouldings
- Zinc alloy scrap
- Zinc anodes from zinc-air batteries (zinc-air batteries are button cell batteries; anode = zinc powder, cathode = atmospheric oxygen that oxidises into zinc hydroxide as the zinc discharges)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Hard zinc spelter and zinc residues (metallic zinc content of at least 40.5%) – see **B1100**
- Zinc ash and dust, residues in dispersible form – see **B1080**
- Zinc catalysts cleaned – see **B1120**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Leaching residues from zinc processing, dust, sludge such as jarosite, hematite – see **A1070**
- Zinc catalysts contaminated – see **A2030**
- Zinc-containing galvanic sludge – see **A1050**
- Zinc-containing filter dust – see **A4100**
- Zinc-air batteries, whole, zinc-carbon batteries and alkali-manganese batteries (zinc/manganese dioxide/caustic potash – such batteries should be classified as hazardous waste – also see electrolytes) – see **A1170**
- Zinc-ammonium chloride dross, zinc ash and slag with lead, cadmium contamination and/or hazardous characteristics – see **A1080** or **unlisted waste**

124. TIN SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Tin scrap

Other designations:

Wastes and scrap of tin; sheet tin; tinfoil;

Physical characteristics: solid, non-dispersible

EWL:

02 01 10 waste metal
 12 01 03 non-ferrous metal filings and turnings
 15 01 04 metallic packaging
 16 01 18 non-ferrous metal
 17 04 06 tin
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Tin scrap; waste and scrap of tin; tin solder

Detailed description:

- Hard pewter (table ware and siphon trap), tin pipes, block tin
- Babbitt metal with high tin content
- Skimmed metallic tin (hardened bars, less than 0.3% lead compounds) from a tin electrolyte
- Soldering tin, if it has low oxide contamination (less than 0.3% lead oxide)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

NB: Soldering scrap (in metallic form) can also be classified under the entry B1020 "Lead scrap" if the lead content is higher than the tin content. For classification in the Green List, the oxide component must be negligible, however (cf. lead – reproductive toxicity – from 0.3% lead compounds – hazardous waste); it must not be dross!



Figure 242: Tin scrap

Demarcation from similar Green List wastes:

- Tantalum-containing tin slags with less than 0.5% tin content – see **B1100**
- Mixtures of wastes under entries B1010 + B1050 – see **section 2a) of Annex IIIA**
- Mixtures of wastes under entries B1010 + B1070 – see **section 2b) of Annex IIIA**
- Mixtures of wastes under entry B1010 – see **section 3a) of Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Tin dross, slag, ash, and other residues (filter cake, dust, sludge) – **unlisted waste**
- Soldering tin with higher dispersible or oxide components (cf. limit values for reproductive toxicity: 0.3% lead compounds) – see **A1020**
- Tantalum-bearing tin slags with less than 0.5% tin, with hazardous characteristics – **unlisted waste**

125. ZIRCONIUM SCRAP (NON-DISPERSIBLE)

Designation:

Green List B1010

Metal and metal alloy wastes in metallic, non-dispersible form: Zirconium scrap

Other designations:

wastes and scrap of zirconium (Zr); zirconium scrap

Physical characteristics: solid in metallic non-dispersible form

EWL:

12 01 03 non-ferrous metal filings and turnings
 16 01 18 non-ferrous metal
 19 10 02 non-ferrous waste
 19 12 03 non-ferrous metal
 20 01 40 metals

Designation in English:

Zirconium scrap; waste and scrap of zirconium

Detailed description:

--- Zirconium scrap, e.g. from light-alloy construction (aircraft)

Non-ferrous metal scrap that exceeds its non-hazardous, non-metallic contaminant limit of 10% requires notification and authorisation for transboundary shipments on the part of the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

Demarcation from similar Green List wastes:

- Spent zirconium catalysts (cleaned) – see **B1120**
- Waste from refractory linings (zirconium oxide has a melting point of approx. 3.000 °C), including crucibles arising from the smelting of copper, without hazardous contamination – see **B1100**
- Furnace linings from metallurgical and non-metallurgical processes, proven to have no hazardous characteristics – ceramic waste – see **GF010**
- Mixtures of waste under entries B1010 + B1050 – see **section 2a) in Annex IIIA**
- Mixtures of waste under entries B1010 + B1070 – see **section 2b) in Annex IIIA**
- Mixtures of waste under entry B1010 – see **section 3a) in Annex IIIA**

Demarcation from Amber Listed wastes or unlisted wastes (notification):

- Zirconium-based polishing and grinding waste – **unlisted waste**
- Sands used in foundry operations – see **AB070**
- Blasting grit – see **AB130**
- Zirconium compounds in the form of chemical waste – see **A4140**
- Crushed cathode-ray tubes with coatings (e.g. zirconium-based phosphor) – see **A2010**
- Phosphors and pigments – see **A4070**
- Zirconium-oxide-containing furnace linings from metallurgical and non-metallurgical processes with hazardous characteristics – **unlisted waste** or listed in accordance with the contaminants on list A (Amber Waste List)
- Spent zirconium-catalysts (contaminated) – see **A2030**

Zirconium itself is used in nuclear reactors, for instance – in the case of radioactive zirconium waste, it is important to observe the radiation protection provisions.

126. EXCAVATED SOIL

Designation:
unlisted waste

Excavated soil and stones, excavated earth (contaminated or not contaminated)

Other designations:

Excavated earth; excavation soil (from contaminated locations or landfills); uncontaminated soils; dredged material; track ballast; soils and stones

Physical characteristics: solid - highly viscous

EWL:

- 01 04 09 waste sand and clays
- 01 05 04 fresh-water drilling muds and wastes
- 01 05 05* oil-containing drilling muds and wastes
- 01 05 06* drilling muds and other drilling wastes containing dangerous substances
- 01 05 07 barite-containing drilling muds and wastes other than those mentioned in 01 05 05* and 01 05 06*
- 01 05 08 chloride-containing drilling muds and wastes other than those mentioned in 01 05 05* and 01 05 06*
- 01 05 99 wastes not otherwise specified
- 17 05 03* soil and stones containing hazardous substances
- 17 05 04 soil and stones other than those mentioned in 17 05 03*
- 17 05 05* dredging spoil containing hazardous substances
- 17 05 06 dredging spoil other than that mentioned in 17 05 05*
- 17 05 07* track ballast containing hazardous substances
- 17 05 08 track ballast other than that mentioned in 17 05 07*
- 19 12 09 minerals (e.g. sand, stones)
- 19 13 01* solid wastes from soil remediation containing hazardous substances
- 19 13 02 solid wastes from soil remediation other than those mentioned in 19 13 01*
- 19 13 03* sludges from soil remediation containing hazardous substances
- 19 13 04 sludges from soil remediation other than those mentioned in 19 13 03*
- 19 13 05* sludges from groundwater remediation containing hazardous substances
- 19 13 06 sludges from groundwater remediation other than those mentioned in 19 13 05*
- 20 02 02 soil and stones

Designation in English:

Excavated soil with or without contamination; excavated soil from landfills or contaminated sites; non-contaminated soil; gravel; ballast;

Detailed description:

Both contaminated and non-contaminated soil or excavated earth (with or without construction waste residues), tunnel spoil and drilling sludge represent unlisted waste, which is therefore subject to a notification procedure. The waste may accumulate during construction activities (dredging and excavation) or during remediation of contaminated sites.

Hazardous contamination such as tar or oil stains are sometimes visible, some contaminations, such as organic solvents or naphthalene, are noticeable due to their odour.



Figure 243: Soil excavation from landfill deconstruction

Figure 244: Soils contaminated with oil

Demarcation from Amber List wastes:

- Sand used in foundry operations – see **AB070**
- Wastes from mining operations in dispersible form:
 - Natural graphite waste, slate waste, mica waste, leucite waste, nepheline and nepheline syenite waste, feldspar waste, fluorspar waste, silica waste in solid form (sand), or if these wastes are contaminated – **unlisted waste**
- Drilling sludges – **unlisted waste** or listed according to the hazardous contaminants on list A (Amber Waste List)
- Wastes containing cyanide from mining operations – **A4050**
- Inorganic fluorine compounds in the form of liquids or sludges but excluding those in List B – see **A2020**
- Mixtures of waste from construction and demolition – **unlisted waste**
- Bauxite (red mud) with a pH value of more than 11.5 or with hazardous contamination – **unlisted waste**

Demarcation from Green List wastes:

- Wastes from mining operations non-dispersible form:
 - Natural graphite waste, slate waste, mica waste, leucite waste, nepheline and nepheline syenite waste, feldspar waste, fluorspar waste, silica waste in solid form (sand), other than they are used in foundry operations – see **B2010**
- Waste mixtures in the entry B2010 – see **section 3b) of Annex IIIA**
- Calcium fluoride sludge – see **B2070**
- Bauxite (red mud) with a pH value under 11.5 and without hazardous contamination – see **B2110**

127. HOUSEHOLD WASTE

Designation:

Amber List Y46

Waste collected from households

Other designations:

Waste from households; municipal waste; commercial waste similar to household waste; mixed packaging waste from household collection; pre-sorted or mechanically (biologically) treated household waste or residual waste; "bulky waste"

Physical characteristics: solid

EWL:

- 20 03 01 mixed municipal waste
- 20 03 02 waste from markets
- 20 03 03 street-cleaning residues
- 20 03 07 bulky waste
- 20 03 99 municipal wastes not otherwise specified
- 20 01 08 biodegradable kitchen and canteen waste

In the case of prepared household and commercial waste using pre-treatment:

- 19 12 12 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11*
- 19 12 10 combustible waste (refuse-derived fuel)

Designation in English:

Wastes collected from households; household waste; municipal waste; garbage (households)

Detailed description:

Residual waste ("mixed municipal waste") represents a mixture of food waste and other biodegradable materials, plastics, textile waste, rubber, glass, paper and paperboard waste, composite packaging, metals and small amounts of hazardous wastes in variable composition, depending on the time of year and national regulations on the separate collection of certain substance streams. These mixtures of waste are collected either from private households or similar facilities (household waste) or from commercial premises (commercial waste similar to household waste).

Pre-treated residual or commercial waste as well as any waste fuels produced are also classifiable under the Amber Waste List (notification obligation).

Bulky waste includes bulky furnishings, etc. from households and similar facilities that do not fit into the approved waste bin due to their size or nature.



Figure 245: Commercial waste similar to household waste

Figure 246: Household waste



Figure 247: Household waste

Figure 248: Commercial waste similar to household waste



Figure 249: Commercial waste similar to household waste

Figure 250: Transport of bulky waste



Figure 251: Waste fuels

Figure 252: Untreated commercial waste

Demarcation from Amber List wastes:

- Waste fuels (refuse-derived fuels (RDF) or solid recovered fuel (SRF)) or solid alternative fuels are produced by processing steps such as metal deposition, grinding, various other separation processes from household waste and waste similar to commercial waste – **unlisted waste** or in some states classification as Y46 (household waste)

Demarcation from Green List wastes:

Separately collected fractions of municipal waste or industrial waste can be assigned to the Green List after sorting or when each fraction is of the required purity:

- Plastics – see **B3010**
- Mixtures from specific plastics – see **section 3d), e) and f) of Annex IIIA**
- Waste from paper, paperboard (cardboard) and paper products – see **B3020**
- Mixtures from specific paper wastes – see **section 3g) of Annex IIIA**
- Metal waste – see **B1010 or B1020 or B1050**
- Mixtures from specific metal waste – see especially **section 2a) of Annex IIIA**
- Glass waste in non-dispersible form – see **B2020**
- Ceramic waste in non-dispersible form – see **B2030**
- Mixtures from specific ceramic wastes – see **section 3c) of Annex IIIA**
- Textile waste – see **B3030**
- Mixtures from textile wastes – see **section 3h) of Annex IIIA**

128. WASTE CABLES (HAZARDOUS)

Designation:
Amber List A1190

Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB, lead, cadmium, other organic halogen compounds or other Annex I constituents to the extent, that they exhibit Annex III characteristics

Other designations:

Cable waste, plastic cable waste; old underground cables and signal cables

Physical characteristics: solid

EWL:

17 04 10* cables containing oil, coal tar and other hazardous substances

Designation in English:

Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB, lead, cadmium, other organo-halogen compounds or other Annex I (Basel Convention) constituents to an extent that they exhibit Annex III (Basel Convention) characteristics; waste underground cables; waste insulated cables

Detailed description:

- Example of the construction of underground cables: Aluminium or copper (conductor), paper saturated with oil (insulation) the conductor cable (centre) is filled with oil for cooling, lead sheath (humidity protection), plastic sheath mostly made from PVC (mechanical protection)
- Example of the construction of telephone and signal cables: Copper (conductor) with PE or PVC (insulation), grease filling (petrolatum) potentially a lead sheath, plastic sheath
- Waste cable with PCB contamination coated with PVC



Figure 253: Underground cable (oil insulation)

Figure 254: Cable with grease filling

Demarcation from Green List wastes:

- Waste metal cables from the production of new cables, free of PCB and other hazardous substances – see B1115

