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Federal Waste Management Plan 2006

Update of Chapter 5.3. – Version 2009
Notes on applying Annexes III to V of the EC Waste Shipment Regulation No. 1013/2006

5.3. Notes on applying Annexes III to V of the EC Waste Shipment Regulation No. 1013/2006

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5.3. Notes on applying Annexes III to V of the EC Waste Shipment Regulation No. 1013/2006

Legal Framework

5.3.1 Introduction

The EC Waste Shipment Regulation implementing the OECD Council Decision C (2001) 107/FINAL, as amended, creates a two-list system ("Green and Amber Lists") for recoverable waste.

Wastes attributable to the Green List are enumerated in Annexes III, IIIA and IIIB and wastes attributable to the Amber List are enumerated in Annexes IV and IVA of the EC Waste Shipment Regulation.

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

Annexes II (group of waste requiring special supervision) and VIII (list A - hazardous waste as defined in Art. 1.1.a of the Basel Convention) of the Basel Convention are the basis of Annex IV of the EC Waste Shipment Regulation, but certain entries have been included from the previous list system of the OECD Council Decision C (92) 39 FINAL for waste not yet included in the lists set forth by the Basel Convention.

These entries can be recognised by their specific code (e.g. GC 010, AA010, RB 020) and were attributed to the respective applicable Annex (Annex III - Green List and Annex IV - Amber List).

Annexes VIII and IX of the Basel Convention are subject to an ongoing review process in the framework of the Conference of the Parties to the Basel Convention with any amendments made there also being adopted by the OECD and the EU (no automatic acceptance however).

5.3.1.1 Summary List of the Basel Convention countries

The current summary list (ratification status) is available on the website: **www.basel.int**

Total number of parties to the Basel Convention: 172 (including the European Union) (Last updated: Autumn 2009)

Africa

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

Asia and Oceania

Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, China, Cambodia, Cook Islands, Democratic Republic of Korea, India, Indonesia, Iran (Islamic Republic), Japan, Jordanian, Kazakhstan, Kiribati, Korea, Kuwait, Kyrgyzstan, Lebanon, Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Nauru, Nepal, Oman, Pakistan, Papua New Guinea, Philippines, Qatar, , Samoa, Saudi Arabia, Singapore, Sri Lanka, Syrian Arabic Republic, Thailand, Turkmenistan, United Arabic Emirates, Uzbekistan, Vietnam, Yemen

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

Central and Eastern Europe
Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Former Yugoslav Republic of Macedonia, Georgia, Hungary, Latvia, Lithuania, Montenegro, Poland, Republic Moldavia, Rumania, Russian Federation, Serbia, Slovakia, Slovenia, Ukraine

Latin America and the Caribbean
Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivian, Brazil, Chile, Columbia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Santa Lucia, Saint Vincent and Grenadines, Trinidad and Tobago, Uruguay, Venezuela

Political and/or economic organisations:
European Community

Signatories to the Basel Convention (no ratification):
Afghanistan, USA, Haiti.

5.3.1.2 Summary list of the OECD countries

The current summary list is available on the website: **www.oecd.org**.
Total number of OECD countries: 30 (Last updated: September 2009)
Estonia, Slovenia, Chile and Israel will become members to the OECD soon. Also Russia and Bulgaria are in the process of applying for an OECD-membership (status: Autumn 2009)

OECD countries: Australia, Belgium, Denmark, Germany, Finland, France, Greece, Ireland, Iceland, Italy, Canada, Korea, Japan, Luxemburg, Mexico, New Zealand, Netherlands, Norway, Austria, Poland, Portugal, Sweden, Switzerland, Slovak Republic, Spain, Czech Republic,Turkey, Hungary, United Kingdom, United States

Remark: According to the EC Regulation No. 740/2008 Liechtenstein shall be considered as a country for which the OECD Council Decision applies.

5.3.1.3 Summary list of the EU-Member States

EU-Member States: Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom

The transitional provisions referring to the application of the EC Waste Shipment Regulation (notification obligation for Green Listed waste) for the following Member States must be taken into account: Bulgaria, Romania, Latvia, Slovak Republic, Poland.
Furthermore by way of derogation from Article 12 of the EC-Waste Shipment Regulation, some of the new EU Member States may object to shipments requiring notification, which are destined for recovery operations on the basis of Art.11 (“objections to shipments of waste destined for disposal”).

5.3.1.4 Bilateral Agreement between the Government of the Federal Republic of Austria and the Government of the Federal Republic of Germany concerning the transboundary movement of wastes

On July, 1st 2009, the bilateral agreement of the Government of the Federal Republic of Austria and the Government of the Federal Republic of Germany , Federal Law Gaz. III 2009/72, referring to the transboundary shipment of wastes in accordance with Article 30 of EC Waste Shipment Regulation No. 1013/2006 of the European Parliament and the Council of June 14th 2006, entered into force (see: **www.umweltnet.at – Abfall (=waste) – Abfallverbringung (=waste shipment)**).
This bilateral agreement facilitates the notification procedure for shipments of certain wastes requiring notification in the border area of Austria or respectively Germany. (taking into account the specific geographical location of "Kleinwalsertal")

5.3.2 The EC Waste Shipment Regulation

5.3.2.1 Exemptions from the scope of application

The EC Waste Shipment Regulation does not apply for:

- the **offloading to shore of waste**, including waste water and residues, generated by the normal operation of ships and offshore platforms (provided that such waste is subject to the requirements of the international agreements e.g. International Convention for the Prevention of Pollution from Ships - MARPOL)

- **waste generated on board of vehicles, trains, aeroplanes and ships**, until such waste is offloaded in order to be recovered or disposed of;

- **shipments of radioactive waste** as defined in Article 2 of Council Directive 92/3/ Euratom of 3 February 1992 (as amended) on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community

- shipments which are subject to the **approval requirements of Regulation (EC) No 1774/2002;**
  Health rules concerning animal by-products not intended for human consumption; animal by-products of **categories 1 and 2** as well as their mixtures are not subject to the provisions of the EU Waste Shipment Regulation in the event of transboundary shipment.
  Since approval requirements also apply to **processed animal proteins belonging to categories 1 to 3** according to the above-referenced veterinary regulation, provided these originate from animal body processing plants (rendering plants), the transboundary shipment of processed animal proteins (animal meal) of category 3 originating from such plants for recovery or disposal no longer falls under the waste-related provisions of EC Waste Shipment Regulation No. 1013/2006.

- **Waste resulting from prospecting and extraction, treatment and storage of mineral resources** as well as from the operation of quarries (provided other Community laws with similar provisions already exist for this shipment)

- **Waste waters, with the exception of waste in liquid form** (provided other Community laws with similar provisions already exist for this shipment)

- **Decomissioned explosives** (provided other Community laws with similar provisions already exist for this shipment)

- **Shipments of waste from the Antarctic** into the Community in compliance with the Protocol on Environmental Protection to the Antarctic Treaty (1991)

- **Imports into the Community of waste generated by armed forces or relief organisations in situations of crisis, peacemaking or peacekeeping operations** where such waste is shipped, by the armed forces or relief organisations concerned or on their behalf, directly or indirectly to the country of destination.
  In these cases, every competent authority for transit and the competent authority of the state of destination in the Community must be informed on the shipment and its destination in advance.
  In this context for the harmonization of such reports the form developed by the EU Commission should be used (**EU-Correspondents' Guidelines No. 2 concerning Art. 1 Para 3 (g) of the EC-Waste Shipment Regulation -** see: **ec.europa.eu/environment/waste/shipments/index.htm**)

5.3.2.2 The EC Shipment Regulation, its amendments and Correspondents Guidelines

Important Websites:

www.edm.gv.at - Informationen zu Anwendungen/Downloads - Verbringung (= Shipment) → notification and movement forms

www.umweltnet.at – Abfall (=waste) – Abfallverbringung (=waste shipment) → Folder on the transboundary shipment of wastes, model contracts, sub-contracts and text patterns for financial guarantees etc.

European Legislation referring to waste shipment – EU-Correspondents Guidelines:
ec.europa.eu/environment/waste/shipments/index.htm
Shipment of wastes listed on Annex III und IIIA (Green List) to Non-OECD countries (partially notification obligation or import ban) – "Staatenliste"des Umweltbundesamts Berlin (= "List of Countries" of the Federal Environment Agency Berlin):
www.umweltdaten.de/abfallwirtschaft/gav/Staatenliste.pdf

Referring to the notification procedure the legal requirements in the Federal Waste Management Act (AWG 2002 as amended) and the EC-Waste Shipment Regulation 1013/2006, amended by the following acts shall apply:

- Commission Regulation (EC) No.1379/2007 of November 26th, 2007 amending Annexes IA (notification form), IB (movement form), VII (form pursuant to Art 18) und VIII

- Corrigendum EU L318/15 of Regulation (EC) No 1013/2006 per November 28th, 2008 (inter alia correction of mistakes referring to „state of destination" and „state of dispatch")

- EC Regulation No. 669/2008 of the Commission on completing Annex IC of the EC-Regulation No 1013/2006 (specific instructions for completing the notification and movement documents)

- Commission Regulation (EC) No. 308/2009 amending for the purposes of adaptation to scientific and technical progress, Annexes IIIA and VI to Regulation (EC) No. 1013/2006

- EC-Regulation No. 1418/2007 of the Commission concerning the export of certain waste for recovery listed in Annex III or IIIA to Regulation (EC) No 1013/2006 to specific non-OECD countries, as amended by EC-Regulations No 740/2008 and No. 967/2009

Download the relevant Annexes IA, IB und VII from: **www.edm.gv.at**
A consolidated version of the EC Waste Shipment Regulation is available on the internet site of EURLEX (**eur-lex.europa.eu**).

The Annexes to the EC-Waste Shipment Regulation (WSR):

- Annex IA : notification document
- Annex IB : movement document
- Annex IC : specific instructions for filling in the notification and movement document
- Annex II: Information and documentation related to notification
- Annex III : Green listed wastes
- Annex IIIA: mixtures of 2 or more wastes listed in Annex III and not classified under one single entry („Mixtures of Green Listed Wastes“)
- Annex IIIB: additional Green listed wastes at EU level, but notification in case of shipments to non-OECD countries
- Annex IV : Amber listed Wastes
- Annex IVA: wastes listed in Annex III but subject to the notification procedure at EU level
- Annex V: Waste subject to the export prohibition (export ban for hazardous waste to non-OECD countries)
- Annex VI: Form for pre-consented facilities (Art. 14 WSR)
- Annex VII: Information accompanying shipments of wastes referred to in Article 3 Para 2 and 4 (Green Listed wastes and wastes destined for laboratory analyses)
- Annex VIII: Guidelines for environmentally sound management (ESM)
- Annex IX: Additional questionnaire for reports by Member States pursuant to Article 51 Para 2

5.3.2.3 Correspondents Guidelines referring to the EC-Waste Shipment Regulation No. 1013/2006

These Correspondents' Guidelines represent the common understanding of all Member States on how Regulation (EC) No. 1013/2006 on shipments of waste (EC-Waste Shipment Regulation – WSR) should be interpreted. The guidelines were agreed by the correspondents at meetings organised pursuant to Article 57 of Regulation (EC) No. 1013/2006.

They are not legally binding. The binding interpretation of Community law is the exclusive competence of the European Court of Justice. The guidelines will be revised in some years, if necessary.

- **Correspondents' Guidelines No. 1** on shipments of waste electrical and electronic equipment for the purpose of re-use and relevant requirements (explanations see under item A of this Chapter)

- **Correspondents' Guidelines No. 2** concerning information on imports into the Community of waste generated by armed forces or relief organisations according to Article 1 Para 3 (g) of Regulation No. 1013/2006 on shipments of waste

- **Correspondents' Guidelines No. 3** on a certificate for recovery or disposal in case of shipments destined for preliminary recovery or disposal operations (e.g. pre-conditioning, pre-treatment or intermediate storage) according to Article 15(e)

- **Correspondents' Guidelines No. 4** on classification of waste electrical and electronic equipment and fly ash from coal-fired power plants

- **Correspondents' Guidelines No. 5** on classification of wood waste under B3050 and AC170

- **Correspondents' Guidelines No. 6** on classification of slag from processing of copper alloys under entry GB040 and B1100

- **Correspondents' Guidelines No. 7** on classification of glass wastes from cathode ray tubes under A2010 or B2020

- **Correspondents' Guidelines No. 8** on classification of toner and ink cartridges (national explanations referring to the classification in case of refilling/upgrading – explanations see under item C of this Chapter)

A) Explanations referring to the Correspondents´ Guidelines No. 1: used electric and electronic equipment (EEE) – waste versus product

Product

Where the holder of the material claims that he intends to ship or is shipping used EEE (electric and electronic equipment) and not WEEE (waste electric and electronic equipment), the following information should be provided during transport to back up this claim to an authority on its request:

a) **a copy of the invoice and contract** relating to the sale and/or **transfer of ownership** of the EEE which states that the equipment is for direct re-use and fully functional (**see proof of functional capability **)**

b) **evidence of evaluation/testing** in the form of copy of the records (**certificate of testing – proof of functional capability **) on every item** within the consignment and a protocol containing all record information;

c) **a declaration made by the holder,** who arranges the transport of the EEE that none of the material or equipment within the consignment is waste as defined by the EC Waste Framework Directive or respectively the Federal Waste Management Act 2002 as amended;

d) **sufficient packaging*** to protect it from damage during transportation, loading and unloading.

Prior to any transboundary shipment of used EEE the holder should be in a position to provide in-formation to any relevant state authorities (e. g. customs, police or environmental agencies) that proves that the above criteria for electronic and electric equipment (EEE) are met.

In any case a certificate of testing (proof of functional capability) must be provided; declarations made by the holder normally are not sufficient (exemption: shipment of single used equipment acquired for personal re-use)

**** Proof of functional capability**

The proof of functional capability (record) shall be fixed securely but not permanently on either the EEE itself (if not packed separately) or on the packaging so it can be read without unpacking the equipment. The testing protocol shall accompany each shipment. The proof should be based on the standard: ÖVE/ÖNORM E8701 Inspection after repair and modification and repeat tests of electrical appliances or a comparable standard.

The proof of functional capability (record) should contain the following information:

1. Name of item (name of the equipment according to Annex IB and number of category according to Annex IA of the WEEE Directive);
2. Identification Number of the item (or type number. or, if no serial number is available, a self-issued sequential identification number);
3. Year of production (if available);
4. Name and address of the company responsible for evidence of functionality (name of the authorized and qualified expert performing the functional capability test)
5. Result of tests (e. g. naming defective parts and defects or indication of full functionality according to the generally prevailing objective opinion or certification that the defect can be repaired by minor repair),
6. Kind of tests performed (date and content of the functional capability test), maybe also name and address of the buyer

The person performing the functional capability test must have an appropriate training or verifiable equivalent knowledge

EEE would not normally be considered waste,

a) where the above mentioned conditions (a to d) are met and if it is fully functioning and is not destined for any of the operations listed in Annex II of the WFD (recovery or disposal operations) and is directly reused for the purpose for which it was originally intended or presented for sale or exported for the purpose of being put back to direct reuse or sold to end consumers for such reuse, or

b) where the EEE is sent back as defective batches for repair to the producer or repair centres (e. g. under warranty or repair not covered under warranty) with the intention of re-use, if the above mentioned conditions under c (non-waste declaration made by the holder) and d (sufficient packaging) are met.

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* in specific cases e.g. transport of white goods, packaging is not necessarily required, an appropriate cargo securing (tie-down) will be sufficient; therefore item d) may be interpreted in a way that sufficient measures shall be taken in order to protect the electric or electronic equipment during transportation, loading and unloading.

Minor Repair

Shipment of electric and electronic equipment as product is admissible, if the appliances can be made operating be means of "minor repair".

The term "minor repair" is to be interpreted in a stringent way, meaning **"repair of a non-essential defect with regard to the functionality of the appliance, not impairing the security of the device, by means of simple tools in short time "** such as installing a new button. By no means the change or repair of components, which are essential for functioning of the appliance such as the exchange of cathode ray tubes is considered a minor repair.

If used appliances, the major (mass-related) component of which are batteries or rechargeable batteries require a change of these batteries/rechargeable batteries, the batteries or rechargeable batteries have to be removed already prior to the transboundary shipment and the fact that the appliances can be made operational merely by insertion of new batteries must be explained in the certificate of testing – "proof of functional capability". **Rechargeable batteries showing a capacity below 40% of the nominal capacity and used equipment containing such rechargeable batteries are to be classified as hazardous waste.**

Indicators that EEE would normally be considered waste are the following:

a) the product is not complete - essential parts are missing (except power cords which are not associated with the appliance)

b) it shows physical damage that impairs its functionality or safety, as defined in relevant standards;

c) the packaging* for protecting it from damage during transport and loading and unloading operations is insufficient;

d) the appearance is generally worn or damaged, thus remarkably reducing the marketability of the item(s);

e) the item has among its constituent part(s) anything that is required to be discarded or is prohibited under community or national legislation (e.g. asbestos, CFCs, PCB)

f) the EEE is destined for disposal or recycling (e.g. landfilling, scrapping) instead of re-use;

g) there is no regular market for the EEE (e.g. very old appliances, very slow computers, whose processing capacity is below the normally used operating systems (e.g. performance below "Pentium 4 ® processor" [status: 2009], old and cheap appliances)

h) it is old or out-dated EEE destined for cannibalization (to gain spare parts).

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* in specific cases also non-packed electric or electronic equipment (in most cases transports of single items) may be non-wastes, if by other means a safe transportation is guaranteed in order to prevent damages

** within the EU there recovery/recycling is mandatory

Failure to meet these criteria would generally indicate to the relevant authorities that the material is WEEE and therefore either **waste or even hazardous waste.** The shipment might either require a **notification** or in case of specific WEEE, listed on the Green List of wastes (cf. explanations referring to the entries GC010 and GC020) documents pursuant to Art. 18 of the EC Waste Shipment Regulation No. 1013/2006 have to accompany each shipment (Annex VII form and existence of a contract).

Electric and electronic equipment resulting from bulky waste collection systems, which has not been subject to a proof of functional capability (presentation of a certificate of testing) has to be considered a priori waste or even hazardous waste, depending on the type of equipment.

When Green listed EEE is shipped within the EU, the transitional requirements (notification obligation) of specific EU-Member States have to be respected.

In case of shipments of **non-hazardous WEEE** (wastes of the Green List) to **non-OECD countries**, the specified control regime of the country of destination must be obeyed (cf relevant Commission Regulations or “Staatenliste” (“List of Countries” of the Federal Environment Agency Berlin): **www.umweltdaten.de/abfallwirtschaft/gav/Staatenliste.pdf**

The shipment of hazardous WEEE to non-OECD countries is prohibited.

B) National Guidelines on the differentiation of used motor vehicles, end-of-life vehicles and heavily damaged vehicles as well as used spare parts - waste versus product

Product
Where the holder of the material claims that he intends to ship or is shipping used vehicles or spare parts, the following should be provided during transport to back up this claim to an authority on its request:

a) **a copy of the invoice and contract** relating to the sale and/or transfer of ownership of the vehicles or spare parts which states that the equipment is for **direct re-use and fully functional;**

b) a **declaration made by the holder** who arranges the transport of the used vehicles or spare parts that none of the material within the consignment is waste as defined by the EC Waste Framework Directive or the Austrian Waste Management Act 2002 as amended;

c) in case of shipment of spare parts from vehicles **sufficient packaging or appropriate storage** is required in order to protect them from damage during transportation, loading and unloading;

d) In case of **heavily damaged vehicles or end-of life vehicles** a product declaration can be accepted only, if **a proof of functional capability** or **repairworthiness** is provided (= confirmation, issued by an authorized garage or a qualified technical expert, that the used vehicles are suitable for **direct re-use** or can be rendered reusable by **minor repair).**

Exemption: transboundary shipment of a single end-of-life vehicle aquired for personal re-use

Waste characteristics of end-of-life (ELVs) or heavily damaged motor vehicles

Used vehicles would normally be considered waste if:

a) the owner or the holder of the motor vehicle intends to discard or already has discarded the vehicle (assessment of intention to discard – "subjective waste definition")
This intention to discard has to be assumed in any case according to the Austrian Waste Management Act 2002 as amended (the EC-Framework Directive) and the EC-Waste Shipment Regulation No. 1013/2006, if at least one of the following criteria applies:

- The vehicle is destined for **dismantling** for reuse of spare parts or for **shredding/scrapping**
- The vehicles are **cut into pieces** (e.g. 2 halves) or **welded up** or closed by an insulating foam (only by means of breaking open the vehicle can be made roadworthy; sometimes the ELVs are also used as "container" for spare parts and/or waste)
- The vehicles show **signs of dismantling** (e.g. seats are missing) or essential parts are missing, posing great safety risks (e.g. doors are not attached to the vehicle)
- The vehicle is **not repairworthy in Austria or the European Union**

In any case the repairworthiness cannot be assumed, if the repair costs (costs in Austria or respectively in other EU-Member States) exceed the present value of the vehicle .

Criteria for the assessment of the repairworthiness

- Present value (cf. Eurotax lists)
- Condition of the vehicle (extent of damage, year of construction, mileage)
- Repair costs (basis of calculation are costs within the EU)
- Actual sales price of the vehicle as indicator (remark: the actual sales price need not be identical with the price indicated in the documents)

- The vehicle was **handed over to an ELV-collector, disposer or recycler**

b) the treatment of the vehicle as waste is required by the public interest (assessment of environmental hazards – "objective waste definition")
The public interest (Federal Waste Management Act 2002 as amended) has to be assumed in any case, if an environmental hazard may be caused at least for one of the following reasons:

- Discharge of **fuel or fuel-vapour** (danger of fire and explosion)
- **Leakage** within the liquid gas system (danger of fire and explosion)
- **Discharge of operating liquids** (hazard to impure water by fuel, brake fluid, anti-freezer, battery-acid, cooling liquid)
- Significant **impairment of nature** or landscape

Further indicators for classifying the used vehicle as waste:

- The vehicle has **no registration** or it has been de-registered;
- The vehicle **has not had its required National technical roadworthiness test** for more than 2 years from the date when this was last required;
- The vehicle has **no identification number** (= VIN/ vehicle identification number) or the owner of the vehicle is unknown;

Vintage (veteran) cars, "old-timers"
Basically vintage (veteran) cars are not be classified as waste. With regard to the classification of vehicles as historic vehicles it shall be referred to the provisions of the Motor Vehicles Act (KFG) 1967 (§ 2 et seq) as amended.

Section 2 of the Motor Vehicles Act 1967, as amended by Fed. Law Gaz. I, 80/2002 defines historic vehicles are those, worth to be maintained and not destined for permanent use, on the condition that they a) were constructed in 1955 or earlier, or b) are more than 25 years old and registered in the approved list of historic motor vehicles issued by the Federal Minister for Transport, Innovation and Technology
(see: **www.bmvit.gv.at/verkehr/strasse/fahrzeugtechnik/historisch/index.html**).

Classification as waste according to Annex III of the EC-Waste Shipment Regulation No. 1013/2006 (Green List)

The waste vehicles can be classified under the Green list entry **B1250** (Waste end-of-life motor vehicles, containing neither liquids nor other hazardous components) according to Annex III of

the WSR No. 1013/2006, if the requirements of removal of hazardous liquids and components specified in the technical part (explanations referring to entry B1250) have been fulfilled.

Shipments of Green listed wastes (**EOL-vehicles drained of liquids and hazardous components**) destined for recovery in countries having implemented the OECD Council Decision C(2001)107 FINAL without transitional provisions are **not subject to a notification and permitting procedure** (notification however is required in case of shipments to the following EU Member States for a transitional period: Poland, Slovak Republic, Bulgaria, Romania and Latvia).

In case of shipments of Green listed wastes to non-OECD countries, the specified control regime of the country of destination must be respected (cf. relevant Commission Regulation No. 1814/2007 and its amendments No. 740/2008 and No. 967/2009 or "Staatenliste" des Umweltbundesamtes Berlin (= "List of Countries" of the Federal Environment Agency Berlin) **www.umweltdaten.de/abfallwirtschaft/gav/Staatenliste.pdf.**

Classification as unlisted waste according to the WSR (notification and permitting procedure)

End-of-life or heavily damaged vehicles that have not been decontaminated are classified as hazardous waste if they fulfil the above mentioned criteria on waste characteristics. For the transboundary shipment of these vehicles to other EU-Member-States and OECD-Member Countries having implemented the OECD-Council Decision C(2001)107 FINAL a notification and permitting procedure are obligatory in any case (unlisted waste – control procedure of the Amber List)

The export of non-depolluted end-of-life vehicles or heavily damaged vehicles, which fulfil the above mentioned criteria on waste characteristics and which are destined for **non-OECD-countries** or OECD-Member Countries, which have not implemented the OECD-Council Decision is prohibited (**ban of export** of hazardous wastes to non-OECD countries).

Intermediate storage (e.g. after stopover of illegal shipments)
In case of a necessary intermediate storage of the end-of-life or damaged vehicles specific precautionary measures (e.g. impermeable surface; collecting pans) have to be taken in order to protect the environment against loss of water pollutant substances (e.g. motor oil).

Classification of used spare parts as waste

In case of shipment of spare parts gained from vehicles it has to be checked in the context of the implementation of the Ordinance on End-of-Life Vehicles whether the shipment is carried out by persons or enterprises registered in the ERAS-system ("e-Altfahrzeuge" – e-ELVs). The fact that a person or enterprise is not registered might be an indicator that the used spare parts have not been dismounted according to the state of the art and therefore might not be fully functional (→waste).

Indicators for waste characteristics of spare parts and parts of used vehicles

a) the spare parts show **oil leakage**
b) the spare parts are **corroded** and show **physical damage**, impairing its functionality or safety, as defined in relevant standards
c) there is **no catalogue listing** all spare parts of the shipment load
d) the **packaging or appropriate storage** for protecting the spare parts from damage during transport and loading and unloading operations is **insufficient**
e) there is evidence that the spare parts or vehicle parts are not destined for re-use
f) the spare parts or parts of vehicles are destined for **recovery** or **disposal** (e.g. scrapping, landfilling etc.) and not for direct re-use

In case of reasonable doubt about the waste/non-waste characteristics of EOL-vehicles/heavily damaged vehicles the district administrative authority shall establish this in the form of an administrative ruling upon application pursuant to § 6 of the Austrian Waste Management Act 2002 (as amended).

C) National explanations referring to the EU Corresponents Guidelines No. 8 on toner and ink cartridges destined for recovery, especially focussing on re-filling and upgrading

In principle it can be differentiated between cartridges with and without hazardous toners or inks. If used toner and ink cartridges with and without hazardous toners and inks are in a mixture or if it is not clear whether really all of these used toner and ink cartridges are non-hazardous wastes, such mixtures have to be handed over with a consignment note. In case of transboundary shipment a notification and permit is required (Amber List – A1180).

For the correct classification in particular the **safety data sheet or product information** of the toner or ink shall be taken into consideration. Regarding 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 as not all hazard criteria have been fully harmonized yet. Furthermore there may be different interpretations in countries, whether re-filling and upgrading (= conversion to other models) of empty toner or ink cartridges not containing hazardous residues fall within or outside the scope of the waste management regime (classification as non-waste - see **national interpretation on re-use under item b**).

Under the provisions of Article 28 of the EC-Waste Shipment Regulation in any case of dis-agreement on classification issues by the competent authorities involved, the more stringent procedure shall prevail.

a) Waste Shipment destined for recovery (material recycling)

Empty **toner and ink cartridges without hazardous ink and toner residues** (according to present knowledge this is the situation for the vast majority of toners on the market) and drum-driven cartridges with unproblematic organic photo-conductive (OPC) drums and drums with a scratch-resistant amorphous silicon layer or zinc oxide coating may be classified under the EWL-code 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15* also in cases, where these have been removed from electronic equipment still in use and can be subsumed under the entry **GC 020** of Annex III (Green List) of the Waste Shipment Regulation.

Toner and ink cartridges containing residues of hazardous toners and inks (e.g. those classified as toxic, carcinogenic, mutagenic or teratogenic) or drum-driven cartridges containing hazardous substances such as cadmium sulfide or selenium-arsenic compounds have to be classified as hazardous waste under the EWL-code 16 02 15* hazardous components removed from discarded equipment also in cases, where these have been removed from electronic equipment still in use and assigned to the entry **A1180** of Annex IV (Amber List) of the EC Waste Shipment Regulation No 1013/2006. The transboundary shipment of these wastes is subject to a notification and permitting procedure in any case. Exports to non-OECD-countries are prohibited.

b) Shipments destined for re-use (refilling, upgrading, conversion to other models)
Pre-requisite for the shipment of used toner and ink cartridges for the purpose of refilling or upgrading is a sorting procedure. The sorting operation need not refer to specific brands or models, but is required in order to exclude such toner and ink cartridges which are not suitable for refilling or upgrading and which have to be classified and disposed of as waste.

In addition toner and inkjet cartridges with residues of hazardous toners or inks have to be separated, even if they are destined for refilling/upgrading/conversion to other models, as a mixture of ink and toner cartridges with and without hazardous toners and inks always requires a notification in the case of transboundary shipment.

Product
In the case of shipment of sorted empty toner or ink cartridges **not containing hazardous ink or toner residues**, which are destined for reuse in terms of re-filling, upgrading or conversion to other models there is no intention to discard these cartridges and their classification as waste is not required in the public interest. Therefore such shipments are shipments of **products (non-waste)** and outside the scope of the Waste Shipment Regulation.

The claim that it is a shipment of products (non-waste) shall be backed up by carrying along a contract for refilling / upgrading / conversion to other models and a confirmation of the holder, that the toner or ink cartridges do not contain hazardous toners and inks.

It should be noted that some states require in addition to the sorting operation prior to the transboundary shipment also a cleaning of the cartridges as a condition for classification as product (non-waste). Therefore in any case the current status of classification (maybe waste) in the importing country shall be clarified prior to the transboundary shipment.

Waste

Toner and ink cartridges, containing residues of hazardous toner and inks are to be classified as waste in the public interest due to their hazardous components.
Shipments of toner and ink cartridges, containing residues of hazardous toners and inks for the purpose of refilling, upgrading or conversion to other models, are subject to a notification procedure pursuant to the EC Waste Shipment No. 1013/2006 (entry A1180 Amber List).

5.3.3 The notification procedure

The written notification has to be effected by means of the notification document set out in Annex IA and the movement document set out in Annex IB of the EC Waste Shipment Regulation (details: **www.umweltnet.at** – Abfall (waste)– Abfallverbringung (waste shipment)→ **information folder on shipment of waste in accordance with the EC Waste Shipment Regulation).**

Regulation No. 669/2008 of the Commission dated 15 July 2008 completing Annex IC of the Waste Shipment Regulation No. 1013/2006 lays down specific instructions for filling in the notification and movement form (**www.edm.gv.at**).

Documents to be carried along during shipment
In any case of shipment of wastes requiring notification, the **movement document as well as copies of the notification document** and the written consents of the authorities concerned shall be carried along; all consents of the competent authorities are granted in writing, transit countries within the EU, however, may use the option of tacit consent.

It should be noted that specific EU Member States require the shipment to be accompanied by a certified movement document (e.g. Slovak Republic).

5.3.3.1 Waste destined for DISPOSAL

1. 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

2. It is permissible to import waste into the EU for disposal only from countries which:
- . are signatories of the Basel Convention or
- . have corresponding agreements with them or
- . are in situations of crisis or war, in the case of peacemaking or peacekeeping measures (exemption from notification obligation – but reporting requirement).

The transboundary shipment of waste destined for disposal into/between EU Member States and the export of waste to EFTA countries is subject to the **written notification and consent** procedure (exception to the notification requirement: only in situations of crises or war during peacemaking or peacekeeping measures in the above-mentioned cases).

5.3.3.2 Waste destined for RECOVERY

A NOTIFICATION OBLIGATION is required for the transboundary shipment of the following wastes:

1. Annexes IV and IVA (AMBER LIST) (exception to the notification requirement: in case of imports in situations of crises or war during peacemaking or peacekeeping measures in the above-mentioned cases)

The following wastes will be subject to the procedure of prior written notification and consent (Amber List – Annex IV of the EC-Waste Shipment Regulation)

Wastes listed in Annexes II and VIII to the Basel Convention (=Part I of Annex IV of the EC-Waste Shipment Regulation) and additionally listed wastes of the OECD Council Decision (= Part II of Annex IV of the EC-Waste Shipment Regulation).

Annex II of the Basel Convention contains the following entries:
Y46 Waste collected from households unless appropriately classified under a single entry in Annex III and Y47 Residues arising from the incineration of household wastes

For the purposes of the EC- Waste Shipment Regulation (WSR) the following shall apply:

a) Any reference to list B in Annex VIII to the Basel Convention shall be understood as a reference to Annex III to the WSR.

b) In Basel entry A1010, the term "excluding such wastes specifically listed on List B (Annex IX)" is a reference both to Basel entry B1020 and the note on B1020 in Annex III to the WSR, Part I(b).

c) Basel entries A1180 and A2060 do not apply and OECD entries GC 010, GC 020 and GG 040 in Annex III, Part II apply instead when appropriate (see also Correspondents Guidelines No. 4 for the classification of waste electronic and electric equipment with hazardous characteristics and fly ash from coal power stations with hazardous characteristics).

d) Basel entry A4050 includes spent potlinings from aluminium smelting because they contain Y33 inorganic cyanides. If the cyanides have been destroyed, spent potlinings are assigned to Part II entry AB 120 because they contain Y32, inorganic fluorine compounds excluding calcium fluoride.

It is permissible to import Amber List wastes into the EU destined for recovery only from countries:

- to which the OECD Council Decision applies or
- which are signatories of the Basel Convention or
- which have corresponding agreements with them
- which are in situations of crisis or war, in the case of peacemaking or peacekeeping measures.

Wastes mentioned in Annex IV and IVA of the EC Waste Shipment Regulation are always subject to the written notification and consent procedure in the case of transboundary shipment unless the export of such wastes to countries, to which the OECD Decision does not apply, is prohibited anyway (see Chapter 5.3.5 – export ban).

Note on Annex IVA
This is a list of wastes mentioned in Annex III of EC Waste Shipment Regulation that are also subject to the prior written notification and approval procedure.
Annex IVA is currently blank.

2. Unlisted wastes – notification obligation
The lists do not constitute a comprehensive system of all possible types of waste but are non-exhaustive lists. Wastes not mentioned in the above annexes are 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 prohibited *a priori* because of its hazardous characteristics.

3. Mixtures of wastes of Annex III (mixtures of Green Listed wastes)
Mixtures of Green Listed waste not classified under a single entry on the Annexes III, IIIA or IIIB are always subject to written notification and consent requirements in the case of transboundary shipment (cf. European Court of Justice Judgment in the "BESIDE"-case of 25 June 1998 (Case C-192/96).

4. Waste mixtures composed of Green List wastes and other wastes
Such waste mixtures always require written notification and consent in the case of transboundary waste shipment, if no export ban exists.

5. Wastes listed in the Annexes III or respectively IIIA in case of shipment to EU-Member States having transitional provisions (see Chapter 5.3.4) and to non-OECD-Member Countries, requiring a notification procedure (certain non-OECD Member Countries also have implemented an import ban; specific entries of Annex IIIA must not be shipped to non-OECD countries – see Chapter 5.3.8) – a future Commission Regulation will specify the control procedure for Annex IIIA in case of shipments to non–OECD Member Countries.

6. Wastes listed in Annex IIIB in case of shipment to OECD- and non-OECD Member Countries
Annex IIIB is currently blank.

5.3.3.3 Interim recovery and interim disposal operations
Shipments destined for interim recovery: R12 (exchange of wastes – e.g. conditioning of wastes for the preparation of alternative fuels or crushing and sorting processes); R13 (storage prior to final recovery) or for interim disposal D13 (mixing and blending); D14 (re-packaging) or D15 (storage prior to final disposal) are those, which take place prior to the final (= non-interim) recovery/disposal operation.
Referring to the issuance of the certificate of recovery or disposal please note the relevant **Correspondents Guidelines No 3 - Certificate for subsequent non-interim recovery or disposal according to Article 15(e)** of Regulation (EC) No 1013/2006 on shipments of waste.

General information
In case of collection or pick-up of wastes by a licensed collector of another EU Member State on Austrian territory, it has to be checked whether this person has also got an **Austrian or equivalent foreign authorisation for waste collection** and - in case of wastes requiring notification – whether this person has got a **valid permit** on the basis of a notification procedure for the wastes in question.
The evaluation of the "equivalency of the collection permit" has to be performed by the Governor of the relevant Austrian Federal Province.
A pre-requisite for the classification as **"equivalent permit"** pursuant to § 25 Para 2 (7) of the Austrian Federal Waste Management Act 2002 as amended is that the foreign legislation foresees the proof of the technical qualifications and capabilities required for the collection and treatment of waste, for which permission is being sought and reliability of the waste collector or conditioner and that the type of collection and treatment does not harm the public interest, when taking into account the relevant environmental aspects.

5.3.4 Wastes not requiring notification - formal requirements according to Art. 18 of the Waste Shipment Regulation

Annex III (GREEN LIST)
Wastes listed in Annex IX to the Basel Convention (= Part I of Annex III of the EC-Waste Shipment Regulation) and additionally those wastes listed in the OECD Council Decision (= Part

II of Annex III of the Waste Shipment Regulation are subject to the general information obligation pursuant to Art. 18 of the Waste Shipment Regulation No. 1013/2006.

For the purposes of the WSR the following shall apply:

a) any reference to list A in Annex IX to the Basel Convention shall be understood as a reference to Annex IV to the WSR;

b) in Basel entry B1020, the term 'bulk finished form' includes all metallic non-dispersible forms of the scrap listed therein (definition dispersible see Chapter 5.3.6).

c) the part of Basel entry B1100 that refers to 'slags from copper processing' etc., does not apply and (OECD) entry GB040 in Part II applies instead;

d) Basel entry B1110 does not apply and (OECD) entries GC 010 and GC 020 in Part II apply instead.

e) Basel entry B2050 does not apply and (OECD) entry GG 040 in Part II applies instead;

f) the reference in Basel entry B3010 to fluorinated polymer wastes shall be deemed to include polymers and copolymers of fluorinated ethylene (PTFE)

In the following cases, transboundary shipment of Annex III waste destined for recovery does not require written notification and consent:

- Shipment from all countries into/between EU Member States that are not subject to any separately agreed transitional rules

- Exporting into countries to 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 to which the OECD Council Decision C(2001)107/Final does not apply, but which pursuant to Art. 37 of the EC-Waste Shipment Regulation determined that they do not wish a control procedure for specific wastes listed on Annex III or IIIA of the WSR (see EC-Commission Regulation No. 1418/2007 and its amendments No. 740/2008 and No. 967/2009 or "list of countries": **www.umweltdaten.de/gav/Staaatenliste.pdf**)

Wastes not requiring notification (documents accompanying the shipment)

In case of transboundary shipments of waste, which do not require notification, the documents defined in **Article 18** of the EC Waste Shipment Regulation (form according to **Annex VII** of the EC Waste Shipment Regulation) must accompany the shipment provided the waste transported exceeds 20 kg.
Prior to the shipment a written **recovery contract** must have been concluded in accordance with Art 18.

The obligation to have documents accompanying shipments as set forth by Article 18 applies also for the transport of hazardous and non-hazardous waste **up to an amount of 25 kg** destined for **laboratory analysis** in accordance with Art. 3 Para 4 of the EC-Waste Shipment Regulation.

Only in these **cases of laboratory testing** a **disposal operation** (e.g. incineration test D10 or physico-chemical treatment D9) may be indicated in the Annex VII form.

In the case of shipment of **hazardous wastes** as defined by the **Austrian Ordinance establishing a List of Wastes (List of Wastes Ordinance)** as amended, which are specifically mentioned on the **Green List**, the **Annex VII form** is recognized as the **national consignment note** for hazardous wastes pursuant to the **Ordinance on Waste Reporting. Fed Law Gaz. No. 2003/613 as amended.**

Please note that the Austrian consignee of the wastes has to report the receipt of hazardous wastes to the Governor of the relevant Austrian Federal Province pursuant to Art. 18 Section 3 of the Waste Management Act 2002 as amended.

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

The **written recovery contract** (sample contracts see **www.umweltnet.at** – Abfall (=waste), Abfallverbringung (=waste shipment)) between the person who arranges for the shipment and the consignee for recovery of the waste shall be effective when the shipment starts and shall include an obligation, where the shipment of waste or its recovery cannot be completed as intended or where it has been effected as an illegal shipment, on the person who arranges for the shipment or, where that person is not in a position to complete the shipment of waste or its recovery (for example, in case of insolvency), on the consignee, to:
(a) take the waste back or ensure its recovery in an alternative way; and
(b) provide, if necessary, for its storage in the meantime.

The person who arranges for the shipment or the consignee has to provide a copy of the contract upon request by the competent authority concerned (= Federal Ministry of Agriculture, Forestry, Environment and Water Management) or enforcement officers such as customs and police.

A contract is not required in case of shipment of wastes destined for laboratory analysis pursuant to Art. 3 Para 4 of the EC-Waste Shipment Regulation.

Shipment of wastes not requiring notification (Green Listed wastes) destined for interim recovery operations (R12, R13)

According to the explanations of the European Court of Justice in the case "BESIDE" (C-192/96) **information on the final consignee (final recovery operation) is necessary on the Annex VII form or an attached file**. Preferably the attachment should be fixed to the Annex VII form in order to prevent change of documents during transport.

This information shall be presented to the authorities (Federal Ministry of Agriculture, Forestry, Environment and Water Management) or enforcement officers such as the police and the customs upon request.

In case of issuance of a **declaratory decree** by the regional district authority ("Bezirks-verwaltungsbehörde") referring to the classification of Green listed wastes an assessment of the subsequent final recovery operation(s) following the interim operation shall take place in order to exclude a shipment destined for a subsequent final disposal operation, as all shipments of wastes destined for disposal are subject to a notification procedure.

Wastes listed on Annex III and IIIA do not require written notification and consent in the case of transboundary shipment destined for recovery unless it:

- is shipped into an EU Member State subject to corresponding **transitional rules** for the import of such waste (Latvia, Poland, Slovakia, Bulgaria and Rumania) or

- is shipped into a country to which the **OECD Decision C(2001)107/Final does not apply** and that at the same time intends to apply a control procedure for the importing of such waste or that has issued no declaration to the EU.

Referring to the control procedure applied in case of export of wastes for recovery listed in Annex III and IIIA into non-OECD countries the **EC Regulation No 1418/2007 as amended by Regulation No. 740/2008 and No. 967/2009** shall apply (please note the current version on the website of the European Commission on shipments of wastes: **ec.europa.eu/environment/waste/shipments/legis.htm** or the consolidated "Staatenliste" (= "List of Countries" of the Federal Environment Agency Berlin): **www.umweltdaten.de/abfallwirtschaft/gav/Staatenliste.pdf**).

Effective period of the transitional rules for transboundary shipments of Green List waste into new EU Member States:

Member State	Transitional period for the import of Green List waste – Notification duty Up to
Latvia	31 Dec. 2010
Slovakia	31 Dec. 2011
Poland	31 Dec. 2012
Bulgaria	31 Dec. 2014
Romania	31 Dec. 2015

Annex IIIA - waste mixtures composed of Green Listed waste
Mixtures of specific wastes on the Green List, which in case of transboundary shipment destined for recovery within the EU or in OECD-Member Countries (unless deviations from the OECD-Council Decision apply) do not require a notification procedure have been laid down in the **EC-Regulation No 309/2009.**

All mixtures of wastes composed of Green Listed wastes, which are not explicitly mentioned, require notification.

Please ask the competent authority for the applicable control procedure for transboundary shipments of wastes listed in Annex IIIA destined for recovery operations in OECD- and non-OECD Member Countries. Up to now shipment of wastes listed in Annex IIIA is subject to a notification procedure (status: autumn 2009)

Annex IIIB - additional Green Listed waste within the EU
Annex IIIB lists waste that is not subject to written notification and consent procedure only in the case of transboundary shipment destined for recovery operations between EU Member States to which no transitional rules apply.

This instrument shall facilitate the shipment of certain types of wastes without hazardous

characterristics within the EU pending the decision on whether they will be included in the corresponding Annexes of Basel Convention or of the OECD Decision. This Annex IIIB is currently blank, but applications are pending at EU level for the inclusion of certain specified wastes.

General information referring to wastes not requiring a notification procedure
The person initiating the transboundary shipment has to check whether the consignee of the wastes has got the required permits in the country of destination.

5.3.5 Ban on export of hazardous wastes into non-OECD Member Countries

It is prohibited to export the following waste destined for recovery out of the EU into countries to which the OECD Decision does not apply:

- hazardous wastes mentioned in Annex V of the EC Waste Shipment Regulation
- waste mentioned in Part 3 of Annex V (Basel Annex II: waste collected from households and 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 wastes that are not classified under an individual entry in Annex V
- wastes that the country of destination has notified to be hazardous under Article 3 of the Basel Convention
- waste on which the country of destination imposed an import ban
- wastes which the competent authority of dispatch has reason to believe will not be managed in an environmentally sound manner, in the country of destination concerned.

5.3.5.1 Explanations referring to Annex V

Annex V consists of three parts: parts 2 and 3 apply only when part 1 is not applicable.

First, it is necessary to check whether the wastes destined for export are listed in part 1 of Annex V; if they are mentioned in list A of part 1 of Annex V, they are generally subject to an export ban (but see the “opting-out” clause governing exceptions below).

If the wastes are mentioned in List B of part 1, they may generally be exported (but see the “opting-in” clause governing exceptions below).

If wastes are not listed in part 1, it is necessary to check whether they are listed as hazardous wastes (= wastes followed by *) in part 2 (European Waste List). If so, they are generally subject to an export ban (but see the “opting-out” clause governing exceptions below).

If the waste is not listed in part 2, either, it is necessary to check whether it is mentioned in part 3.

Opting-in clause

The fact that a type of waste is not listed as hazardous in Annex V or that it is mentioned in list B of part 1 of Annex V does not mean that it cannot be classified as hazardous in exceptional cases; in fact waste is subject to an export ban, if it exhibits one of the hazard characteristics

defined by the EU (in the case of properties H3 through H8, H10, and H11, the EU limit values should be taken into account).

Example: Vanadium pentoxide catalysts (without additional contaminants resulting from the process where they have been used) constitute hazardous waste because of their material properties (note: in the list of substances included in the laws governing chemicals, vanadium pentoxide is classified as a class-3 teratogen and mutagen). Such vanadium pentoxide catalysts should be considered Green Listed waste (item B1120) in the case of shipment between EU Member States for which no transitional period exists, because the Green List also includes wastes whose recovery does not pose risks, but that nevertheless exhibit hazardous properties.

Exporting such wastes to non-EU countries where the OECD Council Decision does not apply is prohibited, since the waste exhibits a hazardous characteristic under EU law.

In the above-mentioned cases, the relevant Member State shall inform the intended country of destination prior to its decision.

Opting-out clause
In exceptional cases, on the basis of substantiating documents to be properly submitted by the notifier, it may be decided by EU-Member States that certain hazardous wastes listed in Annex V should be exempted from the export ban because they exhibit no hazardous characteristic (in the case of properties H3 through H8, H10, and H11, the EU limit values should be taken into account).

Such proof might conceivably be provided for certain (chemically) treated wood waste, for example. In the specified cases, the relevant Member State must inform the envisaged country of destination prior to taking a decision; in any case, shipment still requires written notification and consent.

Excursus: Hazard characteristics of the Basel Convention, OECD and European Union
The hazard characteristics of the Basel Convention and OECD are mainly defined by the UN classification criteria for the transport of hazardous goods.
The EU hazardous characteristics, in contrast, are based on classifications under laws governing chemicals, in which certain hazardous properties, such as H13, have not yet been standardised on the international level. As a result, the waste classifications may differ from one Member State to the next. In such cases, the stricter control procedure must be applied.

The waste list in the Basel Convention is based on substance-specific characteristics; 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 wastes to be controlled or wastes containing certain components) does not reflect the latest technical and scientific findings.

Annexes VIII and IX of the Basel Convention are based on the list in the original OECD Council Decision C(92)39 (three-tiered list system of wastes destined for recovery operations); in any case, in the above-mentioned OECD Decision, the wastes are listed according to their risk and not only according to their substance-specific (=intrinsic) characteristics.
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 case of an accident, and the risk of potentially environmentally unsound treatment in industrialised OECD countries.

The developments at Basel Convention level, especially the adoption of the two lists A and B (Annex VIII and IX) of the Basel Convention in November 1998, caused the OECD to harmonise Decision C(92)39 with those Basel Convention lists in order to avoid duplication of activities.

The result was the adoption of the OECD Council Decision C(2001)107 on 14 June 2001, in which Basel lists A and B (Annexes VIII and IX) are incorporated and additional entries of the earlier OECD Decision C(92)39 were listed. The OECD Council Decision was adopted in the context of the Amendment of the EC Waste Shipment Regulation with the adaptations of the Basel Annexes VIII and IX.

5.3.6. Classification criteria for Green List waste (= list of wastes subject to the general information obligation according to Art. 18 of the EC Waste Shipment Regulation)

This section gives the decisive criteria for classifying waste under the Green List.

Basic Requirements
Regardless of whether or not wastes are included on the Green list, they may not be classified as Green listed wastes if they are contaminated by other materials to an extent which
a) increases the risks associated with the wastes sufficiently to render them appropriate for submission to the procedure of prior written notification and consent, when taking into account the hazardous characteristics defined at EU level or
b) prevents the recovery of the wastes in an environmentally sound manner.

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

When classifying a type of waste, it should be classified according to its description and origin, considering the most appropriate entry of any of the lists in so doing, specific contaminants or constituents must be taken into account.

Remark: Certain Green List entries make reference to standards. The standards are given by way of example and the list is by no means exhaustive.

Non-dispersible /wastes without the risk of dispersibility
Waste in the form of powder, sludge, dust, or solid objects containing or enclosing hazardous waste in liquid form (e.g. accumulators, partly filled drums) is under no circumstances to be considered waste free from risks of dispersion.

Comment:
For example, waste metal is classifiable under the category “scrap” if most of the waste is in metallic form (=no metal oxides or other compounds) with no risk of dispersion and only a small portion of the waste has a particle size less than 100 micrometers (reference value for dispersibility).

That 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 (that is, the disperse or dispersible component thereof) 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 teratogenic lead compounds, the limit value is 0.5%); moreover, it is imperative not to exceed the limit values stipulated by laws governing chemicals in order to classify such waste under the Green List.

Thus, the permissible dispersible portion of waste (scrap) varies and depends on the toxicity of the metal compounds. In the case of iron or aluminium scrap, higher portions of iron oxide (rust) or aluminium oxide are permitted (see also the classification of iron scaling and aluminium

oxides/aluminium skimmings on the Green List).

This approach is also used in the EU Member States Finland and Bulgaria, for example. There is still no EU-wide standard interpretation of the terms “disperse” or “dispersible”, so that the interpretation by individual Member States may lead to different, sometimes contradictory results.

Relevance of hazardous content to classification of waste

Limit values and reference values
In general, when Green List wastes are contaminated, the applicable limit values are those stipulated by the Austrian Ordinance establishing a List of Wastes (List of Wastes Ordinance), Federal Law Gazette II No. 570/2003, as amended (= implementing the Commission Decision amending Decision 2000/53/EC concerning a Waste Catalogue, as amended).

If the associated limit values are exceeded (as defined by Annex 3 of the List of Wastes Ordinance), it should be assumed that such waste is hazardous waste, not classifiable under the Green List unless specifically stipulated otherwise in the comments on certain items in the Green List (cf. catalysts).

Recovery restrictions on the basis of pollutant limitation at EU level
In case of assignment of wastes to the Green List in any case recovery restrictions for wastes exceeding certain pollutant limits, which have been laid down at EU level have to be taken into consideration.

An environmentally sound management can be assumed on the condition only that these limitations are met, even if according to national legislation in the country of destination (non-EU Member State), higher pollutant levels are accepted and the wastes are classified as Green Listed waste according to the national legislation in this country.

Therefore in cases where pollutant limits referring to recovery/recycling restrictions at EU level are exceeded, the transboundary shipment of such wastes requires notification.

Mass percentage
The percentages of hazardous substances or components (limit values or, in certain cases, reference values) indicated for Green List entries should be understood to mean mass percentage.

Predominance of the more stringent classification (Art. 28 of the EC-WSR)
If in the state of dispatch or destination more stringent limits or guidance values are applicable for the classification of wastes on the Green List than in Austria, in any case the more stringent criteria shall predominate, as pursuant to Art. 28 of the EC-Waste Shipment Regulation in case of divergences of classification the more stringent procedure (notification) shall prevail.

Shipments of waste destined for energy recovery (**use principally as a fuel or other means to generate energy)**
Even Green listed wastes, destined for energy recovery (waste fuel) have to meet the criteria of the Guideline for Waste Fuel or respectively the Ordinance on Waste Incineration in the current version so that an admissible recovery in the meaning of R1 can be assumed.

Removal of hazardous substances
Particularly in the case of waste electrical and electronic equipment (WEEE), end-of-life vehicles and ships, remember 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 old ships) in order to classify such waste in the Green List. For more details, see the descriptions for those entries.

Baled scrap cars with no 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 (it is therefore unlisted waste subject to the written notification and consent procedure).

PCB/PCT
Waste, substances and objects that contain, consist of, or are contaminated with polychlorinated biphenyls (PCB) and/or polychlorinated terphenyls (PCT) including all analogous compounds and that exhibit a concentration greater than 30 mg/kg dry mass (according to Austrian legislation; according to international legislation: 50 mg/kg dry mass) are classifiable as waste subject to notification requirements (e.g. the contaminated non-ferrous metal heavy fraction scrap).

Note on PCB-analysis
When shipping PCB-contaminated or PCB-containing wastes, 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. According to the customary method in Germany, the total PCB-content is estimated from the concentration of 7 main substances and then multiplied by a factor of 5!
This means that in case of transboundary shipment to Germany the PCB content (according to Austrian provisions for PCB analysis) must not exceed 10 mg/kg dry mass.

PBDE (Polybrominated diphenyl ethers) and PBB (polybrominated biphenyls)
According to EC-Directive on the restriction of certain hazardous substances in electrical and electronic equipment, **2002/95/EC (RoHS Directive)** a ban on placing on the marking of PBB (polybrominated biphenyls) and PBDE (polybrominated diphenyl ethers) has been laid down, tolerating a maximum concentration of **0.1 weight% of PBB and PBDE** per homogeneous material.

Therefore it is important to note that in case of recycling of waste containing brominated flame retardants in electrical and electronics industry applications the **limitation for penta-, octa- and decabromodiphenyl ether (limit <u>in total: 0.1%</u>)** under the ROHS Directive is met.

In cases where the **content of 0,1%** for the **sum of penta-, octa- and decabromodiphenyl ether** or the content of **<u>50 ppm</u>** (=0,005%) for **polybrominated biphenyls** in wastes (homogenous material) is exceeded a notification procedure is required, independently from the subsequent recovery operation.

When wastes containing brominated flame retardants are being recycled in other industrial sectors, the relevant chemical regulatory provisions have to be referred to (prohibitions apply for pentabromo- and octabromo-diphenyl ether – limit of 0.1% in accordance with **EC Directive 2003/11/EC**). Anyway the additional restrictions set out in the **Austrian Treatment Obligation Ordinance** as amended have to be taken into consideration, allowing material recycling of plastic housings of WEEE with halogenated flame retardants only in those applications, where the respective agents or additions to the new product are required on the basis of technical requirements.

In any case more stringent limits fixed by the COP to the Stockholm Convention or in the EC-POP Regulation have to be obeyed in the future.

Mineral oil contamination
Wastes that are contaminated with mineral oil to an extent of more than 2% (=20,000 mg/kg dry mass) are always subject to the written notification and consent procedure in the case of transboundary shipment.

Note: In Bulgaria or Germany, according to national regulations, waste may be shipped as Green List waste if contaminated with mineral oil by no more than 1% and 0.8% respectively.

Wastes containing persistent organic pollutants (POP wastes)
Regulation (EC) No 850/2004 on persistent organic pollutants, amending Directive 79/117/EEC (POP Regulation), as amended by Regulations (EC) No 1195/2006, No. 172/2007 and No. 323/ 2007, as last amended by Regulation (EC) No. 304/2009 changing Annexes IV and V of the EC-POPs Regulation with regard to the treatment of POP waste in thermal and metallurgical production processes contain rules on the treatment of POP waste.

POP wastes must be recovered or disposed of in a manner that the pollutants contained will be destroyed or irreversibly transformed. On the one hand POP-wastes, the POP-content of which lies below certain limit values (5,000 mg/kg - with the exception of PCB and PCDD/PCD:), may be disposed of in landfills for hazardous wastes in line the EC Directive on landfill of waste and Council Decision on landfills) and on the other hand, certain wastes listed in Annex V to the above mentioned regulation may be disposed of when exceeding the specified limits e.g. by means of underground storage in salt mines.

These lower limits, which have been integrated in Annex IV of the Regulation are the following:
- for **PCBs: 50 mg/kg**
- for **polychlorinated dibenzo-dioxins and furans (PCDD** / **PCDF)**: **15 µg TEQ/kg**
- for **other pesticides**: **50 mg/kg.**

At the 5th Conference of Parties to the Stockholm Convention in May 2009 new substances were listed on the list of POP-wastes, inter alia the brominated flame retardants octabromo- and pentabromodiphenyl ether, tetrabromo- as well as hexa- and heptabromodiphenyl ether as impurities of octabromodiphenyl ether and the impregnating agent perfluoro-octan sulfonate (PFOS). Harmonized limit values for these new POP substances have not been fixed in the EC-POP-Regulation and the CLP (=Classification, Labelling and Packaging) Regulation No.1272/2008 yet.

Radioactivity
Green List waste, particularly scrap, may 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 may they have radioactive contaminants (substances that exhibit radioactivity greater than the natural background radiation, e.g. non-natural radio nuclides 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, Fed. Law Gaz. II No. 47/2009), which entered into force on Feb. 19 th 2009, implemented the Directive 2006/117/Euratom into national legislation.

The Radiation Protection Act (Fed. Law Gaz No. 227/1969) has been amended several times in order to comply with the European Legislation. A series of ordinances are based on the

Radiation Protection Act such as the General Radiation Protection Ordinance (Fed. Law Gaz. II No. 191/2006).

The **limit values for the different nuclides (permitted limits)** are listed in the **Annex to the General Radiation Protection Ordinance** (see: **www.umweltnet.at** – link: Atomenergie& Strahlenschutz, Strahlenschutz, Recht im Strahlenschutz)

Shipment of wastes (e.g. waste metals) considered radioactive in the meaning of the Austrian Radiation Protection Act or respectively the Austrian Radiation Ordinance, require the appropriate regulatory approvals in accordance with the radiation protection legislation.

5.3.7 Chemicals Legislation

5.3.7.1 REACH

REACH stands for **R**egistration, **E**valuation, **A**uthorization and Restriction of **Ch**emicals.

The REACH Regulation (EC) No 1907/2006 is directly applicable to all Member States and does not require national implementation.

Waste is excluded from REACH, as waste within the meaning of the EC Waste Framework Directive is not neither a substance, mixture (preparation) nor product within the meaning of REACH.

If the materials are recycled from wastes and cease to be waste then they are subject to the registration obligation of REACH, if no explicit exemption clause is foreseen in REACH.

REACH foresees an exemption from the registration obligation for recycling materials on specific conditions. The registration is no act which changes the waste characteristics.

5.3.7.2 CLP Regulation

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

The main content of the Regulation on Classification, Labelling and Packaging of substances and mixtures (=GLP Regulation (EC) No 1272/2008) refers to new rules for the classification and labelling of hazardous chemical substances and mixtures (preparations). Instead of 15 hazard characteristics approx. 30 hazard classes will apply (the increase of hazard classes is due to further sub-division of chemical-physical characteristics following the Legislation on transport of dangerous goods).

A future harmonisation of the waste management legislation with the CLP-Regulation is being expected.

5.3.8. Detailed description of the types of waste on Annex IIIA (defined mixtures composed of wastes of the Green List) and Annex III (Green List):

Note: items followed by [1] are Annexes to the Basel Convention.

It has to be pointed out that the assignment of wastes on the Green List to the entries of the European Waste List (EWL) is non-exhaustive and provides examples.

5.3.8.1 ANNEX IIIA – (Mixtures of Green listed wastes – Green List procedure)

By means of Annex IIIA (EC Regulation No. 308/2009) shipments of defined mixtures of wastes on the Green List destined for recovery in the EU or in OECD-Member Countries have been subject to the Green List procedure. Wastes listed in Annex IIIA may be shipped to specific non-OECD-Member Countries for recovery without notification procedure (except mixtures containing wastes of the code GB 040), if this procedure has been laid down in a specific EC Regulation.

Regardless of whether or not mixtures are included on this list, they may not be subject to the general information requirements laid down in Article 18 (general information obligation – Annex VII-form and existence of a recovery contract), if they are contaminated by other materials to an extent which:

a) increases the risks associated with the wastes 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 Annex III to Directive 91/689/EEC; or

b) prevents the recovery of the wastes in an environmentally sound manner.

ENTRIES OF ANNEX IIIA

1. Mixtures of waste classified under Basel entries B1010 (ferrous and non-ferrous metals) and B1050 (mixed non-ferrous metal, heavy fraction scrap)

2 . Mixtures of waste classified under Basel entries B1010 (ferrous and non-ferrous metal wastes) and B1070 (wastes of copper and copper alloys in dispersible form)

3. Mixtures of waste classified under (OECD) entry GB 040 (slags from precious metals and copper processing for further refining) and under Basel entry B1100 (metal-bearing wastes arising from melting, smelting and refining of metals), restricted to:

- **hard zinc spelter**
- **zinc-containing drosses**
- **aluminium skimmings (or skims) excluding salt slag**
- **wastes of refractory linings, including crucibles, originating from copper smelting****

4. Mixtures of waste classified under (OECD) entry GB 040 (slags from precious metals and copper processing for further refining), under Basel entry B1070 (wastes of copper and copper aloys in dispersible form) and under Basel entry B1100 (metal-bearing wastes arising from melting, smelting and refining of metals) restricted to:

- **wastes of refractory linings, including crucibles, originating from copper smelting****

** In contrast to the addition of other waste types, the absence of one or more components in the defined mixture does not cause as change of classification, i.e. the Annex IIIA classification is maintained.

Ban on exports of mixtures containing wastes of the Code GB 040 to non-OECD Member Countries

As advanced recovery techniques are essential when mixtures of wastes include slags from precious metals and copper processing (**code GB 040**) and it is not guaranteed that countries to which the OECD Decision does not apply, meet these standards, the shipment of these specific mixtures is not admissible.

Physical characteristics:
Mixtures 1: solid, non-dispersible
Mixtures 2 to 4: solid, with dispersible fractions

Detailed description:
For more details, such as descriptions of the waste, designation and EWL designation, refer to the explanations on the relevant entries, which are contained in the above mentioned mixtures.

For all entries of Annex IIIA the following conditions shall apply from a technical perspective:

The level of non-metallic, non-hazardous impurities, which must not interfere the recovery process in the above-mentioned mixtures may be **8%** (**at max**. **10% in individual batches**) on the basis of the **European Scrap Specification List** (lowest quality).

The fundamental requirement of the assignment of mixtures to Annex IIIA is that each individual component of the mixture itself does **not constitute hazardous waste** and that **no other components**, such as hazardous or non-hazardous wastes or other materials are mixed to the precisely defined mixture.

A **mixture of hazardous waste with non-hazardous waste** for the purpose of dilution of the pollutants is certainly unacceptable and automatically triggers a **notification obligation** for this waste mixture (unlisted waste).

Demarcation from other, similar Green List wastes:
- Mixed non-ferrous metals, heavy fraction scrap, not containing Annex I[1] materials in concentrations sufficient to exhibit Annex III[1] characteristics – see **B1050**

Demarcation to unlisted waste mixtures, requiring notification
- Mixtures of scrap and other metal wastes as specified in the given descriptions must not be subsumed under Annex IIIA, if the level of impurities such as shredder light fraction (fluff) or plastics **exceeds 8%** (**or 10%** in **individual batches**) or which are contaminated with hazardous substances (e.g. asbestos, mineral oil, chloro-phenols) or hazardous wastes (e.g. waste oil, PCB, mercury wastes) to an environmentally relevant extent, which triggers a hazard criterion – unlisted waste

5.3.8.2 Annex III (Green List)
B1 Metal and metal-bearing wastes

Precious metal wastes

Designation:	**Green List B1010**
Metal and metal-alloy wastes in metallic, non-dispersible form **Precious metals (gold, silver, the platinum group, but not mercury)**	

Physical characteristics: solid, in metallic, non-dispersible form

Other designations: precious metal scrap, silver (**Ag)**, platinum (**Pt**), gold (**Au**) scrap; the following are described as platinum-group metals: ruthenium (**Ru**), osmium (**Os**), rhodium (**Rh**), iridium (**Ir**), palladium (**Pd**), and platinum (**Pt**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:

The following are designated as platinum-group metals: platinum, iridium, osmium, palladium, rhodium and ruthenium.

- 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)

Note: Waste contaminated with mercury or containing mercury in alloys, as well as amalgams, are 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.

Demarcation from other, 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 **GC 020**
- Waste photographic film containing silver halides and paper waste – see **B1180** and **B1190**
- Ash from the incineration of photographic film containing silver – see **B1170**
- Precious metal ash, sludge, dust and other residues – see **B1150**
- Ash from the incineration of printed circuit boards without hazardous characteristics – see **B1160**
- Silver-containing precipitation residues from photo processing solutions (by no means 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 **GB 040**
- Spent precious metal catalysts, to the extent cleaned – see **B1130**
- Precious metal ash, sludge (no anode slime), dust and other residues, but without hazardous characteristics – see **B1150**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Mercury as a metal or alloy (amalgams) – see **A1010** and **A1030**
- Mercury-containing components such as mercury switches, mercury-containing rectifiers – **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. in case of high nickel content)
- Residues from (cyanide) baths containing precious metals – see **A4050**
- Silver oxide-bearing round-cell batteries (such batteries have 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 of 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**
- Packaging/containers with residues of solvent-bearing precious metal paste or precious metal pastes containing toxic heavy metals – see **A4130**
- Precious metal alloys with mercury (amalgams, e.g. tooth amalgams) – see **A1010** or **A1030**

Iron and steel scrap

Designation	**Green List B1010**
Metal and metal-alloy wastes in metallic, non-dispersible form **Iron and steel scrap**	

Physical characteristics: solid, in metallic non-dispersible form
Note: dispersible oxide residues are permissible

Other designations: Waste and scrap made of iron (**Fe**) and steel, stainless steel, "household scrap", cast iron waste, iron drums, tinplate waste, shavings from turning, milling and filing

EWL designation:
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 metals removed from bottom ash
19 10 01 iron and steel waste
19 12 02 ferrous metal
20 01 40 metals

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Quality requirements
The **quality requirements for iron scrap** are published in the **European Steel Scrap Specification**, and established in agreement between EUROFER (European Steel Industry Association) and the EFR (European Recycling Association for iron and steel). According to that **European Steel Scrap Specification** (**www.bdsv.org/downloads/sortenliste_eu.pdf**, *English version:* ***http://www.scholz-ag.de/english/produkte/c_produkte_fe.htm***), 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%**).

Note: Iron and steel scrap whose level of non-hazardous and non-metallic impurities exceeds the permissible level of **8%** according to the guidelines of the European Steel Scrap Specification, are subject to notification procedure and consent by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management in the case of transboundary shipment. A degree of non-hazardous, non-metallic impurities up to **at maximum 10%** may be tolerated in **single batches**.

In the case of presence of **waste incinerator slag to an extent of more than 5% on an average basis** 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 due to the fact that there is no entry for this waste type on the Green List (Y47 – Amber List). Single batches of iron or steel scrap transports may show contents of waste incineration slag of **at maximum 8**% (Steel Scrap Specification List).

In case of exceeding these limit values the scrap shows a contamination of Green Listed waste with Amber Listed waste. Consequently **notification** is required for the shipment of the conta-

minated scrap.

Excerpt from the European Steel Scrap Specification referring to impurities

- "All scrap varieties should be **free - except for insignificant amounts - from other, non-ferrous metals and non-metallic substances,** soil, insulation, excessive iron 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 tires, 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 waste incineration plants** must have undergone magnetic separation, been cut into small pieces, in no case greater than 200 mm, may partially contain tin-coated steel cans, but must be pre-treated for direct input. The scrap should be **free of** excessive moisture, rust and excessive amounts of visible **copper, tin, lead (and alloys),** and free of "**debris" (=impurities)** in order to comply with the required analytical results."

Detailed description:
Unalloyed iron scrap must not contain any levels of certain elements above the specified limit values

- 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
- Lathing 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).
- 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 risk-relevant properties
- "Household scrap" (iron scrap from home pick-up), such as bicycles, iron sheets, etc. **(metal content higher than 92%)** 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 92%.**
- Used iron or steel rails (without railway sleepers)

Note: Drilling shavings, lathing shavings and filing shavings with a **high oil content (>2%)** constitute hazardous waste because of the oil contamination and therefore require notification.

Containers emptied of residues of substances and preparations subject to labelling with a "skull" or "explosive" danger symbol pursuant to chemicals legislation constitute hazardous waste and are excluded from the Green List; drained tight-head drums that contained oils or other hazardous viscous substances, constitute hazardous waste by reason of the residual contamination (not completely drained), which is classifiable under **A4130** (Amber List of waste - notification is required).

Demarcation from other, similar Green List wastes:

- Engines (without capacitors) consisting of iron and copper and classifiable in the Green List – see **GC 010**
- Mill cinder (mill scale), if free from contamination (e.g. oil) within the meaning of the basic requirements for classification in the Green List – see **B1230**
- Wrecked vehicles after removal of all the liquids contained in them (removal of harmful substances) – see **B1250**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Old refrigerators with CFC/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 scrap 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
- "Iron braid" from waste paper recycling (mixture of iron/steel wire, scrap paper and plastics) - unlisted waste
- "Magnetic scrap" (e.g. from industrial waste treatment) which shows a high content **(>10%)** of non-metallic, non-hazardous contaminants (e.g. shredder waste) – unlisted waste
- Slags, cinder or scale with hazardous contamination and other wastes from the manufacture of iron and steel (e.g. cinder from processes other than milling processes or mill scale, contaminated) - see **AA 010**
- 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 emptied of substances and preparations that must be labelled with a "skull" or "explosive" danger symbol according to chemicals legislation, emptied tight-head drums that contained oil or other hazardous viscous substances – see **A4130**
- Used blasting grit made of iron/steal with hazardous or non-hazardous contaminations – see **AB 130**
- Wastes of shotgun hulls (consisting of plastic, metals and paperboard) – unlisted (composite material)

Copper scrap

Designation	**Green List B1010**
Metal and metal-alloy wastes in metallic, non-dispersible form **Copper scrap**	

Physical characteristics: solid, in metallic non-dispersible form
Note: dispersible oxide residues are permissible

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)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

- 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 (such as 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 recycling), not in dispersible form
- Gunmetal and bronze waste (gunmetal scraps such as machinery bearings, valves, 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)

Demarcation from other, similar Green List wastes:
- Copper or copper alloy powder, copper refinement materials with high contents of copper oxide, copper ash and dross, copper-containing residue, brass dross, gunmetal dross and ash without hazardous characteristics (e.g. spouts with high metal content), carbon brush waste (copper with coal reside 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, brass scale, copper sintering materials (without hazardous characteristics**)** – see **B1240**
- Unpopulated or depopulated printed circuit boards without hazardous components (cf. Ordinance on Waste Treatment Obligations, Fed. Law Gaz. II No. 459/2004 as amended and the Waste Electrical and Electronic Equipment Ordinance, Federal Law Gazette II No. 121/2005 as amended and the Austrian Standard ÖNORM S 2106) – see **GC 020**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Copper-containing galvanic sludge – see **A1050**
- Ash, dross and residues of copper, brass, bronze, gunmetal and other copper alloys with hazardous characteristics (e.g. lead oxide content > 0,5% - teratogenic) – unlisted waste
- Drawing sludge that accumulates from the drawing of copper and is contaminated with drawing product residue – unlisted waste
- Copper compounds such as copper vitriol, copper chloride, copper cyanide – see **A4140** chemicals
- Populated or partially depopulated printed circuit boards with hazardous components within the meaning of the Ordinance on Waste Treatment Obligations Federal Law Gazette II No. 459/2004 as amended, of the Waste Electrical and Electronic Equipment Ordinance, Federal Law Gazette II No. 121/2005 and Austrian standard ÖNORM S 2106) – see **A1180**
- Insulated copper cable showing 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 wire – see **A1090**
- Dust and residues from flue gas cleaning systems of copper smelters – see **A1100**
- Used 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**
- Used pickling and etching solutions containing dissolved copper – see **A1130**
- Waste 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
- Beryllium copper waste and beryllium copper compounds in dispersible form – see **A1010** and **A1020**

Note: Beryllium and its compounds are to be classified as carcinogenic, category 2 (H7 criterion), beryllium-containing vapours and aerosols (atomised) cause lung damage.

Nickel scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap nickel **(Ni),** Monel scrap **(**nickel-copper-iron alloy), nickel-silver scrap (nickel-copper-zinc alloy); formerly known in German as “Alpaka”, “Argentan”, “Minargent” “Pakfong”; *plata alemana* (“German silver”)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

Note: Nickel oxide is classified as carcinogenic (H7: 0,1%). Nickel compounds are classified as carcinogenic for humans (categories 1 through 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 other, similar Green List wastes:
- Raney-nickel catalysts – see **B1120**, (to the extent not contaminated with hazardous residue (e.g. from processing)

Demarcation from other Amber List wastes or unlisted waste (notification):
- Nickel-cadmium, nickel/iron, nickel/nickel hydride storage batteries (hazardous wastes (cf. 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– see **A4140**
- Nickel-containing galvanic sludge – see **A1050**
- Nickel-containing waste liquors from the pickling of metals – see **A1060**

Aluminium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form
Note: dispersible oxide residues are permissible

Other designations: wastes and scrap of aluminium (**Al)** or aluminium; aluminium sheet, aluminium profiles, turning, grinding and filing shavings, aluminium alloy scrap

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
The following waste are designated as aluminium scrap to the extent not mixed with hazardous waste:

- Wire and sheet scrap, rolled aluminium, household scrap/household pots and pans
- Aluminium, free from shredder waste
- Beverage cans, steel-free, lead-free, and free from bottle caps and rubbish, 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 wastes (without glass parts) and parts thereof, if it is guaranteed that possibly attached insulation foam is free of CFCs and PCB (wastes from nowadays production are free of CFCs and PCB)
- 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)

Containers emptied of residues of substances and preparations subject to labelling with a “skull” or “explosive” danger symbol pursuant to chemicals legislation constitute hazardous waste and are excluded from the Green List; drained tight-head drums that contained oils or other hazardous viscous substances, constitute hazardous waste by reason of the residual contamination (not completely drained), which is classifiable under **A4130** (Amber List of waste - notification is required).

Demarcation from other, similar Green List wastes:

- Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning or flocculation and filtration processes – see **B2100**
- Catalysts based on aluminium oxide (zeolites), not contaminated – see **GC 050**
- Aluminium motor units after oil drainage – also see **GC 010**
- Light-alloy skimmings, aluminium-containing (without hazardous characteristics; minimum metallic aluminium content of **45%**; in **single batches**: lowest admissible limit: **40,5%**) – see **B1100**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Aluminium dross with hazardous characteristics - unlisted waste
- Aluminium salt slag - unlisted waste
- Ball-milled powder from dross processing - unlisted waste
- Aluminium oxide and hydrate (=hydroxide), contaminated - unlisted waste
- Fly ash and dust from industrial pollution control devices for cleaning of industrial off-gases that contain aluminium– see **A4100**
- Catalysts based on aluminium oxide, to the extent contaminated – see **A2030**

Zinc scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of zinc (**Zn**), titanium zinc (alloy with small quantities of titanium and copper)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Sheet zinc scrap (stamping scrap, covers)
- Cast zinc parts, plates, mouldings
- Zinc alloy scrap
- Zinc anodes from zinc-air storage batteries (zinc-air batteries are button cell batteries; anode = zinc powder, cathode = atmospheric oxygen that oxidises into zinc hydroxide as the zinc discharges).

Demarcation from other, similar Green List wastes:
- Hard zinc spelter and zinc residues/slags/drosses/skimmings (metallic zinc content **at least 45%**; in **single charges** : lowest admissible limit: **40,5%**) – see **B1100**
- Zinc ash and dust, residues in dispersible form – see **B1080**
- Zinc catalysts cleaned – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Leaching residue 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, as a 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-aluminium chloride dross, ash and slag with lead, cadmium contamination or hazardous characteristics – see **A1080** or unlisted waste

Tin scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, non-dispersible

Other designations: wastes and scrap of tin; sheet tin; tinfoil;

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Hard pewter (table ware and siphon trap), tin pipes, block tin
- Babbitt metal with high tin content
- Soldering tin, if it has low oxide contamination (less than 0.5% lead oxide)

Note: 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 – teratogen – if lead compound content exceeds 0.5% – hazardous waste); it must not be dross.

Demarcation from other, similar Green List wastes:
- Tantalum-bearing tin slags with less than 0.5% tin – see **B1100**

Demarcation from other Amber List wastes or unlisted waste (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 teratogen: 0.5% lead compounds) – see **A1020**
- Tantalum-bearing tin slags with less than 0.5% tin, with hazardous characteristics – unlisted waste

Tungsten scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in non-dispersible form

Other designations: waste and scrap of tungsten (**T**); tungsten waste, Widia; (tungsten carbide = chemical symbol:" WC"' is a registered trade name for hard metal); waste of sintered material

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

Demarcation from other, 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**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Tungstenate and tungsten compounds (other than carbides) - unlisted waste or if chemicals – see **A4140**
- Tungsten catalysts (contaminated) – see **A2030**

Molybdenum scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in non-dispersible form

Other designations: wastes and scrap of molybdenum (**Mo**); ferromolybdenum waste

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Molybdenum alloy waste such as ferromolybdenum, nickel-molybdenum, nickel-chromium molybdenum
- Molybdenum aircraft scrap and rocket parts (heat shield)

Demarcation from other, similar Green List wastes:
- Metallic molybdenum waste and alloys in dispersible form – see **B1031**
- Molybdenum carbide waste (Refractory metals containing residues) – see **B1030**
- Molybdenum catalysts (cleaned) - see **B1120**

Demarcation from other Amber List wastes or unlisted waste (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**

Tantalum scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap tantalum (**Ta**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Metallic tantalum waste from the manufacture of special apparatus (medical implants, instruments)
- Off-specification batches from powder metallurgy in non-dispersible form

Demarcation from other, 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 – perhaps also see **GC 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Tantalum-containing salts, to the extent that chemical waste is present – see **A4140**
- Tantalum catalysts (contaminated) – see **A2030**
- Tantalum-containing tin slag with hazardous characteristics - unlisted waste
- Tantalum-electrolytic capacitors - unlisted waste or maybe **A1180**

Magnesium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid

Other designations: waste and scrap of magnesium (**Mg**), cast magnesium scrap, magnesium foam blocks with more than 75% metallic magnesium (not contaminated, not flammable and not auto-igniting)

EWL designation:
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

Detailed description:
- Milling and drawing waste of magnesium alloys (sheets, pipes, bars, nozzles)
- Casting 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 auto-igniting, and do not emit hazardous quantities of flammable gases when exposed to water (pressure compaction with massive iron plates prevents the magnesium from igniting, which limits the oxide component)

Demarcation from other, similar Green List wastes:
- Housings, engine parts (oil-free) – see **GC 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Inflammable and pyrophoric magnesium waste such as magnesium milling shavings, file shavings, powder; magnesium salt slags; magnesium dross– see **AA 190**

Note: 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!

Cobalt scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of cobalt (**Co**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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 and space travel)

Demarcation from other, similar Green List wastes:
- Spent cobalt catalysts (cleaned) – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Spent cobalt catalysts, if contaminated – see **A2030**
- Cobalt salts that accumulate in the form of chemicals – see **A4140**
- Cobalt-containing galvanic sludge – see **A1050**
- Dust, slag and ash – unlisted waste or in the case of filtration dust, fly ash – see **A4100**

Note: The radioactive isotope ^{60}Co emits gamma rays – it is important to observe the corresponding radiation protection provisions!

Bismuth scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: bismuth scrap (**Bi**), wastes and scrap, shavings of bismuth; Bismanol (magnetic alloy with manganese)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Alloys with a low melting point (Wood's metal: melting point 60 °C; Rose metal: melting point of 94 °C)
- The alloy Bismanol with manganese is a strong permanent magnet.

Demarcation from other, similar Green List waste:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Bismuth-containing filtration dust from copper production is the main source of bismuth reclaiming – see **A1100**
- Bismuth-containing fly ash, filtration dust from lead production, etc., are also main sources for bismuth production– see **A4100**

Titanium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of titanium

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Metallic titanium waste (wastes from propeller parts such as shafts, superconducting niobium-titanium alloys, springs in motor vehicle undercarriages)
- Waste implant substances 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

Demarcation from other, 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), containing no solvents or other hazardous substances – see **B4010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Titanium compounds that accumulate in the form of chemical waste – see **A4140**
- Spent titanium catalysts, if contaminated – see **A2030**
- Titan-containing galvanic sludge – see **A1050**
- Titanium oxide residue in the form of paints, dyes and pigments containing solvents or other hazardous substances – see **A4070**

Zirconium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of zirconium (**Zr**); zirconium scrap

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Zirconium scrap, e.g. from light-alloy construction (aircraft)

Demarcation from other, similar Green List wastes:
- Spent zirconium catalysts (cleaned) – see **B1120**
- Zirconium scrap from refractory linings (zirconium oxide has a melting point of approx. 3000°C), including copper smelting crucibles, without hazardous contamination – see **B1100**
- Linings and refractories from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics (e.g. linings and refractory from steel processing) – see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Zirconium-based polishing and grinding products – unlisted waste
- Sands used in foundry operations – see **AB 070**
- Blasting grit – see **AB 130**
- 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 according to the contaminants in list A (Amber List of waste)
- 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!

Manganese scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: waste and scrap of manganese (**Mn**); waste ferromanganese

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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%.)

Demarcation from other, similar Green List wastes:
- Manganese-containing dry batteries and zinc-manganese dioxide storage batteries – entry **B1090** must not be used. Alkali-manganese and zinc-manganese batteries as well as all other batteries due to their hazardous characteristics (cf. electrolytes) have to be classified as Amber listed waste (see **A1170**).
- Manganese catalysts (cleaned) – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (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**

Germanium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: waste and scrap of germanium (**Ge**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

Demarcation from other, similar Green List wastes:
- Electronic scrap (without hazardous characteristics) with germanium components, e.g. transistors – see **GC 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste from cathode-ray tubes with coating (e.g. phosphor) – see **A2010**
- 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 to render them hazardous – see **A1080**
- Germanium-containing flue dust, fly ash, sludge (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**

Vanadium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of vanadium (**V**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Waste ferrovanadium (alloy of 50% iron and 50% vanadium – special steel)
- Vanadium-containing steel scrap from axles, crankshafts, gears in transmission construction
- Waste of vanadium-Gallium (superconducting magnets)

Demarcation from other, similar Green List wastes:
- Slags arising from the manufacture of iron and steel (without hazardous characteristics) that are used for the manufacture of vanadium – see **B1210**
- Vanadium-containing catalysts (cleaned) – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Vanadium-containing catalysts (contaminated) – see **A2030**
- Vanadium-containing dust and ashes (including vanadium-containing ash from oil firing) – see **AA 060**
- Vanadium-containing waste water sludge from mineral oil processing – see **AC 270**

Note: Vanadium dust is highly flammable. Vanadium compounds are highly toxic. Inhaling vanadium-containing dust can cause lung cancer.

Hafnium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of hafnium **(Hf)**
EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Various wastes of hafnium alloys

Demarcation from other, similar Green List wastes:
- Hafnium is usually present in the form of hafnium carbide in hard metals (refractory metals containing residues)– see **B1030**
- Spent hafnium-containing catalysts (cleaned) – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Dispersible hafnium waste (dust and ash) – unlisted waste
- Spent hafnium-containing catalysts (contaminated) – see **A2030**

Note: Hafnium is pyrophoric. Shavings and dust of metallic hafnium ignite when exposed to air. Radioactively contaminated hafnium waste and activated hafnium – Observe the radiation protection provisions!

Indium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of indium (**In**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Indium solder waste (e.g. Indium/tin alloys)

Demarcation from other, similar Green List wastes:
- Lead solders and Babbitt metal (with indium as alloy component) – see **B1020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Phosphors and pigments – see **A4070**
- Indium compounds (salts), to the extent that they accumulated as chemical waste – see **A4140**, otherwise unlisted waste
- Wastes of wafers (= thin slices of metal plates/discs of different size, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) made of indium phosphide (harmful) – unlisted waste

Radioactively contaminated scrap and activated indium - observe radiation protection provisions!

Niobium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: waste and scrap of niobium (=columbium) **(Nb)**

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Niobium alloy waste (such as special high-grade steel and non-ferrous alloys), e.g. from pipe construction (pipelines)
- Ferroniobium and nickel niobium waste (super alloys), e.g. waste of gas turbines, rocket parts and heat-resistant components

Demarcation from other, similar Green List wastes:
- Metallic niobium waste in dispersible form – see **B1031**
- Niobium carbide (refractory metals containing residues) – see **B1030**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Niobium waste contaminated with hazardous substances – unlisted waste
- Waste of components of high-powered sodium vapour-discharge lamps – unlisted waste

Note: 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!

Rhenium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of rhenium (**Re**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Waste wire and wire mesh (from mass spectrometers, hot cathodes)
- Super alloy waste, e.g. certain gas turbine parts
- Waste of sintering of rhenium powder in a vacuum or in hydrogen atmosphere (compact pieces with a density up to 90% of the metallic element)

Demarcation from other, similar Green List wastes:
- Rhenium catalysts (cleaned) – see List **B1120**
- Metallic rhenium waste and alloys in dispersible form – see **B1031** (usually traded in the form of this metal powder)

Demarcation from other Amber List wastes or unlisted waste (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, slags, press cake, filter cake (metal hydroxide) containing rhenium – unlisted waste

Gallium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid; in metallic non-dispersible form
Gallium has a melting point of 29.76 °C and fuses at tepid temperatures

Other designations:
Waste and scrap of gallium (Ga); "Galinstan" waste (=alloy of gallium, indium and tin)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Metallic gallium waste (= non-toxic substitute for mercury in thermometers, heating baths) and gallium alloy waste

Demarcation from other, similar Green List wastes:
- There are no relevant similar entries on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Gallium solder (gallium arsenide amalgams) – see **A1010** or **A1030**
- Gallium arsenide in the form of disassembled infrared applications (electronics industry) or wastes of wafers (= thin slices of metal plates/discs of different size, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) made of Gallium arsenide (Gallium arsenide is classified as toxic) – unlisted waste

Thorium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in non-dispersible form

Other designations: wastes and scrap of thorium **(Th)**

Thorium as a pure metal is a radioactive element and is subject to the relevant radiation protection provisions!

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Alloy waste with low quantities of thorium (e.g. jet engine waste)
- Thorium-copper-silver alloy waste (electrical contacts)

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Thorium compounds that accumulate in the form of chemical waste – see **A4140**, otherwise unlisted waste
- Thorium-containing waste from electron tubes and mercury lamps – see **A2010** or **A1030**

Note: Thorium, in the form of oxides and dicarbides, in combination with those of uranium, is used as a fertile material in high-temperature reactors. Together with beryllium targets, thorium is used as a neutron source – observe the relevant radiation protection provisions!

Scrap of rare earth metals

Designation: **Green List B1010**

Metal and metal alloy wastes in metallic, non-dispersible form:
Scrap of rare earth metals

Physical characteristics: solid, in metallic non-dispersible form

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**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

Demarcation from other, similar Green List wastes:
- Spent catalysts excluding liquids used as catalysts, containing any of: Lanthanides (rare earth metals):
  lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (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, enamels and varnishes – see **A4070**
- Slags, dust, ash that contain rare earth metals– unlisted waste
- Fly ash and dust that contain rare earth metals – see **A4100**

Note: Promethium is a radioactive rare earth metal, it is important to observe the relevant radiation protection provisions!

Chromium scrap

Designation: **Green List B1010**

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

Physical characteristics: solid, in metallic non-dispersible form

Other designations: wastes and scrap of chromium (**Cr**); chromium shavings

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
Chrome-plated metal waste (chrome-plating = galvanic application of wear- and rust-resistant coating up to 500 µm thick directly to steel, cast iron, copper or chrome-plated aluminium cylinders) in engine construction and rustproof and heat-resistant chromium alloys

Demarcation from other, similar Green List wastes:
- Chrome-plated plastic parts– see category: plastic waste **B3010**
- Chromium catalysts (cleaned) – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Furnace linings for metallurgical and non-metallurgical processes (magnesite chromium or Cr(III)- and chromate-containing furnace linings) with hazardous characteristics – 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 pollution control devices for cleaning of industrial off-gases – see **A4100**
- Chromium-containing galvanic sludge – see **A1050**
- Chromium catalysts (contaminated) – see **A2030**

Antimony scrap

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

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

Other designations: waste and scrap of antimony (**Sb**), lead-antimony alloys: antimonial lead, type metal, Babbitt metal; tin-antimony alloys: Britannia metal, lead-antimony solder waste in metallic form

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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

Alloys:
- Lead-antimony alloys: antimonial lead, type metal, Babbitt metal
- Tin-antimony alloys: Britannia metal, Babbitt metal
- Lead-antimony solder waste (the oxide content must not exceed 0.5%, since lead compounds are teratogenic)

Demarcation from other, similar Green List wastes:
- Antimony alloys should be classified according to the main alloy component (e.g. antimony-copper) – see **B1010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Antimony compounds (salts etc.) that accumulate in the form of chemicals – see **A4140**, otherwise see **A1020**
- Dispersible metallic waste containing antimony such as antimony-containing ash, sludge and dust – see **A1020**
- Antimony-containing galvanic sludge – see **A1050**
- Antimony-containing filtration dust, ash – see **A4100**
- Waste of antimony-containing pigments - see **A4070**
- Lead-antimony alloys from batteries and accumulators - see **A1160** and for a mixture of lead-acid batteries with other batteries – see **A1170**
- Electrodes from lead-acid batteries– see **A1010** or **A1020**

Beryllium scrap

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

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

Other designations: waste and scrap of beryllium (**Be**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
Metallic beryllium scrap and waste of beryllium-containing alloys in bulk finished form

Demarcation from other, similar Green List wastes:
- Beryllium alloy waste should be classified according to the main alloy component (e.g. beryllium copper of 90% and more copper) – see **B1010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Beryllium and beryllium oxide waste in dispersible form (e.g. beryllium metal powder and dust or beryllium-containing ash, sludge) – see **A1010** and **A1020**
- Beryllium-containing filtration dust – see **A4100**

Note: Beryllium and its compounds are classified as carcinogenic (the limit value for beryllium content is 0.1% max.). Beryllium scrap should therefore contain practically no oxidic or dispersible content. Beryllium-containing vapours and aerosols (atomised) are harmful to the lungs.

Cadmium scrap

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

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

Other designations: waste and scrap of cadmium (**Cd**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Lumpy solid cadmium and cadmium alloy waste

Note: The cadmium oxide content (= dispersible portion) must not exceed 0.1% (cadmium oxide is considered carcinogenic; limit value for carcinogen: 0.1%).

Demarcation from other, similar Green List wastes:
- Cadmium-plated scrap, cadmium alloys (Babbitt metals and solder) shall be classified under the entry of the type of scrap that constitutes the main component– see **B1010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Cadmium-containing galvanic sludge – see **A1050**
- Cadmium hydroxide sludge, 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 to the extent dispersible **A1020**
- Electronic scrap with Cadmium accumulators as the main component (e.g. accumulator-powered drills) – **A1180** (or possibly unlisted waste)
- All cadmium-containing catalysts (cleaned or contaminated) – see **A2030**

Lead scrap

Designation: **Green List B1020**
Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.):
Lead scrap (but excluding lead-acid batteries)

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

Other designations: waste and scrap of lead (**Pb**), lead solder/ tin solder, type metal, Pb scrap, Pb waste (metallic)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Lead pipes, cast parts, tubes (pure), foils, sheets
- Lead alloys (lead solder*, tin-lead alloys)
- Type metal
- Production of spoiled castings of lead grits
- Metallic soldering tin (more lead than tin in the alloy) with negligible lead oxide contamination (below 0.5%)

*Note: Slight contamination with lead oxide or lead compounds is permissible (cf. lead – teratogenic – from 0.5% lead compounds – hazardous waste).

Demarcation from other, similar Green List wastes:
- There is no similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Lead-acid batteries, whole or crushed; electrodes (lead grits) of lead acid batteries (even if the electrodes had been cleaned, as the permanent lower deviation from the limit value of 0,5 % (teratogenic) for lead sulphate and lead oxide cannot be guaranteed)– see **A1160**
- Lead-acid batteries mixed with other batteries – see **A1170**
- Lead compounds and 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 0.5% – see **A1020**

Selenium scrap

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

Physical characteristics: solid, in lumps, in metallic non-dispersible form

Other designations: waste and scrap of selenium **(Se)**

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Scrap selenium and selenium alloys

Demarcation from other, similar Green List wastes:
- Dispersible selenium waste in elementary metallic form – see **B1060**

Demarcation from other Amber List wastes or unlisted waste (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 accumulate 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 flue dust from exhaust gas purification – 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 exchangeable in order to change toner. If the photoconductive layer is made of selenium, selenium-tellurium, selenium-arsenic or cadmium sulphide, such cartridges are classified as hazardous waste – see **A1180**

Tellurium scrap

Designation: **Green List B1020**

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

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

Other designations: wastes and scrap of tellurium (**Te**)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

Detailed description:
- Waste tellurium and alloy waste

Demarcation from other, similar Green List wastes:
- Dispersible tellurium waste in elementary metallic form – see **B1060**
- Waste tellurium-hardened lead (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 other Amber List wastes or unlisted waste (notification):
- Tellurium-containing dust, sludge and ash with hazardous characteristics – see **A1020**
- Tellurium-containing flue dust, ash – see **A4100** or **A1020**
- Mercury-zinc and cadmium-telluride in infrared detectors and electronic circuit components – unlisted waste or maybe **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 higher than 0.1%)

Refractory metals

Designation: **Green List B1030**

Refractory metals containing residues (high melting point metals)

Physical characteristics: solid, in non-dispersible form

Other designations: refractory metal scrap; metallic wastes and scrap:
titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), rhenium (Re)

EWL designation:
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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**, **titanium, tantalum, molybdenum** and **niobium**.
Refractory metals are used in furnace construction (e.g. for protective atmosphere furnaces or vacuum furnaces) to make resistance heating or induction heating elements. Molybdenum is also used for smelting electrodes, nozzles, and the manufacture of piping.

Demarcation from other, 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**
- Linings and refractories from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics (e.g. linings and refractory from steel processing) – see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Dross, slags, ash, -press cake, filter cake (metal hydroxide) containing refractory metals and refractory metal compounds – unlisted waste
- Refractory metal-containing filter dust or filter ash from flue gas cleaning – see **A4100**
- Refractory metal-containing furnace linings from metallurgical and non-metallurgical processes with hazardous characteristics – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Refractory metal-containing galvanic sludge – see **A1050**
- Catalysts containing refractory metals (contaminated) – see **A2030**

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

Physical characteristics: solid, in metallic dispersible form

Other designations:
Refractory metal scrap or metallic waste and scrap:
titanium (**Ti**), niobium (**Nb)**, tantalum (**Ta**), molybdenum (**Mo**), tungsten (**W**), rhenium (**Re**).

EWL designation:
10 08 04 particulates and dust
12 01 03 non-ferrous metal filings and turning shavings**
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

** due to a missing appropriate EWL code this code shall also be used for the description of massive wastes from stamping, as the material quality is identical

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**.**

Demarcation from other, similar Green List wastes:
- Refractory metals residues (=metals with a high melting point) 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**
- Linings and refractories from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics – ceramic wastes – see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Dross, slag, ash, press cake, filter cake (metal hydroxide) containing refractory metals and metal compounds – unlisted waste
- Refractory metal-containing filter dust or filter ash from flue 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**

Power plant scrap

Designation: **Green List B1040**

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

Physical characteristics: solid

Other designations: scrap from power plant installations; power plant scrap; turbine scrap

EWL designation:

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 those mentioned in 20 01 21*, 20 01 23* and 20 01 35*

20 01 40 metals

Detailed description:
Waste from power plant installations, such as waste turbines, pumps, generators, motors. Regarding any contamination, the limit values of current version of the List of Wastes Ordinance must be respected.
The PCB/PCT content (polychlorinated biphenyl/polychlorinated terphenyl) must not exceed 30 mg/kg dry mass relative to the fuel (oil) (to be determined according to EN 12766-1 and EN 12766-2). The residual mineral oil content must not exceed **2%.** Please consider more stringent limit values in other countries.

Demarcation from other, similar Green List wastes:

- Electrical assemblies consisting only of metal or alloys – see **GC 010**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Power plant installations whose PCB/PCT content relative to the fuel (oil) exceeds 30 mg/kg (to be determined according to EN 12766-1 and EN 12766-2) – see **A1180**
- Complete devices with environmentally-relevant contents of hazardous substances (e.g. components containing mineral oil) – see **A1180**
- Full or drained PCB-transformers – see **A3180** or **A1180**
- Motors with PCB-starting capacitors or electrolyte capacitors – see **A1180**

Non-ferrous metals, mixed

Designation: **Green List B1050**

Mixed non-ferrous metals, heavy fraction scrap, not containing Annex I[1] materials in concentrations sufficient to exhibit Annex III[1] characteristics

Physical characteristics: solid, in metallic, non-dispersible form

Other designations: heavy fraction shredder scrap, non-ferrous metal shredder scrap, heavy fraction of non-ferrous metal

EWL designation:
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

Detailed description:
The heavy fraction 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 tires, plastic waste, left-over fabric/textile wastes, glass, gravel and soil.

To be classifiable in the Green List, the waste must not have a high percentage of lead compounds (limit value: 0.5% - teratogenic), PCB (30 mg/kg) or hydrocarbons (e.g. no more than 2% petroleum) (see Green List waste classification criteria).

The **metal content** must be **at least 90%**, so that it can be assumed that the majority of the waste is recyclable and that environmentally sound recovery is possible, especially taking into account the treatment method for the light fraction of the shredder scrap (also consider shipments of wastes listed on Annex III to non-OECD countries).

This means that non-ferrous metal scrap may contain **at maximum 10%** of non-hazardous, non-metallic impurities which do not impair the recovery operation.

Demarcation from other, similar Green List wastes:

- Homogeneous scrap – see the specific entries **B1010** and **B1020**

<u>Annex IIIA – see also the explanations on the following entries:</u>

- Mixtures of waste classified under Basel entries B1010 (ferrous and non-ferrous metals) and B1050 (mixed non-ferrous metal, heavy fraction scrap)
- Mixtures of waste classified under Basel entries B1010 (ferrous and non-ferrous metal wastes) and B1070 (wastes of copper and copper alloys in dispersible form)

Demarcation from other Amber List wastes or unlisted waste (notification):

- "Flavoured shredder wastes", which mainly consist of the light fraction from shredding (fluff) with low metal content– see **A3120** Fluff (or possibly unlisted waste)
- 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 in list A (Amber List of waste)
- Light fraction from shredding (fluff) – see **A3120**

Selenium and tellurium (dispersible)

Designation: **Green List B1060**

Waste selenium and tellurium in metallic elemental form including powder

Physical characteristics: solid, dispersible, in metallic elemental form

Other designations: selenium and tellurium powder (metallic); powder selenium **(Se)** or tellurium **(Te)**

EWL designation:
10 08 04 particulates and dust
12 01 04 non-ferrous metal dust and particles
19 10 06 other fractions other than those mentioned in 19 10 05* (Note: limited to a metallic fraction with selenium- or tellurium-containing wastes in metallic dispersible form)
19 12 13 non-ferrous metals

Detailed description:
- Metallic selenium and tellurium dust

Demarcation from other, 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 of tellurium-containing steel, cast iron, copper – classified according to the main component of the relevant metal – see **B1010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Selenium-containing pesticides (sometimes banned) – see **A4030**
- Tellurium-containing anode sludge is the main source of industrial tellurium production – see **A1020** (if lead compounds are present in the anode sludge) or unlisted waste (for example, if the nickel content is higher than 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 AD 090**
- Toxic selenium compounds – see **A1020**
- Selenium compounds that accumulate 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**

Copper (dispersible)

Designation: **Green List B1070**

Waste of copper and copper alloys in dispersible form, unless they contain Annex I[1] constituents to an extent that they exhibit Annex III[1]characteristics

Physical characteristics: solid, highly viscous, dispersible

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

EWL designation:
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*

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

Demarcation from other, similar Green List wastes:
- Copper sintering materials (copper oxide mill-scale), provided they have low lead oxide content (0.5% limit value) and are free of other contamination– see **B1240**

Demarcation from other Amber List wastes or unlisted waste (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**

Zinc ash and residues

Designation: **Green List B1080**

Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I[1] constituents in concentration such as to exhibit Annex III[1] characteristics or exhibiting hazard characteristic H4.3

Physical characteristics: solid, also in dispersible form

Other designations: zinc alloy ash, fine zinc ash, zinc oxide waste

EWL designation:
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

Detailed description:
- Zinc ash (even dispersible, i.e. with a particle size under 100 micrometers), provided that it has no hazardous characteristics (heavy metals such as cadmium, lead – see the respective limit values to be satisfied with respect to hazardous characteristics under the chemicals laws) and does not exhibit hazardous property H 4.3.

- Zinc oxide residues/ash from the zinc spray process (zincing of steel wire), which mainly consist of zinc oxide, small amounts of iron and zinc on the condition that this residues do not exhibit hazardous characteristics (e.g. due to the presence of metals and heavy metals such as As, Cd, Ni, Pb)

Demarcation from other, similar Green List wastes:
- Zinc dross, zinc-containing top slag– see **B1100**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Ash with increased heavy metal content (e.g. Cd, Pb, possibly Ni – cf. the required limit values for hazardous characteristics under the chemicals laws) and/or hazardous property H 4.3 and ash that does not have the minimum required zinc content – see **A1080** or unlisted waste

Batteries

Designation: **Green List B1090**

Notification is required for all types of batteries!
The Green List entry "Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury" is not applicable in case of shipments from and to Austria, as according to scientific knowledge presently all batteries placed on the market exhibit at least one hazard characteristic (e.g. nickel compounds, organic solvents, acids and basic solutions in electrolytes), even if they do not contain any (remarkable) amounts of lead, cadmium or mercury.

In the Austrian Waste List Ordinance all types of batteries are classified as hazardous waste ex lege which cannot be de-classified as non-hazardous waste. Pursuant to Art 3 Para 3 of the EC-Waste Shipment Regulation No. 1013/2006, 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 Art 3 Para 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 evaluation by the Commission is carried out within the scope of the revision of the European Waste List.

Physical characteristics: solid

Other designations: scrap batteries; battery scrap; sorted scrap batteries; alkali-manganese, zinc-carbon, nickel-metal hydride; lithium battery waste; old nickel-iron accumulators, mixed scrap batteries

EWL designation:
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*

Detailed description:

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

In the case of transboundary shipment of batteries, only entry **A1170** should be used.

Demarcation from other, similar Green List wastes:
- There is no relevant similar entry on the Green List.

Note: The Green List entry **B4030** "Used single-use cameras, with batteries not included on list A" is **not applicable** – see **A1180** (or unlisted waste) – notification.

Demarcation from other Amber List wastes or unlisted waste (notification):
- All waste batteries except for lead-acid batteries – see **A1170**
- Waste lead-acid batteries, whole or crushed– see **A1160**
- Used single-use cameras with all types of batteries – see **A1180** (maybe unlisted waste)

Hard zinc spelter

Designation: **Green List B1100**

Metal-bearing wastes arising from melting, smelting and refining of metals:
Hard zinc spelter

Physical characteristics: solid

Other designations: hard zinc waste; hard zinc from hot-dip galvanising

EWL designation:
11 05 01 hard zinc

Detailed description:
Hard zinc is a zinc-iron alloy with approx. 90–95% zinc (spelter) that originates during hot-dip galvanising.

Demarcation from other, 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 H 4.3 and do not contain components mentioned in Annex I[1] (especially lead, cadmium) in such concentrations that they exhibit one of the characteristics defined in Annex III[1]– see **B1080**
- Zinc dross/skimmings, zinc-containing top slag – see **B1100**

Note: Zinc skimmings with a share of metallic zinc of less than **45%** (in **single batches***:* lowest admissible limit: **40,5%**) require notification and approval in case of transboundary shipment.

Demarcation from other Amber List wastes or unlisted waste (notification):
- Hard zinc waste with a hazardous property – see **A1080** in case of higher content of lead and/or cadmium or unlisted waste

Zinc slag/dross

Designation: **Green List B1100**

Metal-bearing wastes arising from melting, smelting and refining of metals:
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 galvanisers slab zinc dross (batch) (>92% Zn)**
- **zinc skimmings**

Physical characteristics: solid

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 cast dross

EWL designation:
10 05 11 dross and skimmings other than those mentioned in 10 05 10*
10 05 01 slags from primary and secondary production

Detailed description:
Galvanising slab zinc top dross (>90% Zn)
- Zinc top dross from planetary rolling mill process, skimmed from the top of continual galvanising in regular slabs, free of ashes and powders, not burned products, approximately 10% fragments
- Zinc die cast dross from continual slab galvanising, free from slag, approximately 10% fragments

Galvanising slab bottom dross (>92% Zn)
- Zinc bottom dross from planetary rolling mill process, skimmed from the bottom of continual galvanising in regular slabs, free of ashes and powders, approximately 10% fragments
- Zinc die cast dross from continual slab galvanising, in slab form, free from slag, approximately 10% fragments

Zinc die cast dross (>85% Zn)
- Zinc die cast 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, approx. 10% fragments

Zinc skimmings
- Zinc skimmings must have a **metallic zinc content** of at least **45%** (the tolerated deviation is 10% of this limit), which means that **single batches** containing a **minimum content of 40,5%** of metallic zinc will be considered Green Listed waste. The cadmium content must by no means exceed 0.1% (cadmium oxide is considered to be a category-2 carcinogen; limit value for classification as carcinogenic: 0.1%). The limit value of 0.1% is applicable also to nickel compounds. The zink skimmings must not contain more than 0.5% of lead compounds (limit value for teratogenic lead compounds) and must neither be inflammable nor release flammable gases in hazardous quantities when exposed to water (criterion H 4.3).

Demarcation from other, similar Green List wastes:

- Zinc ash and residues including zinc alloy residues in dispersible form that have no hazardous characteristics – see **B1080**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Zinc dross, 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 are classifiable as hazardous – see **A1080** or in the case of Criterion H 4.3 or higher contents of other heavy metals – unlisted waste
- Zinc-containing fine dust– see **A4100**
- So-called “zinc foam” (slags/dross/ashes from wet galvanising), containing ammonium chloride (characterised by smell of ammonia)– see **A1080** (in case of higher lead or cadmium content) or unlisted waste
- Dross, slag with **less than 45%** 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

Aluminium skimmings

Designation: **Green List B1100**

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

Physical characteristics: solid

Other designations: aluminium skimmings, (**Al**) skimmings, aluminium skimmings except salt slag; aluminium skimmings; metal-rich aluminium dross

EWL designation:
10 03 16 Skimmings other than those mentioned in 10 03 15* (thermal aluminium metallurgy)

Detailed description:
Aluminium skimmings, insofar as they have no hazardous characteristics and contain at least **45%** metallic aluminium (in **single batches**: lowest admissible **limit: 40,5%**).

Note: Black aluminium dross from secondary melting (thermal aluminium metallurgy) and aluminium scrum/dross that is flammable or releases flammable gases in hazardous quantities upon contact with water is classifiable as hazardous waste under the European Waste Catalogue. The relevant hazard criteria are the release of flammable gases in contact with water (limit value of hazardous property H 4.3: release of more than 1 litre of hydrogen/kg/h) or inflammable characteristics.

Aluminium skimmings (or skims) must contain **at least 45% metallic aluminium** (the tolerated deviation is 10% of this limit), which means that **single batches** containing a **minimum content of 40,5%** of metallic aluminium will be considered Green Listed waste on the condition that they do not exhibit the hazard criterion H 4.3.

If aluminium skimmings containing at least 45% of aluminium (or respectively 40,5% in single batches) meet the criterion H4.3, they are subject to the notification procedure.

Demarcation from other, similar Green List wastes:
- Alumina abrasives (to the extent not contaminated with hazardous substances) – see **B2040** Carborundum (= corundum, silicon carbide, boron carbide, aluminium oxide)

- 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**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Aluminium skimmings and dross that meet the classification criteria: inflammable or emit inflammable gases as defined by the chemicals laws or having a metallic aluminium content of less than 45% by mass (or respectively less than 40.5% in single batches) – unlisted waste
- Ball-milled dust – unlisted waste
- Fine 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

Refractory linings

Designation: **Green List B1100**

Wastes of refractory linings, including crucibles, originating from copper smelting

Physical characteristics: solid

Other designations: refractory materials from copper smelting; crucible fragments from copper (Cu) smelting

EWL designation:
16 11 04 other linings and refractories from metallurgical processes other than those mentioned in 16 11 03*

Detailed description:
Classification under the Green List entry is possibly only for non-hazardous waste refractory linings, including crucibles, from copper smelting. Analyses must be performed to determine whether it is non-hazardous waste.

Demarcation from other, similar Green List wastes:
- Linings and refractories from metallurgical and non-metallurgical processes without hazardous characteristics (e.g. linings and refractory from steel processing) –ceramic wastes - see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (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 List of waste)
- Furnace linings from non-metallurgical processes with hazardous characteristics – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Contaminated crucibles from the smelting of copper that have a hazardous property – unlisted waste or listed according to the contaminant in list A (Amber List of waste)
- Crucible linings from aluminium smelting containing inorganic cyanide– see **A4050**
- Storage bricks from the electric night storage heating (often containing chromium VI compounds) – see **A1040** (Cr VI)

Note: After destruction of the cyanide, crucible linings from aluminium smelting should be classified under entry **AB 120** (Amber List of waste), since they contain inorganic fluoride compounds, excluding calcium fluoride.

Tantalum bearing 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

Physical characteristics: solid

Other designations:
tantalum-bearing tin slags; non-ferrous metal slag (tantalum-bearing)

EWL designation:
10 08 09 other slags (from other thermal non-ferrous metallurgy)

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 other, 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 (tantalum) – see **B1030**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Tantalum-containing tin slags classifiable as hazardous – unlisted waste or listed according to the contaminant in list A (Amber List of waste)
- Tantalum catalysts, contaminated – see **A2030**

Waste cables

Designation: **Green List B1115**

Waste metal cables coated or insulated with plastics, not included in list A1190, excluding those destined for Annex IVA[1] operations (= disposal operations) or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning

Physical characteristics: solid

Other designations: cable waste, plastic cable waste

EWL designation:
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*

Detailed description:
- Cable waste from the production of new cables
- Cable waste of known origin, which is known not to be contaminated with PCB, oils, etc.

Demarcation from other, similar Green List wastes:
- Non-hazardous electronic scrap mixed with cables– see **GC 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Cable of unknown origin, e.g. old PVC-cables containing PCB in the cable sheathing or cables with oil-permeated paper insulator coatings – see **A1190**
- Underground cables, cables contaminated or filled with tar, PCB, petroleum jelly or oil – see **A1190**

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

Physical characteristics: solid (highly viscous/pasty)

Other designations:
Spent catalysts or waste catalysts containing the following transition metals: scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum, tantalum, and rhenium.

Spent catalysts containing lanthanides (rare earth metals): lanthanum, praseodymium, samarium, gadolinium, dysprosium, erbium, ytterbium, cerium, neodymium, europium, Terbium, holmium, thulium, lutetium

EWL designation:

16 08 02*	spent catalysts containing dangerous transition metals** or dangerous transition metal compounds
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified

**These metals and their compounds are considered dangerous 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.

Note: The European Waste Catalogue has no specific entry for catalysts that contain lanthanides (rare earth metals), so such catalysts are classified under EWL Code 16 08 03.

Detailed description:

To the extent that catalysts are not classifiable under the Amber List of waste 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 Waste List, 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.).

Examples:
- 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 must by no means exceed 2%; regarding other hazardous contents such as PAH, etc., the limit values of the List of Wastes Ordinance as amended are applicable)

Demarcation from other, similar Green List wastes:
- Cleaned, spent precious-metal-bearing catalysts – see **B1130**
- Spent fluid catalytic cracking catalysts (e.g. aluminium oxide, zeolites) – see **GC 050**

Demarcation from other Amber List wastes or unlisted waste (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 List of waste)
- 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**

Catalysts (precious metals)

Designation: **Green List B1130**

Cleaned spent precious-metal-bearing catalysts

Physical characteristics: solid, highly viscous (pasty)

Other designations: precious metal catalyst waste

EWL designation:
16 08 01 spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07*)

Detailed description:

To the extent that catalysts are not classifiable under the Amber List of waste 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 of the catalyst

- Automotive catalytic converters
- 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)

Demarcation from other, 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 **GC 050**
- Cleaned used transition metal-containing or rare earth metal-containing catalysts – see **B1120**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Liquids that were used as catalysts – see **A2030** or more specific entry for the liquids in list A (Amber List of waste)
- 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 [PAHs]) – see **A2030**
- Spent transition metal-containing or rare earth metal-containing catalysts with hazardous contamination – see **A2030**

Precious metal-bearing residues (solid)

Designation: **Green List B1140**

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

Physical characteristics: solid

Other designations: solid precious metal residues containing traces of inorganic cyanide

EWL designation:
01 03 06 tailings other than those mentioned in 01 03 04* and 01 03 05*
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*

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 other, 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 other Amber List wastes or unlisted waste (notification):
- Precious metal residues with higher quantities of cyanide – 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 List of waste)
- 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**

Precious metals (dispersible)

Designation: **Green List B1150**

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

Physical characteristics: solid**-**highly viscous**;** in dispersible, non-liquid form

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**).

EWL designation:
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

Detailed description:
- 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

Note: 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 other, similar Green List wastes:
- Precious metal ash from the incineration of printed circuit boards, without hazardous characteristics – see **B1160**
- Precious metal-bearing residues in solid form which contain traces of inorganic cyanide– see **B1140**
- Slags from precious metal recycling, without hazardous components – see **GB 040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Amalgam waste and mercury waste – 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 such as hazardous ash and dross containing precious metals – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Precious metal residues containing higher quantities of cyanide - see **A4050**
- Photographic and fixing baths– see **AD 090**
- Slags from precious metal recycling with hazardous characteristics – unlisted waste
- Liquids containing precious metal salts, e.g. silver nitrate (chemicals) – see **A4140**
- Filtration dust with hazardous characteristics that contain traces of precious metals – see **A4100** or **A1100**, to the extent that they come from copper smelting

Precious-metal ash (printed circuit boards)

Designation: **Green List B1160**

Precious-metal ash from the incineration of printed circuit boards

Physical characteristics: solid

Other designations: ash containing precious metals from the incineration of printed circuit boards; printed circuit board ash (containing precious metals)

EWL designation:
10 07 04 other particulates and dust (*silver, gold and platinum thermal metallurgy)*

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 other, similar Green List wastes:

- Precious metals 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 other Amber List wastes or unlisted waste (notification):

- Precious-metal ash from 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**

Precious-metal ash (film)

Designation: **Green List B1170**

Precious-metal ash from the incineration of photographic film

Physical characteristics: solid

Other designations: photographic film ash (containing precious metals)

EWL designation:
09 01 99 wastes not otherwise specified
10 07 04 other particulates and dust

Detailed description:
This is silver-containing ash from the incineration of photographic film.

Demarcation from other, similar Green List wastes:
- Waste photographic film containing silver halides and metallic silver – see **B1180**
- Precious-metal ash from the incineration of printed circuit boards (without hazardous characteristics) – see **B1160**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Precious-metal ash from incineration of printed circuit boards, with hazardous characteristics /contamination – see **A1150**

Film (silver)

Designation: **Green List B1180**

Waste photographic film containing silver halides and metallic silver

Physical characteristics: solid

Other designations: film waste, silver-containing **(**= **Ag**-containing**)**

EWL designation:
09 01 07 photographic film and paper containing silver or silver compounds

Detailed description:
In the case photographic film containing silver halide or metallic silver, both the plastic layer and silver can be reclaimed.

Demarcation from other, similar Green List wastes:
- Waste photographic paper containing silver halides and metallic silver– see **B1190**
- Precious-metal ash from the incineration of photographic film – see **B1170**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Photographic and fixing baths– see **AD 090**
- Liquids containing precious metal salts e.g. silver nitrate (chemicals) – see **A4140**

Waste photographic paper (silver)

Designation: **Green List B1190**

Waste photographic paper containing silver halides and metallic silver

Physical characteristics: solid

Other designations: silver-containing or (Ag-containing) waste photographic paper

EWL designation:
09 01 07 photographic film and paper containing silver or silver compounds

Detailed description:
- photographic paper containing silver halides and metallic silver

Demarcation from other, 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 baths) – see **B1150**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Photographic and fixing chemicals – see **AD 090**
- Liquids containing precious metal salts e.g. silver nitrate (chemicals) – see **A4140**

Granulated slag (manufacture of iron and steel)

Designation: **Green List B1200**

Granulated slag arising from the manufacture of iron and steel

Physical characteristics: solid

Other designations: iron slag, granulated; "blast-furnace slag", slag sand

EWL designation:
Not directly classifiable (product)

Detailed description:
Granulated slag from the production of iron and steel (non-hazardous waste) is considered to be a **product** in Austria and in many OECD-Member Countries to the extent that it is made according to national or international standards through process control designed for a specific application. The status "product/waste" must be checked in the importing country (maybe also in the transit country) in case of transboundary shipment out of Austria, especially in the light of Art. 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 along the Annex VII form; a recovery contract shall be effective when the shipment starts).

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.

National and international standards stipulate the required chemical and physical characteristics and quality monitoring procedure for of ground granulated blast-furnace slag.

Examples of relevant specifications and standards
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 slag products must comply with the parameters agreed to 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 Blast-cleaning abrasives made from iron furnace slag

Demarcation from other, similar Green List wastes:
- Slag arising from manufacture iron and steel including slag as a source of TiO_2 and vanadium – see **B1210**

Demarcation from other Amber List wastes or unlisted waste (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 **AA 010**

Slag arising from the manufacture of iron and steel

Designation: **Green List B1210**

Slag arising from the manufacture of iron and steel including slag as a source of TiO_2 and vanadium

Physical characteristics: solid

Other designations: iron- and steelworks slag; iron and steelworks slag for titanium dioxide or vanadium production;

EWL designation:
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) - *in special cases*

Detailed description:
Slags, 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 they have no hazardous characteristics (appropriate proof required)
- Converter slag (AOD–converter; = Argon oxygen decarburization-converter) and electric arc furnace slag (EAF-slag) from the manufacture of stainless steel and other high grade alloys on the condition that they do not exhibit hazardous characteristics and are destined (e.g. for the reclamation of metals and recovery of the resulting mineral fraction)
- Cupola furnace slag resulting from melting of iron, steal and malleable iron

Examples of relevant specifications and standards:
EN 197-1 Cement: The delivered slag products must comply with the parameters agreed to with the cement industry.

EN ISO 13242 construction materials standard – in case of application as construction material both, the total pollutants content and the leachate referring to the relevant requirements according to the state of the art (Federal Waste Management Plan 2006 –Chapter 5.2.14.1) and the Landfills Ordinance Fed Law Gaz II No 39/2008 shall be taken into consideration

EN ISO 11126-6 Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 6 Blast-cleaning abrasives made from iron furnace slag

CE designation according to: EN 12620 Aggregates for concrete
Austrian standard ÖNORM B 3313 Blast furnace slag, generally
Austrian standard ÖNORM B 3314 Foamed blast furnace slag, blast furnace grit, porous;
Austrian standard ÖNORM B 3317 Aggregates for blast-furnace slag for concrete

Requirements for shipments to Switzerland

In Switzerland (an OECD-Member Country) the following provisional reference values have been established for the evaluation of ecologically-compatible (non-hazardous) slag arising from the manufacture of iron and steel that may be imported without notification from other OECD Member Countries for recovery as building materials following the Green List procedure

Parameter	Reference value
antimony	5 mg/kg
arsenic	30 mg/kg
lead	75 mg/kg
cadmium	1 mg/kg
chromium (total)	200 mg/kg
chromium(VI) (soluble)	2 mg/kg
copper	200 mg/kg
nickel	200 mg/kg
mercury	0,5 mg/kg
thallium	2 mg/kg
zinc	400 mg/kg
Tin	30 mg/kg
barium	1000 mg /kg
beryllium	10 mg /kg
cobalt	100 mg /kg
selenium	5 mg /kg
vanadium	300 mg/kg

Demarcation from other, similar Green List wastes:

- Granulated slag arising from the manufacture of iron and steel (non-hazardous waste) – see **B1200**

Note: 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 other Amber List wastes or unlisted waste (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 **AA 010**

Iron-containing slag (zinc production)

Waste 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

Physical characteristics: solid

Other designations: chemically stabilised slag from zinc production with high iron content; “iron silicate” slag

EWL designation:
10 05 01 slags (primary and secondary smelting)

Detailed description:
- Chemically stabilised slag from zinc production with high iron content (> 20%) , processed according to industrial specifications (e.g. DIN 4301) mainly for construction. Analysis is necessary to evaluate the composition.

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Used blasting grit – see **AB 130**
- Iron-containing slags (from zinc production) with hazardous characteristics – unlisted waste or listed according to the contaminants in list A (Amber List of waste)

Mill scaling (manufacture of iron and steel)

Designation: **Green List B1230**

Mill scaling arising from the manufacture of iron and steel

Physical characteristics: solid

Other designations: iron scaling; forge scaling; scaling, Fe forge scaling*;*

EWL designation:
10 02 10 mill scales

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 2%** (note possibly more stringent limit values in other countries) and no other hazard criterion (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.

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Mill cinder (iron scale or forge scaling) that is contaminated with hazardous substances (e.g. higher quantities of mineral oil) or has higher content of heavy metals – see **AA 010**

Copper oxide mill-scale

Designation:	**Green List B1240**
Copper oxide mill-scale	

Physical characteristics: solid

Other designations: copper scale material; copper scaling; mixture of copper and copper oxide; “copper forge scaling”

EWL designation:
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

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, and lesser quantities of other oxides (such as aluminium, iron, and zinc oxide) and traces of oil and water.

Copper oxide residues or copper cinder (copper scale) from the milling of copper at red heat may be classified in the Green List to the extent that they have no hazardous characteristics. This means that the waste must not contain high amounts of heavy metals, beryllium oxide or oil contamination (**limit value: at max 2% hydrocarbons**); note more stringent limit values in other countries. Analysis is required to evaluate whether it is non-hazardous.

Demarcation from other, similar Green List wastes:
- Waste of copper and copper alloys in dispersible form, unless they contain Annex I[1] constituents to an extent that they exhibit Annex III[1] characteristics – see **B1070**

Demarcation from other Amber List wastes or unlisted waste (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 refining materials (e.g. with dispersible copper waste with high heavy metal oxide content) and contaminated copper oxide-mill scale (e.g. with high oil content) – unlisted waste or possibly classified according to the relevant contaminant in list A (Amber List of waste)
- 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

Waste end-of-life motor vehicles

Designation: **Green List B1250**

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

Physical characteristics: solid

Other designations: drained waste end-of-life motor vehicles; old cars, scrap motor vehicles, waste end-of-life motor vehicles with hazardous substances removed;

EWL designation:
16 01 06 end-of-life vehicles, containing neither liquids nor other hazardous components
(for car body panels: 16 01 22 components not otherwise specified)

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, Federal Law Gazette II No. 407/2002, as amended:
  - 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.

Note: Waste end-of-life motor 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 (refer to the National Guidelines for differentiation of end-of-life vehicles and used vehicles – waste versus product in the legal part of Chapter 5.3.2.3,B)
In any case used or old vehicles welded up, closed by an insulation foam or cut into pieces are waste!

Demarcation from other, similar Green List wastes:
- Mixed non-ferrous metal, heavy fraction scrap from shredding of waste end-of-life motor vehicles without hazardous contamination (mixed materials) and a **metal content > 90%** – see **B1050**

- 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 – see **GC 030**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Residues from vehicle scrapping (light fraction from shredding, fluff) – see **A3120**
- Mixed non-ferrous metal, heavy fraction scrap from shredding of old vehicles with hazardous contamination such oil, PCBs (mixed materials) or high non-metallic content such as rubber, plastic, textiles (**metal content less than 90%)** – unlisted waste
- End-of-life motor vehicles and old car parts still containing hazardous liquids – unlisted waste
- Scrap car bales (compacted in the scrap baling press) without providing evidence of removal of hazardous substances – unlisted waste

Note: In the case of compacted end-of-life vehicles, environmentally sound recovery of the compacted scrap (without prior disassembly according to the above-mentioned requirements) is made significantly more difficult (steel contamination with non-ferrous heavy metals, resulting air pollution is increased).

B2 Waste containing principally inorganic constituents, which may contain metals or organic materials

Wastes from mining operations

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 those used in foundry operations

Physical characteristics: solid, in non-dispersible form

Other designations:
wastes from mineral excavation

EWL designation:
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 is limited 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*

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 (non-contaminated silica, quartz sand) excluding those used in foundry operations

Demarcation from other, similar Green List wastes:
- Calcium fluoride sludge – see **B2070**
- Bauxite residue (“red mud”), pH moderated to less than 11.5 – see **B2110**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Sands used in foundry operations (foundry sand, core sand) – see **AB 070**
- Quartz sand, graphite waste, waste of slate, mica, waste of leucite, nepheline and nepheline syenite feldspar waste, fluorspar waste with hazardous contamination – unlisted waste or classification according to contaminants in list A (Amber List of waste)
- Used blasting grit, in which case contamination is to be assumed a priori – see **AB 130**
- Contaminated or non-contaminated excavated soil, excavated materials from abandoned contaminated sites, demolition waste or debris - unlisted waste
- Tunnel debris, drilling sludge, other waste from mining operations in dispersible form (such as sludge, dust, etc.) – unlisted waste

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

Glass waste

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

Physical characteristics: solid

Other designations: scrap glass, cullet, colourless glass, coloured glass, glass shards, flat glass, broken bottle glass, broken flat glass

EWL designation:
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

Detailed description:
- Scrap glass, cullet, including waste float glass and automotive glass (laminated glass)

  Note: Bottle glass must not be mixed in with the flat glass or ceramic waste, because otherwise it is impossible to recover.

- Cullet from fluorescent lamps, if the bodies of the tubes are separated from the ends of the tubes (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 (= cleaned screen glass from cathode ray tubes, free from any lead oxide-containing cone glass or funnel glass) after complete separation of the lead oxide-containing components (cf. **Correspondents Guidelines No 7 –** classification of glass wastes from CRT - **ec.europa.eu/environment/waste/shipments/index.htm**).

- Glass packaging wastes (separate collection), free from hazardous contamination; the total content of impurities such as plastics, metals, paper, wood and mineral wastes must not exceed the **guidance value of 8%** in total. Due to the heterogeneous character of the wastes in case of analytical tests a tolerance value of 2% is admissible (this means that the content of impurities may be at maximum **10% in single cases**)

Demarcation from other, similar Green List wastes:
- Fibre glass wastes – see **GE 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- (Physically intact) cathode-ray tubes – see **A2010**
- Glass wastes 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 wastes from CRTs**: **ec.europa.eu/environment/waste/shipments/index.htm**).

- Cleaned glass wastes from monochromatic CRTs (these glass wastes always contain lead oxide) – see **A2010**
- other activated (coated) glass wastes (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 wastes) or maybe **A2010**
- Fluorescent lamps and gas discharge lamps as well as fragments thereof and insufficiently decontaminated glass components from the processing of such lamps – see **A1030** (mercury) or **A2010**
- Lead glass waste, lead glass sludge – see **A1020** (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)

Ceramic wastes (cermets)

Designation: **Green List B2030**

Cermet wastes and scrap (metal ceramic composites)

Physical characteristics: solid

Other designations: cermet wastes and scrap (metal ceramic composites)

EWL designation:
06 03 16 metallic 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)

Detailed description:
Cermet is the designation of 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, and 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 other, similar Green List wastes:
- Waste of refractory linings, including crucibles from the smelting of copper (non contaminated) – see **B1100**
- Refractory metals containing residues (metals with high melting point) – see **B1030**
- Linings and refractories from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics – ceramic wastes – see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Furnace linings and refractories from metallurgical or non-metallurgical processes as well as crucibles with hazardous contamination – unlisted waste

Ceramic based fibres (non-dispersible)

Designation: **Green List B2030**

Ceramic based fibres in non-dispersible form:
Ceramic based fibres not elsewhere specified or included

Physical characteristics: solid

Other designations: rock wool; ceramic wool

EWL designation:
10 12 99 wastes not otherwise specified
17 06 04 insulation materials other than those mentioned in 17 06 01* and 17 06 03*

Detailed description:
ceramic fibres such as rock wool, ceramic wool

Note: Artificially produced ceramic mineral fibres are especially used for thermal insulation because of their high temperature stability. Since 1997, ceramic fibres have been classified as category-2 or 3 carcinogens in the European Union. It has been proven that the artificially produced mineral fibres on the market since the 1990s have no carcinogenic characteristics. They are classified as irritating ("R38"), however, and therefore technically hazardous, but may nevertheless be classified under the Green List (risk-based approach).

Demarcation from other, similar Green List wastes:
- Fibre glass wastes in non-dispersible form – see **GE 020**
- Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use), in non-dispersible form – see **GF 010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Asbestos fibres and modified asbestos fibres – see **A2050**
- Ceramic-based fibres with physico-chemical properties similar to those of asbestos – see **RB 020**
- Ceramic fibres contaminated with hazardous substances – unlisted waste or classified according to the contaminants in list A (Amber List of waste)

Waste gypsum (FGD gypsum)

Waste designation: **Green List B2040**
Other wastes containing principally inorganic constituents:
Partially refined calcium sulphate produced from flue-gas desulphurisation (FGD)

Physical characteristics: solid

Other designations: flue-gas desulphurisation gypsum; FGD gypsum; calcium sulphate or gypsum produced from flue-gas desulphurisation;

EWL designation:
06 06 99 wastes not otherwise specified
10 01 05 calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 02 08 solid wastes from gas treatment other than those mentioned in 10 02 07* (→ *gypsum from the iron and steel industry)*
10 06 99 wastes not otherwise specified *(→ gypsum from copper thermal metallurgy)*

Detailed description:
Flue-gas desulphurisation gypsum (FGD gypsum) and mixtures of gypsum ($CaSO_4$) and calcium sulphite may be used as secondary raw material or substitute for natural gypsum or anhydrite plaster in various areas of the gypsum industry thanks to its chemical and mineralogical composition, to the extent that it meets the quality requirements of the gypsum industry.

The requirements of the gypsum industry concerning the ingredients of FGD gypsum have been taken from the European umbrella organisation Eurogypsum (**www.eurogypsum.org**) and may be used as **reference values**:

Quality parameters	Quality criteria (% by weight)
free moisture	< 10%
$CaSO_4 \times 2H_2O$	> 95% *
Mg-salts, water soluble	< 0.1%
Chloride	< 0,01%
Na-salts water soluble	< 0,06%
$CaSO_3 \times ½ H_2O$	< 0.5%
pH	5 to 9
Colour	White
Odour	Neutral
Toxicity	non-toxic

* The purity of the calcium sulphate may be lowered to at least 80% for certain applications. The only permissible contaminants are inert substances. Colours other than the white colour of the FGD gypsum may be accepted, depending on the application.

Demarcation from other, similar Green List wastes:
- Waste gypsum arising from chemical industry processes without hazardous contamination – see **B2080**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Other sulphate- or sulphite-containing gypsum resulting from cleaning of industrial off-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 desulphurisation (not conforming to specifications) – see **AB 150**

Waste gypsum wallboard or plasterboard

Designation: **Green List B2040**

Other wastes containing principally inorganic constituents:
Waste gypsum wallboard or plasterboard arising from the demolition of buildings

Physical characteristics: solid

Other designations: wastes of gypsum wallboard

EWL designation:
17 08 02 gypsum-based construction materials other than those mentioned in 17 08 01*

Detailed description:
Waste plasterboard, free from hazardous contamination

Demarcation from other, 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 other Amber List wastes or unlisted waste (notification):
- Plasterboard with PCB-containing coatings – see **A3180**
- Gypsum waste arising from the chemical industry with hazardous characteristics – see **A2040**
- Plasterboard wastes with wood-wool building boards (consisting of wood chips, straw and mineral binders, especially cement) as a carrier material – unlisted waste (composite material)

Iron-containing slag (copper production)

Designation: **Green List B2040**

Other wastes containing principally inorganic constituents: Slag from copper production, chemically stabilised, 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

Physical characteristics: solid

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

EWL designation:
10 06 01 slags (primary and secondary smelting)

Detailed description:
Chemically stabilised slag from copper production 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. Analysis is necessary to evaluate the composition.

Demarcation from other, similar Green List wastes:
- Chemically stabilised slag from zinc production having a high iron content (above 20%) processed according to industrial specifications (e.g. DIN 4301), mainly for use in construction – see **B1220**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Used blasting grit – see **AB 130**
- Slags from copper production with hazardous characteristics – unlisted waste or listed according to the contaminants in list A (Amber List of waste)

Sulphur (solid)

Designation: **Green List 2040**

Other wastes containing principally inorganic substances:
Sulphur in solid form

Physical characteristics: solid

Other designations: solid sulphur form; waste sulphur

EWL designation:
05 01 16 sulphur-containing wastes from petroleum desulphurisation (Note: the petroleum content must not exceed 2%)
05 07 02 wastes containing sulphur

Detailed description:
Solid sulphur from natural gas desulphurisation, for example, should be subsumed under this category. The sulphur must not be contaminated, e.g. by hydrocarbons, to such an extent that it constitutes hazardous waste.

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (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 List of waste)
- Sulphide (salts), if chemicals waste – see **A4140**, otherwise unlisted waste
- Sulphuric acid and sulphurous acid – see **A4090**

Limestone (calcium cyanamide production)

Designation: **Green List B2040**

Other wastes containing principally inorganic substances:
Limestone from the production of calcium cyanamide (having a pH less than 9)

Physical characteristics: solid

Other designations: limestone from calcium cyanamide or fertiliser production

EWL designation:
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

Detailed description:
Calcium carbonate (limestone) from the manufacture of calcium cyanamide (pH<9)

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Calcium carbonate from the manufacture of calcium cyanamide with hazardous contamination or having a pH greater than 9 – unlisted waste or listed according to the contaminants in list A (Amber List of waste)

Waste salt

Designation: **Green List B2040**

Other wastes containing principally inorganic substances:
Sodium, potassium, calcium chlorides

Physical characteristics: solid – highly viscous - fluid

Other designations: salt waste; NaCl (sodium chloride) wastes; KCl (potassium chloride) wastes; $CaCl_2$ (calcium chloride) wastes; rock salt waste (sodium chloride with potassium chloride components);

EWL designation:
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*

Detailed description:
- Calcium chloride forms hygroscopic (water-attracting) crystals and is irritating
- Sodium chloride waste and potassium chloride waste

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (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 List of waste)

Carborundum

Designation: **Green List B2040**

Other wastes containing principally inorganic substances: Carborundum (silicon carbide)

Physical characteristics: solid

Other designations: corundum; silicon carbide, boron carbide, aluminium oxide

EWL designation:
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*

Detailed description:
Carborundum is a brand name for the synthetic hard material silicon carbide. The name is a combination of the words “carbon” and “corundum” (a well-known hard material made of aluminium oxide).
Carborundum is used to refer to corundum, silicon carbide, but boron carbide and aluminium oxide may also be included in this category. The solid form of corundum is used as a grinding material industrially and for tool-making (abrasive paper, abrasive cut-off wheels, etc.). The category therefore includes grinding wheel fragments made of carborundum, for example.

Demarcation from other, 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 other Amber List waste or unlisted waste (notification):
- Contaminated grinding material made of carborundum - unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Used blasting grit made of carborundum – see **AB 130**
- Grinding bodies bound with phenolic polymer, not hardened – see **A3070** (phenols)

Broken concrete

Designation: **Green List B2040**

Other wastes containing principally inorganic constituents: Broken concrete

Physical characteristics: solid

Other designations: waste concrete; concrete fragments

EWL designation:
10 13 14 waste concrete and concrete sludge
17 01 01 concrete

Detailed description:
- Concrete fragments, concrete demolition waste, concrete rubble
- Wastes of re-cast concrete blocks (e.g. cast stone, concrete roofing tiles, terrace surfaces, coloured natural stone)
- Concrete from wood-chips aggregate concrete (e.g Heraklith®)
- wastes from today's production of fibre-cement (pure wastes from production in EU Member States, which are evidently free from asbestos)
- Reinforced concrete wastes (concrete equipped with steel inserts/reinforcements)

Demarcation from other, similar Green List wastes:
- Tiles, roofing tiles, bricks, glazed tiles – see **GF 010**
- Plasterboard waste – see **B2040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Untreated demolition material or rubble mixed with construction site waste (plastics, wood, etc.) – unlisted waste
- Debris (with hazardous contamination) – unlisted waste
- Asbestos-contaminated concrete waste, asbestos cement or asbestos cement slabs (Eternit) – see **A2050**
- Hazardous waste that was solidified with concrete – unlisted waste or listed according to the contaminants on list A (Amber List of waste)
- Excavated soil or ground excavation (whether contaminated or not) – unlisted waste
- Excavated tunnel wastes (whether contaminated or not) – unlisted waste
- Track ballast (whether contaminated or not) – unlisted waste
- Excavated gravel or ballast (whether contaminated or not) - unlisted waste (pure gravel from a gravel plant - product)
- Sand (contaminated or mixed with excavated soil) – unlisted waste
- Soil sludge, sand sludge, excavations from slotted walls, dredging soil sludge – unlisted waste
- Used blasting grit – see **AB 130**
- Dredging sludge from wet bagger – unlisted waste
- Household-like wastes from construction sites (excluding demolition waste) – **Y46** household waste or unlisted waste

Li-Ta and Li-Nb glass waste

Designation: **Green List B 2040**

Other wastes containing principally inorganic constituents:
Lithium-tantalum and lithium-niobium containing glass scraps

Physical characteristics: solid

Other designations: cullet and shards of lithium-tantalum/niobium glass; special glass waste; waste optical glass

EWL designation:
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

Detailed description:
Typical composition of lithium-tantalum glass scrap:
60-90% Ta_2O_5, 1-20% Nb_2O_5, 1-20% SiO_2, 5-10% Li_2O

Typical composition of lithium-niobium glass scrap:
60-90% Nb_2O_5, 1-15% Ta_2O_5, 1-10% SiO_2, 5-10%Li_2O

Tantalum oxide is used for special glass with a high index of refraction, e.g. for camera lenses.

Demarcation from other, similar Green List wastes:
- Glass waste in non-dispersible form (except glass from cathode-ray tubes) – see **B2020**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Glass waste from cathode-ray tubes (including cleaned glass from cathode-ray tubes, to the extent lead-bearing) and other activated 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 maybe also **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**

Activated carbon

Designation: **Green List B2060**

Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production

Physical characteristics: solid

Other designations: filter carbon, filter substances made of activated carbon

EWL designation:
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

Detailed description:
Spent activated carbon that comes from potable water treatment, food processing and vitamin production and has no hazardous contamination. Analysis is required to determine whether it is non-hazardous.

Demarcation from other, similar Green List wastes:
There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Spent activated carbon from processes of the inorganic and organic 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, to the extent contaminated with hazardous substances – see **A4160**

Calcium fluoride sludge

Waste designation: **Green List B2070**

Calcium fluoride sludge

Physical characteristics: solid – pasty/highly viscous

Other designations: CaF_2 sludge

EWL designation:
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*

Detailed description:
The waste can accumulate from the neutralisation of hydrofluoric acid or from phosphor chemicals.

Demarcation from other, similar Green List wastes:
- Fluorspar – see **B2010**

Demarcation from other Amber List wastes or unlisted waste (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**

Note: Strong acids release hydrogen fluoride. Caustic hazard!

Gypsum (chemicals industry)

Waste designation: **Green List B2080**

Waste gypsum arising from chemical industry processes not included on list A (Note = Amber List of waste) (note the related entry on list A, A2040)

Physical characteristics: solid

Other designations: industrial gypsum; gypsum from industrial processes

EWL designation:
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 those mentioned in 07 01 11*
07 01 99 wastes not otherwise specified

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 as a by-product from the production of citric acid, tartaric acid, or oxalic acid
- gypsum that accumulates from caprolactam production or the preparation of dilute acid from titanium dioxide production or phosphor chemistry.

Demarcation from other, similar Green List wastes:
- Waste plasterboard – see **B2040**
- Partially refined gypsum from flue-gas desulphurisation (FGD-gypsum) – see **B2040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Other sulphate- and sulphite-containing flue-gas desulphurisation products, e.g. from additive desulphurisation– see **A4100**
- Gypsum with hazardous contamination accumulating from chemical industry processes – see **A2040**
- Unrefined calcium sulphite and calcium sulphate from flue-gas cleaning – see **AB 150**
- Plasterboard with hazardous contamination such as PCB-containing coatings – unlisted waste or classified according to the contaminants (e.g. **A3180**) on list A (Amber List of waste)

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 electrolyses and from metallurgical industry)

Physical characteristics: solid

Other designations: petroleum coke anodes, bitumen anodes, anode scrap from the steel and aluminium industry; anode coke waste

EWL designation:
10 03 02 anode scraps (aluminium industry)
10 03 18 carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17*
10 02 99 wastes not otherwise specified

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.

Note: 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 Directive 75/442/EEC as amended (see the ECJ Decision C-235/02 of 15 Jan. 2004).

Demarcation from other, similar Green List wastes:
- There are no relevant similar entries on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Uncleaned, spent electrodes from the aluminium industry (fluoride content) – unlisted waste or classified according to hazardous inorganic fluoride compounds – see **A2020**
- Anodes from the chlorine-alkali electrolysis – see **A4110** (because of its dioxin content)
- Anodes with hazardous contaminants other than fluoride compounds – unlisted waste or classified according to the relevant contaminant component of list A (Amber List of waste)
- 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 substances – see **A3190**
- Used crucible linings from aluminium smelting (cyanide-containing) – see **A4050**

Aluminium oxide/hydroxide

Waste 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

Physical characteristics: solid

Other designations: aluminium hydroxide, aluminium oxide waste

EWL designation:
06 03 16 metal oxides other than those mentioned in 06 03 15*
10 03 05 aluminium oxide waste
11 01 10 sludge and filter cake other than those mentioned in 11 01 09*
19 02 06 sludges from physico/chemical treatment other than those mentioned in 19 02 05*
10 03 22 other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21*

Detailed description
This category includes alumina and hydrates of aluminium (=hydroxide) and residues from alumina production excluding substances that were used for gas purification or flocculation and filtration processes, because such substances must be assumed to be contaminated a priori.

Aluminium oxide from wet processing of aluminium dross may be subsumed under the Green List entry (e.g. in case of more than 80% aluminium oxide, residual amounts of Si-oxide, Mg-oxide, Fe-oxides), if these wastes do not exhibit hazardous characteristics, especially the criterion H 4.3 and are destined e.g. for material recovery in the cement industry.

In specific cases ball mill dust, suitable for material recovery (limit: chlorine content) may be classified as Green Listed waste, if a proof can be produced that no hazard criterion, especially H 4.3 is met.

Demarcation from other, similar Green List wastes:
- Bauxite residue ("red mud") (pH moderated to less than 11.5) – see **B2110**
- Carborundum (including aluminium oxides) – see **B2040**
- Catalysts on alumina basis (zeolites), to the extent not contaminated – see **GC 050**
- Aluminium skimmings (skims) without hazardous characteristics (metallic aluminium content **at least 45%;** in **single batches**: lowest admissible **limit: 40,5%**) – see **B1100**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Aluminium dross (with little metallic aluminium, aluminium content **below the reference value 45%** or respectively in **single batches below: 40,5%** or aluminium dross or aluminium skimmings with hazardous characteristics (e.g. H4.3) – unlisted waste
- Alumina-containing 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 (=hydroxides) contaminated through other processes – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Aluminium salt slag – unlisted waste
- Ball-milled dust from dross preparation with hazardous characteristics – unlisted waste

Bauxite residue

Waste designation: **Green List B2110**

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

Physical characteristics: solid - sludge-like

Other designations: red mud from alumina production

EWL designation:
01 03 09 red mud from alumina production other than those mentioned in 01 03 07*

Detailed description:
Red mud is a waste of alumina production that may be classified under the Green List if the pH is less than 11.5. The characteristic red colour comes from iron(III) oxide. Such waste is used in road-construction or as raw material for ceramics, for example.

Demarcation from other, similar Green List wastes:
- Waste hydrates of aluminium (aluminium hydroxide) and waste alumina (aluminium oxide) and residues from alumina production (non-contaminated) excluding such materials used for gas cleaning, flocculation or filtration processes **–** see **B2100**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Red mud without sufficient reduction of the pH (i.e. pH greater than 11.5) – unlisted waste

Acids and alkalines (not hazardous)

Designation: **Green List B2120**

Waste acidic or basic solutions with pH greater than 2 and less than 11.5 which are not corrosive or otherwise hazardous (note the related entry on list A, A4090)

Physical characteristics: liquid or solid

Other designations: waste of basic or acidic solutions;

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 lye, diluted ammonia solution or highly diluted caustic potash solution or sodium hydroxide solution

EWL designation:
06 01 06* other acids (Note: pH must be taken into account)
06 01 99 waste not otherwise specified
06 02 05* other bases (Note: pH must be taken into account)
06 02 99 waste not otherwise specified
20 01 14* acids (Note: pH must be taken into account)
20 01 15* alkalines (Note: pH must be taken into account)

Detailed description:
This category includes only acids or alkalines within the specified pH range with low contamination (e.g. “technically pure”) intended for neutralisation purposes, for example.

Examples
- Waste of highly diluted hydrochloric acid, citric acid (lemon juice waste), diluted acetic acid waste (vinegar waste) or lactic acid, mineral water waste, sour milk waste, distilled water with non-hazardous contaminants
- Waste of soap lye, diluted ammonia solution or highly diluted sodium hydroxide solution

Demarcation from other, similar Green List wastes:
- There is no demarcation from a relevant similar category on the Green List of waste

Demarcation from other Amber List wastes or unlisted waste (notification):
- Copper etching 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 with a pH greater than 2 but less than 11.5 with hazardous contamination – see **A4090**
- Acids with a pH less than 2 (e.g. battery acid = sulphuric acid, undiluted hydrochloric acid, nitric acid, “aqua regia” = mixture of hydrochloric acid and nitric acid) and alkaline solutions with a pH 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 by means of indicator paper.

Asphalt waste (free from tar)

Designation: **Green List B2130**

Bituminous material (asphalt waste) from road construction and maintenance, not containing tar

Physical characteristics: solid

Other designations: road rubble (free from tar)

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

Detailed description:
Asphalts are mixtures of bitumen or bitumen-containing binders and mineral substances, as well as other additives or supplements. Previously, asphalt was produced from tarry residues from carbon distillation. Such tars contain carcinogenic polycyclic aromatic hydrocarbons (PAHs) and cannot be categorised as Green List waste.

- Asphalt waste containing no tar (the content of the primary substance benz(a)pyren must not exceed 50 mg/kg dry mass (50 ppm). Analysis (especially of the PAH content) is required to determine whether it is non-hazardous.

Demarcation from other, 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 other Amber List wastes or unlisted waste (notification):
- Tar-containing asphalt in which the content of the primary substance benzo-(a)pyren exceeds 50 mg/kg dry mass (=50 ppm) is nevertheless classifiable as hazardous waste – see **A3200**
- Tarry residues from the refinement, distillation or pyrolysis of organic substances – see **A3190**
- Bitumen roofing felt (e.g. bitumen-aluminium felt) or tar roofing paper – unlisted waste

B3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

Plastic waste

Designation: **Green List B3010**

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 co-polymers

Physical characteristics: solid (except for paraffin C10-C13 which can usually not be polymerised and is used as a plasticiser)

Other designations:
Plastic waste, 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)

EWL designation:
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 plastic shavings and turnings
15 01 02 plastic packaging
16 01 19 plastics
17 02 03 plastic
17 06 04 insulation material other than those mentioned in 17 06 01* and 17 06 03*
19 12 04 plastic and rubber (Note: Green List entry limited to plastic)
20 01 39 plastics

Detailed description:
Ground material and granulate of plastic waste are considered equivalent to the Green List, even if those commercial forms are of low quality, provided that the environmentally sound recovery is possible. Granulate of homogeneous plastics (especially production waste) may be considered equivalent to raw materials (not waste) because they can be directly used without further processing.

The list of plastic wastes is essentially open-ended. 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 Green List entry also covers mixtures of various plastic types, excluding non-plastic materials (such as metals, wood, paper, composite cartons ("Tetrabricks")) as well as contaminated types of plastic, provided that the environmentally sound recovery of the plastic mixture is possible (e.g. polyethylene waste mixed with polypropylene waste) or can be used for energy recovery (in industrial plants such as cement factories, power plants → limiting factors: heavy metals, halogen content).

Scrap waste of non-halogenated polymers and copolymers, including but not limited to the following substances:

- 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 (PU) (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 plasticiser.

*** The waste must not contain any HCFCs, HFCs or fluorocarbons (cf. criterion for eco-toxicity according to the List of Wastes Ordinance

**** Waste containing hazardous silicones is classified as hazardous waste in the European Waste Catalogue and must not be classified as Green List waste.

Polypropylene (PP)

- Recyclable mixtures of plastic waste composed of Polypropylene (PP) and Polyethylene (PE)
- Collected polypropylene bumpers, cleaned car battery cases

Polyurethane (PU)

- Polyurethane waste (not CFC-foamed; not foamed with HCFC, HFC or fluorocarbon), such as scrap PU shoe soles, PU hoses (bulk freight transport), waste dashboards and casting compounds made of PU

Polycarbonate (PC)

- Waste lamp covers, aircraft windows, protective helmets and visors.
- Homogeneous compact disc waste (CDs, DVDs), insulating foil
- 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)

Plastic wastes from collection systems (or similar fractions) after sufficient sorting

The tolerated total level of impurities of non-hazardous substances or other wastes in the plastic fraction on the Green List is **at maximum 10%, including also PVC**, which is to be considered an impurity. The total content of impurities (10%) must not consist of higher amounts of non-hazardous waste, which are assigned to the Amber List of wastes (e.g. treated wood wastes). By no way hazardous waste may be contained to an extent that a hazardous characteristic is

triggered (e.g. > 0.5% lead compounds). In the latter case the waste is to be subject to a notification procedure (mixture of Green listed waste with Amber listed waste).
(See also the **following relevant specifications in Germany for specific fractions***)

- **Polyethylenetherephtalate**
  light weight packaging waste (No. 325*) (minimum: 98% purity) PET bottles, transparent; non-plastic impurities max. 2%; non-plastic impurities such as metals below 0.5% and other residues below 2%

- **Plastic foils**
  light weight packaging fraction (No. 310*) (minimum: 92% purity), total share of impurities 8 %; but non-plastic impurities only at max. 5%; non-plastic impurities such as metals below 0.5%, other residual materials under 4%, [any other plastic items under 4%]

- **Mixed plastic waste**
  Waste of light packaging fraction (No. 320*) (min. 95% purity); total share of impurities at max. 5% ; non-plastic impurities only max. 5%; non-plastic impurities such as metals below 0.5%, other residues of less than 3% [any other plastic items below 3%]

- **PO-polyolefine plastic bottles**
  Waste of light packaging fraction (No. 0321-0*) (min. 94% purity), total share of impurities: max. 6 %; non-plastic impurities only at max. 3.5%, non-plastic impurities such as metals below 0.5% and other residues of less than 3% [other types of plastics less than 3%]

- **Mixed plastic waste from sorting plants for packaging wastes**
  Waste fraction (No 350*) from sorting plants for packaging wastes : at least 90% purity, total impurities 10 %, metallic impurities of a weight > 100g shall not be included, paper, paperboard carton <5 %, other metal items <2 %; PET-bottles transparent <4 %, PVC articles that are no packaging <0.5 %, other residues<3%

Plastic wastes from pre-treatment /recycling of electrical and electronic waste (WEEE)

- Plastics from pre-treatment/recovery of electrical and electronic waste, which evidently come from telephone housings (no cell phones), vacuum cleaner housings, housings of kitchen appliances (e.g. coffee machines), or large household appliances (e.g. washing machines, refrigerators); these wastes usually contain very low amounts or even no hazardous flame retardants such as polybrominated biphenlyethers

- Mixed fractions of plastic housings from household appliances provided that the total content (=sum) of penta-, octa-and decabromodiphenyl ether does not exceed 0.1% (see limit fixed in the ROHS-Directive)

Nota bene:
Plastic fractions from pre-treatment/recovery of WEEE, whose total levels (=sum) of **penta-, octa- and decabromodiphenyl ether exceed 0.1%** and/or whose content of **polybrominated biphenyls** exceeds **50 ppm** (= 0005%) are subject to a **notification obligation** (unlisted waste or in the case of exceeding the limit for PBB – Amber Listed waste: A3180), independently from the subsequent recovery operation.
In case of the presence of higher contents of the above mentioned flame retardants, particularly when the content of octabromodiphenyl ether exceeds 0,5 %, a hazard characteristic (terato-genic) is triggered (→**ban of export** on hazardous wastes to **non-OECD Member Countries).**

According to the provisions of the **EC-WEEE-Regulation** plastics containing brominated flame retardants have to be **separated** and subject to an appropriate disposal/recovery operation.

Mixing of these fractions with other plastic wastes in order to dilute the pollutant content is **prohibited**.

Pursuant to the **Austrian Treatment Obligation Ordinance** as amended, recycling of plastic waste from WEEE containing halogenated flame retardants is allowed only in those production fields, where such flame retardants need to be added due to technical requirements.

Demarcation from other, similar Green List wastes:

- Plastic-coated (laminated) paper and paperboard (composite board) – see **B3020**
- Polymers of vinyl chloride (polyvinyl chloride [PVC] and polyvinylidene chloride [PVDC]) – see **GH 013**
- Waste fluorinated plastic and cured waste resin – see **B3010**
- Waste polymer ethers and [long-chain] non-hazardous monomer ethers incapable of forming peroxides – see **B3130**

Demarcation from other Amber List wastes or unlisted waste (notification):

- **Plastics from recycling/recovery of electrical and electronic waste, which in accordance with the WEEE Ordinance or the EC-WEEE-Directive have to be separated** Plastic waste from electrical and electronic equipment, resulting from TV and monitor housings, power tools, copiers, printers, fax machines, power supplies in most cases contain higher quantities of hazardous flame retardants such as **polybrominated diphenyl ethers** – **unlisted waste** (supervision and control of the environmentally sound recovery/treatment of these wastes by means of a notification procedure is required due to the limited recovery options in accordance with European legislation).If the content of Octabromo-diphenyl ether exceeds 0,5% (hazard criterion: teratogenic is met) or the PBB-content exceeds 50 ppm (=0,005%)(cf. entry **A3180** on the Amber List), the plastic wastes have to be classified as hazardous waste and the shipment to non-OECD countries is prohibited

- **Plastic mixtures from municipal garbage collection, "commercial waste"** (without subsequent sorting and separation of contaminants) or commercial waste similar to household waste (waste mixtures) – see **Y46** (waste collected from households)

- 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 in list A (Amber List of waste)
- Rejects (mixed materials) from waste paper recovery – unlisted waste
- Plastic waste with hazardous contamination, such as PCBs (cf. PCB-containing plastics in the form of floor coverings or waste cable sheathes) or asbestos (cf. plastics with asbestos fibre reinforcement) – unlisted waste or classified according to the relevant contaminants in list A (Amber List of waste)
- Plastic packages with hazardous residual contents or emptied plastic packages that contained substances and preparations that under chemicals laws are required to be marked with a "skull" or the hazard symbol "E" (explosive) – **A4130**
- Plastic foams containing fully halogenated or partially halogenated CFCs – unlisted waste
- Fragments of polypropylene-lead-acid battery cases, to the extent uncleaned – see **A1160** or **A1020**

- Polyurethane (PU)-foam insulating waste (e.g. from refrigerators) or other PU foam that was foamed with CFC or with HCFC, HFC or fluorocarbons – unlisted waste
- Polymethyl methacrylate (PMMA) varnish– see A4070
- Polycarbonate wastes (e.g. from CDs or DVDs) mixed with paper wastes (shredded paper covers and booklets) – unlisted waste

- Waste mixtures of fibre-reinforced polymethyl methacrylate (PMMA) coated with polyester resin and having wooden components (furniture industry waste) – unlisted waste (unlisted waste mixtures)

Non-recoverable plastic mixtures, e.g. plastic mixtures of PET and contaminating PVC that can neither be used for material recycling nor for energy recovery in industrial plants require notification and consent procedure in the case of transboundary shipment.

Nota bene: The use of plastic wastes as cover material for sludge ponds, landfills etc. is no recovery but a disposal operation (notification obligation).

Resins (cured)

Designation: **Green List B3010**

Plastics or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:
Cured waste resins or condensation products

Physical characteristics: solid

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)

EWL designation:
02 01 04 plastic waste (except packaging)
07 02 13 plastic waste
08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09*
12 01 05 plastic 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
20 01 39 plastics
20 01 28 paints, inks, adhesives and resins other than those mentioned in 20 01 27*

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)

Demarcation from other, similar Green List wastes:
- Fluorinated plastic waste and plastic waste of non-halogenated polymers and copolymers – see **B3010**
- Wastes from production, formulation and use of resins, latex, plasticizers, 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 A A3050) – see **B4020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste resin and polymers from municipal garbage collection, “commercial waste” (without subsequent sorting and separation of contaminants) or commercial waste similar to household waste (waste mixtures) – see **Y46** (waste collected from households)

- Resins that are not fully cured and other wastes from production, formulation and use of latex, plasticizers or glues/adhesives (other than the wastes mentioned in 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 List of waste), in the case of contaminated packages/containers – see **A4130**
- Ion exchange resins with hazardous contamination – see **AD 120**

Nota bene: The use of resin and plastic wastes as cover material for sludge ponds, landfills etc. is no recovery but a disposal operation (notification obligation).

Plastic wastes (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 wastes *

* **- Post-consumer wastes are excluded from this entry.**
- Wastes shall not be mixed.
- Problems arising from open-burning practices to be considered.

Physical characteristics: solid

Other designations: plastic waste; pieces of plastic; fluorinated plastic waste

EWL designation:
02 01 04 plastic waste (except packaging)
07 02 13 plastic waste
12 01 05 plastic shavings and turnings
15 01 02 plastic packaging (Note: only scraps or production waste)
16 01 19 plastics
17 02 03 plastic
19 12 04 plastic and rubber (Note: Green List entry limited to plastic)
20 01 39 plastics

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 products.
The following fluorinated polymer waste:
- perfluorethylene/propylene (FEP)
- perfluoro alkoxyl alkane
- tetrafluoroethylene/per fluoro vinyl ether (PFA)
- tetrafluoroethylene/per fluoro methylvinyl ether (MFA)
- polyvinyl fluoride (PVF)
- polyvinylidene fluoride (PVDF)

This category of fluorinated polymer wastes also includes polytetrafluorethylenes (PTFE).

Demarcation from other, similar Green List wastes:
- Polymers of vinyl chloride (e.g. PVC or PVDC) – see **GH 013**
- Cured resins and condensation products and non-halogenated plastics – see **B3010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste accumulated by consumers made of fluorinated plastics such as plastic packaging – see **Y46** (waste collected from households) or possibly unlisted waste
- Fluorinated plastic waste with hazardous contamination – unlisted waste or classified according to the relevant contaminants in list A (Amber List of waste)
- Plastic packages with hazardous residual contents or emptied plastic packages that contained substances and preparations that under chemicals laws are required to be marked with a “skull” or the hazard symbol “E” (explosive) – see **A4130**

Nota bene: The use of resin and plastic wastes as cover material for sludge ponds, landfills etc. is no recovery but a disposal operation (notification obligation).

Paper and paperboard waste

Designation: **Green List B3020**

Paper, paperboard (cardboard) and paper product wastes, provided they are not mixed with hazardous wastes

Physical characteristics: solid

Other designations: paperboard waste, scraps of paper and paperboard, cardboard articles, Tetrabricks, Tetrapacks, scrap paper, scrap paperboard

EWL designation:
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 clean for the Green List and with few improperly sorted materials!)

Detailed description:
Scrap paper submitted to recycling (classified by type of paper pursuant to EN 643: European scrap paper and list of standard types or CEPI – European List of Standard Grades of Recovered Paper and Board: **www.ingede.com/ingindxe/pdf/rec-paper-standard-grades.pdf**)

Wastes and scrap of paper and paperboard:
- 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 or paperboard made mainly of mechanical pulp (e.g. newspapers, journals and similar printed matter)
- Clean, separated beverage boxes (“tetra cartons”, so-called “Tetra Paks”) with metallic and/or plastic coatings
- unsorted waste (e.g. misprints)
- laminated paper (on the condition that the proportion of paper is higher than the share of plastic and/or aluminium)

Demarcation from other, similar Green List wastes:
- Printable plastic label waste (“tear-resistant paper”) – see **B3010**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Non-separated composite cardboard waste (tetra brick packs) and scrap paper in the form of municipally collected household garbage, commercial waste or household waste – see **Y46** (waste collected from households)
- Oil- and bitumen-impregnated paper, thermal paper (fax paper, etc.) – unlisted waste
- Carbonless copy paper (= NCR paper - No Carbon Required) – see **AD 090**
- Carbon paper – see **AD 090**
- Rejects from the paper industry (scrap paper treatment) – mixture of plastic, paper, metal components, etc. – unlisted waste
- Paper fibre sludge and sludge from pulping of tetrabricks (mixture of paper fibres, plastics and aluminium or mixture of paper fibres and plastics) - unlisted wastes
- De-inking sludge – unlisted waste

Textile wastes

Designation: **Green List B3030**

Textile wastes

Physical characteristics: solid

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, cocoanuts, abaca, ramie and other vegetal textile fibres, chemical fibres, worn textile articles, rags, scrap twine, cordage, rope and cables, and other used textile products

EWL designation:
04 02 09 wastes from composite materials (impregnated textiles, elastomer, plastomer)
04 02 15 waste 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

Detailed description:
Sorted textiles as second hand goods constitute products not waste.

Note: Scrap yarn from weaving mills, spinning mills, etc., are to be classified under the relevant item of the Green List according to the type of fibre.

The following substances prepared according to a specification, provided they are not mixed with other 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 fine animal hair
  - Other waste of wool or 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, hemp and ramie)
- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agaves

- Tow and waste (including yarn waste and garnetted stock) of coconut
- Tow and waste (including yarn waste and garnetted stock) of Abaca (Manila hemp or Muse textiles Nee)
- Tow and waste (including yarn waste and garnetted stock) of Ramie and other vegetal 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

Note**:** Rags are classifiable under the Green List 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 tires without attached rubber

Demarcation from other, similar Green List wastes:
- Waste textile floor coverings, carpets – see **B3035**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Contaminated cleaning rags or wiping rags with harmful organic or inorganic residues (e.g. contaminated with oil, solvents or heavy metals), which are not destined for re-use within the scope of a textile rental service – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Waste textile floor coverings and carpets with hazardous contamination (e.g. asbestos, PCB) – listed according to the contaminants in list A (Amber List of waste) or possibly unlisted waste
- Textile fibres resulting from treatment/recovery of end-of-life vehicles (mixture) – unlisted waste
- Textile fibres resulting from treatment of tires, mixed with rubber – unlisted waste
- Old mattresses – see **Y46** household waste (bulky waste)

Waste carpets

Designation: **Green List B3035**

Waste textile floor coverings, carpets

Physical characteristics: solid

Other designations: left-over carpet, waste of floor coverings, textile floor coverings

EWL designation:
04 02 09 wastes from composite materials (impregnated textile, elastomers, plastomers)
04 02 99 wastes not otherwise specified
16 01 22 components not otherwise specified
19 12 08 textiles
20 01 11 textiles

Detailed description:
- Textile floor coverings and carpet waste (primarily production waste, scraps) with no hazardous contamination (such as residues of adhesives, tar, asbestos fibres, PCB etc.)

Demarcation from other, similar Green List wastes:
- Carpet fibres or textile fibres – see **B3030**

Demarcation from other Amber List wastes or unlisted waste (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 in list A (Amber List of waste) or unlisted waste
- Textile floor covering waste containing higher amounts of perfluoro octansulfonate (PFOS) (= a chemical rendering materials fat, oil and water resistant) and PFOS-related substances – in case of material recycling limitations due to the listing in the POP-list have to be taken into consideration
- Old mattresses – see **Y46** household waste (bulky waste)

Rubber wastes

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)

Physical characteristics: solid

Other designations: hard rubber (ebonite) wastes; soft rubber wastes;

EWL designation:
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 mixed rubber and plastic waste)

Detailed description:
Soft natural rubber waste; tire buffing dust (=powder generated by buffing of the tread of old tires), if it does not meet specifications and is not subject to 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).

Note: The use of old tire parings as covering material for clearing basins (sludge ponds), landfills, etc., is not considered to be a recovery operation (subject to notification requirements).
Incineration of rubber wastes in waste incineration facilities dedicated to the processing of municipal solid waste is considered to be a disposal operation according to the relevant ECJ decisions (subject to the notification requirement) at least until Dec 11th 2010 (=deadline for implementation of the EC-Waste Framework Directive 2008). After this date incineration of rubber wastes in waste incinerators may be classified as recovery operation R1 on the condition that certain energy efficiency coefficients are met.

Demarcation from other, similar Green List wastes:
- Waste pneumatic tires (for recovery) without rims – see **B3140**
- Waste parings and scrap of rubber or scrap of old tires (shredded tires) – see **B3080**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Crumb rubber that is used as oil binders - unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Rubber asbestos – see **A2050**
- Mixtures of plastic and rubber – unlisted waste

Wood waste

Waste designation: **Green List B3050**

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

Physical characteristics: solid

Other designations: untreated cork and wood waste

EWL designation:
03 01 01 waste bark and cork
03 01 05 sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04 (Note: chipboards are chemically treated wood and must not be classified as Green List waste, since the Green List category is limited to mechanically treated scrap 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*

Detailed description:
Wood classifiable as Green List waste must only be (pre-)treated mechanically but not chemically. In this context a reference is made to the **EU Correspondents Guidelines No. 5** – Classification of wood wastes under the entries B3050 or AC170 (ec.europa.eu/environment/waste/shipments/index.htm)

- Untreated cork waste such as cork scrap, ground cork, and cork panels
- Wood wool evidently made of chemically untreated wood
- Cuttings from trees and bushes
- Saw dust and wood waste from non-chemically treated wood (wood shavings from clean, non-chemically treated wood are considered by-products from saw mills**)
- 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-wastes, 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 plus or future criteria for pellets as fuels specified in the European standard series of EN 14961)
- Bark wastes and wastes of virgin wood from forestry are considered by-products**

** Prior to the transboundary shipment it is necessary to clarify the status of the material in the country of destination.

Note: In case of bark wastes phytosanitary requirements must be taken into account

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Chemically treated cork and wood waste – see **AC 170**
- Chipboard waste or mixtures of non-chemically treated wood with chipboard waste – see **AC 170**

- Railway sleepers and salt- and oil-impregnated poles – see **AC 170**
- Varnished and impregnated wood (e.g. old wooden windows and window parts)– see **AC 170**
- Wood wool made of chemically treated wood – see **AC 170**
- Pellets or briquettes made of chemically treated wood waste (e.g. containing chemical binders, glues or lacquer and paint residues) - see **AC170**

Wine lees

Waste designation: **Green List B3060**

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

Physical characteristics: solid

Other designations: wine sediments

EWL designation:
02 07 02 waste from spirits distillation
02 07 04 materials unsuitable for consumption or processing

Detailed description:
Wine lees are the lees that accumulate from the first drawing off of the wine; they consist mainly of yeast and tartaric acid salts such as potassium hydrogen tartrate (tartar) and calcium hydrogen tartrate (used in making tartaric acid and as a leavening agent)

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- There is no relevant similar waste on the Amber List

Food waste (vegetable)

Designation: **Green List B3060**

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

Physical characteristics: solid, highly viscous

Other designations: oil seed press residues, beet chips, vegetable waste from the canning industry and frozen food manufacture

EWL designation:
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 biodegradable waste

Detailed description:
- Dried and sterilized vegetable waste, including pellets or animal feed, such as oil seed press residues, beet chips
- Residues from the vegetable canning and frozen food industry (production waste only)

Demarcation from other, similar Green List wastes:
- Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit hazardous contaminations – 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**
- Cuttings from trees and bushes – **B3050**
- expired vegetable food (fruits, vegetables) from markets and food trade in unpacked form – see **B3060** (<u>other</u> wastes from the agro-food industry)

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste from the collection of biological waste, leftover vegetable waste from canteens, industrial kitchens, restaurants (packed or unpacked) – see **Y46** (waste collected from households)
- Garden and park wastes (other than solely cuttings from trees and bushes) – unlisted wastes

Degras

Designation: **Green List B3060**

Wastes arising from agro-food industries provided they is not infectious:
Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes

Physical characteristics: liquid/solid

Other designations:
Stuffing from chamoising

EWL designation:
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

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 alkalis (e.g. soda solutions); it is recovered as partially oxidised waste fat precipitated out of the emulsion by using sulphuric acid.

Demarcation from other, similar Green List wastes:
- Waste edible fats and oils– see **B3065**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Degras with mineral oil contamination or mineral oil – see **A3020**

Waste of bones and horns

Designation: **Green List B3060**

Wastes from agro-food industries provided they are not infectious:
Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised

Physical characteristics: solid

Other designations: waste of bones and horn parts;

EWL designation:
02 02 02 animal-tissue waste
02 02 03 materials unsuitable for consumption or processing

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 a permit according to Regulation (EC) No. 1774/2002 as amended and does not fall within the scope of the EU-Waste Shipment Regulation) and horn parts that are intended for recovery

Note: The EC Waste Shipment Regulation No. 1013/2006 generally does not apply to shipment of waste that requires a permit under Regulation (EC) No. 1774/2002 (material in categories 1 and 2).

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 EC Animal By-Product Regulation No.1774/2002 as amended and is therefore exempted from the provisions of the EC Waste Shipment Regulation No. 1013/2006**.**

Note: product line
Bones* (marrowbones) that belong exclusively to category 3 according to the EC Animal By-product Regulation No. 1774/2002, should be regarded as products (not waste) if used in the animal feed or food line 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 are specific risk material

Demarcation from other, 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 No. 1774/2002 – see **B3060**

Demarcation from other Amber List wastes or unlisted waste (notification):

- There are no relevant categories in the Amber List
  Animal waste that requires a permit under the Regulation (EC) No. 1774/2002 as amended does not fall within the scope of EC Waste Shipment Regulation No.1013/2006.

Fish waste

Designation: **Green List B3060**

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

Physical characteristics: solid

Other designations: wastes of fish; (fish meal)

EWL designation:
02 01 02 animal-tissue waste
02 02 02 animal-tissue waste
02 02 03 materials unsuitable for consumption or processing

Detailed description:
- Various waste of edible fish, for example, but not infectious or contaminated with hazardous substances or waste

Note: The EC Waste Shipment Regulation No. 1013/2006 generally does not apply to the shipment of waste that is subject to a permit according to the Regulation (EC) No. 1774/2002 (category-1 and -2 material).

Fish meal (= processed animal protein: dried and ground fish or fish parts) that falls under category 3 and requires a permit under EC Animal By-product Regulation No. 1774/2002 as amended is therefore exempt from the provisions of the EC Waste Shipment Regulation No. 1013/2006.

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):
- Fish waste or fish meal with hazardous contamination such as PCB, mineral oil – unlisted waste or listed according to the contaminants in list A (Amber List of waste)

Cocoa waste

Waste designation: **Green List B3060**

Wastes arising from agro-food industries provided they are not infectious:
Cocoa shells, husks, skins and other cocoa waste

Physical characteristics: solid

Other designations:
cocoa waste

EWL designation:
02 03 04 materials unsuitable for consumption or processing
02 03 99 wastes not otherwise specified

Detailed description:
- cocoa husks, cocoa skins 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 other, 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 other Amber List wastes or unlisted waste (notification):
- Cocoa waste contaminated with hazardous substances and other contaminated vegetal waste– unlisted waste or classified according to the contaminants in list A (Amber List of waste)

Food waste

Designation: **Green List B3060**

Wastes arising from 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

Physical characteristics: solid– sludge-like, liquid

Other designations: food waste (exclusively limited to off-specification batches from production), waste from the milk industry and dairy farms, carcass parts (category 3 of EC Regulation No. 1774/2002) that are not intended for human consumption, waste food products

EWL designation:
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

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. 1774/2002 as amended, such as:

- Food waste exclusively from production (off-specification batches): such as pizza dough slices (coated or uncoated) from manufacturing; off specification batches of beer, cheese waste from manufacturing, etc.
- expired vegetable food (fruits, vegetables) from markets and food trade, unpacked
- Animal parts that are edible (but, for commercial reasons, not intended for human consumption) and edible animal parts (that do not show clinical signs of disease communicable to humans or animals and originating from carcasses that are suitable for consumption under Community law)
- Blood from animals other than ruminants
- Waste from the recovery of products intended for human consumption, including milk and dairy products and eggs
- Foodstuffs of animal origin, only production waste (excluding left-over food from kitchens, canteens, restaurants or organic waste collection container, food past the expiration 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 that are not hazardous to the health of humans or animals
- Spoiled raw milk from animals

- Waste eggshells and eggs from animals which do not show clinical signs of disease communicable by such products to humans or animals
- Animal fat in category 3 (Note: animal fat of categories 1 and 2 and mixtures thereof require a permit according to EC Animal By-product Regulation No. 1774/2002 as amended and do not fall within the scope of EC Waste Shipment Regulation No. 1013/2006)

Note: Examples of animal by-products in the non-waste range (Product)

Processed animal proteins (animal meal, 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 Animal By-Product Regulation in such a way that it can be used directly as a raw material for the manufacture of animal feed or in any other way in permissible animal feed, including food for pet and animals raised for their precious furs 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, used 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 Annex 1 of the Fertiliser Ordinance, Federal Law Gazette II, 100/2004 as amended, that are intended for the manufacture of a permissible fertiliser according to the provisions of the Animal By-product Regulation (EC) No. 1774/2002 as amended.

Bones* (marrowbones*) used in the animal feed or food line for the manufacture of gelatine and bone glue
*Note: but never cattle skull bones or skull bones of goats and sheep

Slaughter waste of category 3, that is not typically intended for human consumption in a country (e.g. bull testicles, udders, etc.), but usable in the pet food market.

Raw products, milk and dairy products, eggs, greaves intended for animal feed production

Note: Processed animal proteins (such as animal meal, animal fat, hydrolyzates of animal proteins, blood meal) of categories 1 through 3 (from rendering facilities) are subject to the veterinary permit requirements according to EC Animal By-product Regulation No. 1774/2002 as amended and are therefore exempt from the provisions of the EC Waste Shipment Regulation No. 1013/2006.

Demarcation from other, similar Green List wastes:

- 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 – see **B3060**
- Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit a hazardous contamination – see **B3065**
- Fish waste – see **B3060**
- cuttings from trees and bushes – to be subsumed under **B3050**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Left-over food, kitchen and canteen waste from restaurants, catering establishments and kitchens, including industrial and household kitchens (category-3 material according to EC Animal By-product Regulation No. 1774/2002 as amended) – see **Y46** (waste collected from households)

- Waste from organic containers (collection of biological waste) as well as expired food, packed or unpackaged (e.g. from grocery store chains, fast-food chains), which was already placed on the market – see **Y46** (waste collected from households)
- Grease trap contents, flotation substances, and sewage sludge – see **AC 270**
- Separated animal fats and oils from sewage treatment (fat separation) – unlisted waste
- Other garden and park wastes (except cuttings from trees and bushes) – unlisted waste

Note:
Slaughter waste, carcasses, confiscated goods and animal fat of categories 1+2 according to EC Regulation No. 1774/2002 as amended, are exempt from the provisions of the EC Waste Shipment Regulation, especially since such waste is already subject to the strict permit requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.

The exemption from the provisions of the EC Waste Shipment Regulation as applies to catering wastes or left-over food from international transport (= category-1 material).

Gastro-intestinal contents (category-2 material) and infectious waste (according to veterinary law) do not fall within the scope of EC Waste Shipment Regulation No. 1013/2006, especially since such waste is already subject to the strict requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.

Faeces, solid and liquid manure (category-2 material) are subject to the veterinary permit requirements of EC Animal By-product Regulation No.1774/2002 as amended rather than to the EC Waste Shipment Regulation.

The same is true of faeces, solid and liquid manure from farms that are recycled in agriculture, since such waste is exempted from the scope of EC Waste Framework Directive and thus from the EC Waste Shipment Regulation, as well.

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 any Annex III[1] characteristics

Physical characteristics: solid, highly viscous, liquid

Other designations:
waste fat from canteens and restaurants; cooking fats, frying fats and oils

EWL designation:
20 01 25 edible oil and fat

Detailed description:
- Edible oil and fat of animal or vegetal origin (e.g. frying oils) to the extent free from hazardous impurities (such as waste mineral oils, PCBs, polychlorinated dibenzodioxins, etc.)
- Refined or pre-treated edible oil and fat (e.g. by means of filtration, sedimentation, centrifugation, separation of water)

  Note: There are possibilities of recycling in the production of loss lubricant and biodiesel production as well as in soap production, for instance.

Demarcation from other, similar Green List wastes:
- Animal fat (no edible fat) from slaughter, to the extent that it is category-3 material according to the EC Animal By-product Regulation No. 1774/2002 as amended – see **B3060** (other waste from the agro-food industry)

Demarcation from other Amber List wastes or unlisted waste (notification):
- Edible fats/oils with hazardous contamination (such as waste mineral oils, PCB, polychlorinated dibenzodioxins, etc.) – unlisted waste or listed according to the hazardous component of list A (Amber List of waste)
- Waste edible oil/fats from fat separators – see **AC 270**
- Separated animal fats and oils from sewage treatment (fat separation) – unlisted waste
- Waste mineral oils – see **A3020**
- Glycerine phase from biodiesel production**(consisting of glycerine, free fatty acids, water, methanol and potassium hydroxide) – **A3140**

** Glycerine phase is classified as hazardous waste in Austria and subject to a notification and permitting procedure pursuant to Art. 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.

Note: Animal fats from slaughter that are subject to the veterinary permit requirements of EC Animal By-product Regulation No. 1774/2002 as amended (categories 1 and 2), are outside the scope of EC Waste Shipment Regulation No. 1013/2006.

Hair waste (human)

Designation:	**Green List B3070**
Waste of human hair	

Physical characteristics: solid

Other designations: hair waste; human hair

EWL designation:
There is no specific entry for human hair in the European Waste Catalogue

Detailed description:
- Human hairs are long filaments mainly consisting of keratin.

Demarcation from other, similar Green List wastes:
- Waste of wool or of fine or course animal hair – see **B3030**
- Waste of of pigs', hogs', boars' bristles and hair or of badger hair and other brushmaking hair – see **GN 010**
- Fellmongery wastes – see **B3110**
- Horsehair waste, whether or not put up as a layer with or without supporting material – see **GN 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances – see **A3110**

Waste straw

Designation: **Green List B3070**

Waste straw

Physical characteristics: solid

Other designations: waste of straw

EWL designation:
02 01 03 plant-tissue waste
20 02 01 biodegradable waste

Detailed description:
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 such waste grains, only. Only uncontaminated left-over straw can be classified in the Green List.

Demarcation from other, similar Green List wastes:
- There is no relevant similar waste on the Green List

Demarcation from other Amber List wastes or unlisted waste (notification):

Veterinary regulations:
Faeces, solid and liquid manure (category-2 material) mixed with strewing straw from non-agricultural operations or from agricultural operations insofar as they are not intended for agricultural use are theoretically mentioned in the Amber List under **AC 260** "Liquid pig manure, faeces" but are subject to the veterinary permit requirements of EC Regulation No. 1774/2002 as amended and thus exempted from the EC-Waste Shipment Regulation No. 1013/2006. The same is true of faeces, solid and liquid manure from farms for recycling in agriculture, since such waste by definition are outside the scope of the EC Waste Framework Directive Nr. 12/2006 (or respectively the EC Framework Directive No. 98/2008, which is applicable by Dec. 11th 2010) and thus also exempt from the EC-Waste Shipment Regulation.

Infectious wastes (faeces) are subject to the veterinary permit requirements of EC Regulation No. 1774/2002 as amended rather than to the EC Waste Shipment Regulation.

Fungus mycelium

Designation: **Green List B3070**

Deactivated fungus mycelium from penicillin production to be used as animal feed

Physical characteristics: solid-highly viscous

Other designations: mould filaments from antibiotics production

EWL designation:
07 05 14 solid wastes other than those mentioned in 07 05 13*
07 05 99 wastes not otherwise specified

Detailed description:
Mycelium refers to all the thread-like cells of a fungus. Such waste must be intended for animal feed.

Demarcation from other, similar Green List wastes:
- 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 – see **B3060**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Residues from penicillin production or fungus mycelium with hazardous contamination – see **A4010**

Rubber waste

Designation: **Green List B3080**

Waste parings and scrap of rubber

Physical characteristics: solid

Other designations: rubber scrap, rubber crumbs, rubber meal, rubber waste, old tire scrap

EWL designation:
07 02 99 wastes not otherwise specified
16 01 03 end-of-life tires (Note: only end-of-life tire scrap)
16 01 22 components not otherwise specified
19 12 04 plastic and rubber (Note: limited to rubber; no rubber waste mixed with plastics)

Detailed description:
This category includes waste, crumbs and scraps from rubber and shredded tires (excluding tire buffing dust – entry B3040) for material recovery or energy recovery in industrial plants (such as cement factories and power plants).

Note: The use of old tire parings as covering material for clearing basins/sludge ponds, landfills, etc., is not considered to be recovery operation (notification is required).

Incineration of rubber wastes and tire parings in waste incineration facilities dedicated to the processing of municipal solid waste is considered to be a disposal operation according to the relevant ECJ decisions (subject to notification requirements) at least until Dec 11th 2010 (deadline for implementation of the EC-Waste Framework Directive No.98/2008). After this date incineration of rubber wastes in waste incinerators may be classified as recovery operation R1 on the condition that certain energy efficiency coefficients are met.

Demarcation from other, similar Green List wastes:
- whole end-of-life tires (without rims) to the extent not intended for operations defined in Annex IVA of the Basel Convention (*Note: Disposal*)– see **B3140**
- hard rubber waste (ebonite) and other rubber waste – see **B3040**
- tire buffing dust (=powder generated by buffing of the tread of old tires), if it does not meet specifications and is not subject to quality control – see **B3040**
- synthetic rubber wastes – see **B3040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Contaminated rubber waste that was used as an absorbent for hazardous chemicals or wastes is classifiable according to the contaminants in list A (Amber List of waste) or unlisted waste
- Mixtures of plastic and rubber wastes – unlisted waste
- Mixtures of textile fibres and rubber wastes from pre-treatment of waste tires – unlisted waste
- Shredder light fraction – see **A3120**

Waste 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)

Physical characteristics: solid

Other designations: waste of raw skived leather, glue leather, vegetable-tanned leather; chrome leather (chromium -(III)-tanned)

EWL designation:
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)

Detailed description:
Leather is a material obtained by tanning the skin of animals (cows, calves, goats, pigs, crocodiles, horses, etc.). Leather should be tanned only with chromium (III) salts, never with the highly toxic and carcinogenic chromium (VI) compounds. Tanning with chromium (VI) salts is now extremely rare in Europe but still practiced 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

Demarcation from other, similar Green List wastes:
- Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides – see **B3100**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste leather dust, ash, sludges, leather meal when containing hexavalent chromium compounds or biocides – see **A3090**
- 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 – see **A3100**

Waste 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)

Physical characteristics: solid, highly viscous

Other designations: dispersible leather waste; fine particles of leather

EWL designation:
04 01 08 waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09 wastes from dressing and finishing

Detailed description
- Leather is a material obtained by tanning the skin of animals (cows, calves, goats, pigs, crocodiles, horses, etc.). Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides is classifiable in the Green List. Tanning with the highly toxic and carcinogenic chromium (VI) salts is now extremely rare in Europe but still practiced in developing nations.

Demarcation from other, similar Green List wastes:
- Paring and other wastes of leather or of composition leather – see **B3090**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Waste leather dust, ash, sludges or flours when containing with hexavalent chromium compounds or biocides – see **A3090**
- Tanning sludge and ashing sludge – unlisted waste

Fellmongery waste

Designation: **Green List B3110**

Fellmongery waste not containing hexavalent chromium compounds or biocides

Physical characteristics: solid

Other designations: fur waste, hide waste

EWL designation:
04 01 09 wastes from dressing and finishing
04 01 99 wastes not otherwise specified

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)

Demarcation from other, similar Green List wastes:
- Paring and other wastes of leather or of composition leather – see **B3090**
- Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides – **B3100**
- Waste of pigs', hogs' and boars' bristles and hair or of badger hair and other brushmaking hair – see **GN 010**
- 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 **GN 020**
- Waste of human hair – see **B3070**

Demarcation from other Amber List waste or unlisted waste (notification):
- Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances – see **A3110**
- Chemicals that were used for fellmongery – unlisted waste or classified according to the chemicals on list A (Amber List of waste)

Wastes of categories 1 and 2 according to EC Regulation No. 1774/2002, as amended, are exempt from the provisions of the EC Waste Shipment Regulation No. 103/2006, especially since such waste is already subject to the strict requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.

Food dye waste

Designation: **Green List B3120**

Wastes consisting of food dyes

Physical characteristics: solid, liquid, highly viscous

Other designations: food dye waste

EWL designation:
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

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 boldfaced 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 (C30) E 160e, Beta-apo-8'-carontenic acid (C30), 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-phoshate (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)

Demarcation from other, 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 other Amber List wastes or unlisted waste (notification):
- Dyes and paints with hazardous characteristics (because they contain heavy metals, solvents, hazardous pH levels, biocide additives, etc.) – see **A4070**

Ethers (polymers)

Designation: **Green List B3130**

Waste polymer ethers and waste non-hazardous [long-chained] monomer ethers incapable of forming peroxides

Physical characteristics: solid (except for ethylene diglycol)

Other designations: polyether; synthetic resin; ethylene diglycol (faulty batches)

EWL designation:
Classification of ethylene diglycol:
16 03 06 organic wastes other than those mentioned in 16 03 05* *(note: faulty batches)*

Classification of polymer ether
02 01 04 plastic waste (except packaging)
07 02 13 plastic waste
08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09*
12 01 05 plastic 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
20 01 39 plastics
20 01 28 paints, inks, adhesives and resins other than those mentioned in 20 01 27*

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 was intended to refer to “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 examples)
- Ethylene diglycol (liquid)

That category was intended to make clear that such “ethers” were not hazardous despite the formaldehyde category Y40 in the Basel Convention.

Demarcation from other, 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**

Demarcation from other Amber List wastes or unlisted waste (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**

Waste pneumatic tires

Designation: **Green List B3140**

Waste pneumatic tires, excluding those destined for Annex IVA[1] operations (note: disposal

Physical characteristics: solid

Other designations: tire waste; scrap tires, old or end-of-life tires, old motor vehicle tires, old motorcycle wheels, old bicycle wheels, solid rubber tires

EWL designation:
16 01 03 end-of-life tires

Detailed description:
This entry refers to waste tires without rims.
The supporting element of the tire (the so-called "carcass") consists of several layers of woven textiles (wool, rayon, polyester, etc.) that are looped about a steel-cord core.

This includes, in particular:
- motor vehicle tires
- bicycle tires
- solid rubber tires

The old tires must either be intended for recovery of materials (e.g. for the manufacture of rubber crumbs as a raw material for rubber mats, rubber wheels, retreading) or energy recovery processes (in industrial firing plants**).

Comment: Retreading means that the old tread of a worn tire are mechanically abraded (or peeled off with blades), and new tread is applied, and then vulcanised.

Note: In case of summer tires older than 10 years and winter tires older than 6 years there is high probability that these tires have been discarded and constitute wastes (pay attention to cracks!). It should be noted that even used tires, which still have the required minimum depth for further use in Austria, but which are destined for a recovery operation (e.g. retreading) have to be classified as waste.
The date of manufacture of the tire can be taken from the four-digit DOT Number (DOT = Department of Transportation) stamped into the sidewall of the tire.

The first two digits indicate the calendar week (CW) and the third shows the final digit of the year of manufacture. Beginning from1990 a little triangle symbol follows the DOT code. Beginning from 2000, the DOT number consists of four digits.
A tire with the DOT number 347 was manufactured in week 34 of 1987.
A tire with the DOT number 489 (followed by a triangle symbol) was manufactured in week 48 of 1999.
A tire with the DOT Number 4801 was made in the Week 48 of 2001.

Note: The use of old tire parings as covering material for clearing basins (sludge ponds), landfills, etc., is not considered to be a recovery operation (rather, it is considered to be disposal, so notification is required).

**Incineration of waste tires in waste incineration facilities dedicated to the processing of municipal solid waste is considered to be a disposal operation according to the relevant ECJ decisions (subject to notification requirements) at least until Dec 11th 2010 (deadline for implementation of the EC-Waste Framework Directive 2008). After this date incineration of rubber wastes in waste incinerators may be classified as recovery operation R1 on the condition that certain energy efficiency coefficients are met.

Demarcation from other, similar Green List wastes:

- Rubber waste (including hard rubber) – see **B3040**
- Waste parings and scrap of rubber (e.g. shredded tires) – see **B3080**
- Tire buffing dust (=powder generated by buffing the tread of old tires), if it does not meet specifications and is not subject to quality control – see **B3040**
- waste of synthetic rubber –see **B3040**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Old tire rubber crumbs, which were used as absorbents, for example, and are contaminated with hazardous substances– listed according to the contaminants in list A (Amber List of waste) or unlisted waste
- Waste tires with rims - unlisted

B4 Wastes which may contain either inorganic and organic constituents

Waste paints (not containing solvents)

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

Physical characteristics: solid, highly viscous, liquid

Other designations: latex paint waste, ink waste, toner waste, cured varnish

EWL designation:
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 tone other than those mentioned in 08 03 17*
20 01 28 paints, inks, adhesives and resins other than those mentioned in 20 01 27*

Detailed description:
- Latex paints 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. Emulsion wall paints are sometimes mistakenly called latex paints, although they only contain a high percentage of resin and no latex.
- Besides liquid resin-latex paint, there are so-called compact paints. Such waste may be classified as Green List waste only if it has no hazardous properties (especially H 4.1, H 3, H 6.1 and **H 13 leachate**, in particular).
- Water-soluble ink waste on the condition that it does not meet a hazard criterion (cf. safety data sheets or 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 lacquer, free from heavy metals (e.g. on the basis of epoxy resins/polyester or polyester) without hazardous characteristics

Demarcation from other, similar Green List wastes:
- Wastes consisting of food dyes – see **B3120**
- Toner and ink cartridges without residues of hazardous toners and inks (safety data sheets!) and photoconductor drums without hazardous coatings (e.g. drums with unproblematic OPC (organic photo-conductor) coating or scratch-resistant amorphous silicon layer or zinc oxide coating) – see **GC 020**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Hazardous left-over toner or ink residues – see **AD 090** or maybe **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 latex paint exhibiting hazardous characteristics (heavy metals, solvents) – see **A4070**

Resins/Latex/Plasticisers/Glues/Adhesives (not containing solvents)

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 characteristics, e.g. water based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A, A3050)

Physical characteristics: solid, pasty

Other designations: glues, waste of water-soluble glue based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols

EWL designation:
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 glue or sealant, other than those mentioned in 08 04 13*
08 04 16 aqueous liquid wastes containing glue 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*

Detailed description:
This category concerns non-hazardous waste of resins, latex, plasticisers, and glues/adhesives that do not contain any solvents or other hazardous components or contaminants, such as water-soluble glue of vegetal origin (starch, dextrin, sago or tapioca glue), of synthetic origin (cellulose ether, polyvinyl alcohol) or of animal origin (hide, leather, bone or casein glue).

Demarcation from other, similar Green List wastes:
- Plastic waste and cured waste resins or condensation products – see **B3010**
- Certain polymer ethers – see **B3130**

Demarcation from other Amber List wastes or unlisted waste (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**

Single-use cameras

Designation: **Green List B4030**
Used single-use cameras with batteries not included on list A

Note: 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 Austria all types of batteries are classified as hazardous waste ex lege and cannot be declassified as non-hazardous waste. Pursuant to Art 3 Para 3 of the EC-Waste Shipment Regulation No. 1013/2006, wastes assigned to the Green List shall be subject to the control procedure of the Amber List, if these waste exhibit hazardous characteristics. Therefore the shipment of all waste batteries and items containing batteries requires a notification procedure.

This fact has been notified to the European Commission pursuant to Art 3 Para 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 of wastes). The evaluation by the Commission is being carried out within the scope of the revision of the European Waste List.

Physical characteristics: solid

Other designations: disposable cameras, single-use cameras

EWL designation:
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, all batteries are considered hazardous, so this entry is not applicable)

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; the housing can be reused. 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 other, similar Green List wastes:
- There is no relevant similar entry on the Green List

Note: **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.

Demarcation from other Amber List wastes or unlisted waste (notification):
- Single-use cameras with all types of batteries – see **A1180** (or maybe unlisted waste)
- All types of waste batteries (sorted or unsorted batteries) – see **A1170**

Wastes listed in Part II of Annex III (Green List) of the EC Wastes shipment Regulation No. 1013/2006

Slags from precious metals and copper processing

Designation:	**Green List GB 040**
Metal bearing wastes arising from melting, smelting and and refining of metals: slags from precious metals and copper processing for further refining	

Physical characteristics: solid

Other designations: slags from smelting of non-ferrous metals

EWL designation:
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

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 of copper alloys may be subsumed under this entry (see: **ec.europa.eu/environment/waste/shipments/index.htm**). The conditions for this classification are the same as for slags from processing of copper (non-hazardous waste)

Demarcation from other, similar Green List wastes:
- Zinc-containing drosses – see **B1100**
- Tantalum-bearing tin slags with less than 0.5% tin - see **B1100**
- 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 other Amber List wastes or unlisted waste (notification):
- Slags classifiable as hazardous (e.g. high lead content) – unlisted waste or listed according to the contaminants in list A (Amber List of waste), e.g. lead slag – see **A1020**

End-of-life electrical assemblies /components

Designation: **Green List GC 010**

Electrical assemblies consisting only of metals or alloys

Physical characteristics: solid

Other designations: metal-containing components, electrical assemblies or components consisting of metals; electronic scrap; e-scrap

EWL designation:

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 those mentioned in 20 01 21*, 20 01 23* and 20 01 35*

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/H-CFCs/H-HFCs) and compressor oil have been removed by suction using state-of-the-art technology (see guidelines in the Waste Treatment Obligations Ordinance as amended).

Demarcation from other, 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 **GC 020**
- 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 other Amber List wastes or unlisted waste (notification):

- Waste electrical and electronic assemblies or scrap containing environmentally-relevant levels of hazardous substances (e.g. undrained oil radiators) – see **A1180** or maybe unlisted waste
- Full or drained PCB-transformers– see **A1180** or **A3180**
- Engines with PCB-starting capacitors or electrolytic capacitors – see **A1180**
- Compressor scrap containing oil – see **A1180**

Electronic scrap

Designation: **Green List GC 020**

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

Physical characteristics: solid

Other designations:
electronic scrap; waste electronic/electrical devices and components; electronic components for recycling/recovery; end-of-life electronic/electrical appliances; printed circuit boards; scrap devices

EWL designation:
16 02 14 discarded equipment other than those mentioned in 16 02 09* bis 16 02 13*
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 those mentioned in 20 01 21*, 20 01 23* and 20 01 35*

Detailed description:
- Fully or partially depopulated printed circuit boards and racks that do not contain any hazardous components (cf. Waste Treatment Obligation Ordinance, Federal Law Gazette II No. 459/2004 as amended and the Austrian WEEE-Ordinance, Federal Law Gazette II No. 121/2005, and Directive 2002/96/EC), such as:
  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 cm^2 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
- Wires (but by no means those contaminated with oil, PCB or coal tar) – see the special categories for cables in list **B1115** (or list **A1190**, to the extent contaminated with PCB or tar)
- Resistors
- Electrical/electronic assemblies or components without environmentally-relevant quantities of hazardous substances or ingredients: 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
- Printer, 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 or with scratch-resistant amorphous silicon layer or zinc oxide coating) - see also **EU Correspondents Guidelines No 8** – **ec.europa.eu/ environment/waste/shipments/index.htm**)

- Wastes of silicon wafers (= thin slices of metal plates/discs of different size, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) consisting of monocrystallic silicon or silicon carbide from microchip production (EWL 06 08 99 wastes n.o.s – category of MFUA of silicon and silicon compounds) excluding those consisting of Gallium arsenide (toxic) or Indium phosphide (harmful)

- 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 substances) – a written certificate of pre-treatment is required

Demarcation from other, similar Green List wastes:

- Electrical assemblies consisting only of metals or alloys – see **GC 010**
- 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 List of waste), 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 – see **B3010**
- Waste toners not containing organic solvents, heavy metals etc. to an extent rendering them hazardous– see **B4010**

Demarcation from other Amber List wastes or unlisted waste (notification):

For the classification of electronic scrap exhibiting hazardous characteristics under A1180 or unlisted waste it shall be referred to the **Correspondents Guidelines No 4**
(see: **ec.europa.eu/environment/waste/shipments/index.htm**)

Electronic scrap with radioactive components

Old ionisaton fire detectors or smoke detectors that operate on the basis of a radioactive material (in most cases Am ^{241}; in former times also Radium, Xenon, Krypton (Kr 85) and Tritium in glass ampulles) are exempted from the waste definition in the meaning of the Federal Waste Management Act 2002 as amended or respectively the EC Framework Directive on Wastes 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 ionizing materials requires a notification and permitting procedure in accordance with the Waste Shipment Regulation No 1013/2006 or the Federal Waste Management Act 2002 as amended, 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 detector waste 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 maybe 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 Obligation Ordinance, Federal Law Gazette II No. 459/2004 as amended, Austrian WEEE-Ordinance, Federal Law Gazette II No. 121/2005 and Directive 2002/96/EC) – 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 **AC 150**
- Thermal oil or end-of-life appliances with thermal oils – see **A3020** or **A1180**
- Wastes of liquid and pasty, as well as coloured toner and ink with hazardous characteristics – see **AD 090** (or possibly **A4070)**
- 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 (cf. **EU-Correspondents Guidelines No 8** – **ec.europa.eu/ environment/waste/shipments/index.htm)** – 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 ovens, 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**

Note: Refrigerators, after removal of the CFC or HCFC from the cooling circuit, are by no means classifiable as Green List waste, since more than 2/3 of the CFCs or HCFCs in old refrigerators are found in the PU foam.

- Devices whose main component (by weight) is a storage battery or other battery (e.g. cordless drills, electric toothbrushes, mobile telephones) – see **A1180** (Note: may be classified under the Green List after removal of the power source)
- 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**
- Carbonised cables or old metal cables containing or contaminated with oil, coal tar, PCBs or other hazardous substances (e.g. underground cables) so that they have hazardous properties – see **A1190**
- Ground electronic scrap for which it has not been ascertained that pre-treatment was performed in accordance with the provisions of the Waste Treatment Obligations Ordinance, Federal Law Gazette II No. 459/2004 as amended, the Austrian WEEE-Ordinance, Federal Law Gazette II No. 121/2005 or Directive 2002/96/EC as amended (e.g. circuit boards not sufficiently depopulated) – unlisted waste

- Precious metal ash from incineration of printed circuit boards (with hazardous characteristics) – see **A1150**
- Wastes of wafers (= thin slices of metal plates/discs of different size, used in the semiconductor industry, in photo-technical or in micro-mechanical processes) made of Gallium arsenide (toxic) or Indium phosphide (harmful) – unlisted waste
- Single use cameras containing all types of batteries– see **A1180** (or maybe unlisted)

End-of-life vessels

Designation: **Green List GC 030**

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

Physical characteristics: solid

Other designations: end-of-life ships; ships intended for dismantling

EWL designation:
There is no specific category in the European Waste Catalogue; possibly classifiable under 16 01 06 “end-of-life vehicles, containing neither liquids nor other hazardous components”

Detailed description:
- Ships and other vessels intended for dismantling/breaking up (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 substances, especially 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, transformers– see **A3180**).

Demarcation from other, similar Green List wastes:
- End-of-life motor vehicles, after drainage of all liquids and removal of hazardous components – see **B1250**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Vessels and other floating structures for breaking up, containing hazardous cargoes and hazardous substances (such as oil, PCBs, asbestos, etc.) – unlisted waste
- End-of-life motor vehicles without drainage of all liquids and without removal of hazardous substances – unlisted waste

Catalysts (zeolites)

Designation:	**Green List GC 050**
Spent fluid catalytic cracking (FCC) catalysts (e.g. aluminium oxide, zeolites)	

Physical characteristics: solid

Other designations: aluminium oxide catalysts; zeolite catalysts

EWL designation:
16 08 04 spent fluid catalytic cracking catalysts (except 16 08 07*)

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 other, 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 other Amber List wastes or unlisted waste (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**

Fibre glass wastes

Designation: **Green List GE 020**

Glass waste in non-dispersible form:
Fibre glass wastes

Physical characteristics: solid

Other designations: fibre glass waste

EWL designation:
10 11 03 waste glass-based fibrous materials
17 06 04 insulation material other than those mentioned in 17 06 01* and 17 06 03*

Detailed description:
Fibre-glass waste (glass wool), free from substances that are hazardous or prevent recovery

Demarcation from other, similar Green List wastes:
- Cullet and other glass waste in non-dispersible form – see **B2020**
- Ceramic fibres – see **B2030**
- Lithium-tantalum glass scrap and lithium-niobium glass scrap – see **B2040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Fibre glass waste with hazardous contamination – unlisted waste or classified according to contaminants in list A (Amber List of waste)
- Glass grinding sludge or glass dust – unlisted waste
- Lead glass dust, sludge – see **A1020** or **A2010**
- Ceramic-based fibres of physico-chemical characteristics similar to those of asbestos – see **RB 020**
- Waste asbestos (dusts and fibres) – see **A2050**

Ceramic wastes

Designation: **Green List GF 010**

Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use)

Physical characteristics: solid

Other designations: broken ceramics, waste ceramic products (broken crockery), bricks, roofing tiles, wall or floor tiles, terracotta waste

EWL designation:
10 12 06 discarded moulds
10 12 08 waste ceramics, bricks, tiles and construction products (after thermal processing)
17 01 02 bricks
17 01 03 tiles and ceramics
16 11 04 other linings and refractories from metallurgical processes other than those mentioned in 16 11 03*
16 11 06 linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05*

Detailed description:
- Broken ceramic products (e.g. crockery)
- Roofing tiles, bricks, bricks, wall and floor tiles
- Linings and refractories from metallurgical and non-metallurgical processes demonstrably without hazardous characteristics (e.g. linings and refractory from steel processing)

Demarcation from other, similar Green List wastes:
- Wastes of refractory linings, including crucibles, originating from copper smelting (without contamination or hazardous characteristics) – see **B1100**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Furnace linings from metallurgical or non-metallurgical processes with hazardous contamination – unlisted waste or listed according to the contaminants in list A (Amber List of waste)
- Storage bricks from the electric night storage heating (often 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 in list A (Amber List of waste)
- Chamotte wastes with hazardous contamination – unlisted or maybe classified according to the contaminants in list A (Amber List of waste)
- Wastes of lime sandstone and natural stone from construction sites – unlisted

Ash and slag from coal-fired power plants

Designation: **Green List GG 030**

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

Physical characteristics: solid

Other designations: bottom ash and slag from coal-fired power plants

EWL designation:
10 01 01 bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04*

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 other, similar Green List wastes:
- Coal-fired power plants fly ash– see **GG 040**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Bottom ash and slags from waste incineration and pyrolysis plants (including ash from coal-fired power plants that co-incinerate waste) – in the case of ash from municipal waste incineration plants, see **Y47** (residues from the incineration of household waste), otherwise unlisted waste or listed according to the hazardous contaminants in list A (Amber List of waste)
- Bottom ash and slags from incineration plants for hazardous waste, from the incineration of paper and wood industry wastes, bio-mass incineration plants as well as facilities other than coal-fired power plants – unlisted waste or listed according to the hazardous contaminants in list A (Amber List of waste)

Coal-fired power plant fly ash

Designation: **Green List GG 040**

ex 2621 Coal-fired power plants fly ash

Physical characteristics: solid

Other designations: power plant fly ash; fly ash (coal-fired power plants)

EWL designation:
10 01 02 coal fly ash

Detailed description:
The use of fly ash in the Austrian cement and concrete industry is covered, for example, by European Norm EN 450-1, Fly ash concrete, Part 1: Definition, specifications and conformity criteria

Requirements for shipment to Switzerland
In Switzerland, the following provisional reference values have been established for fly ash from coal firing (power plants) that, following the Green List procedure, may be imported from OECD Member Countries without notification for the purposes of recovery as construction material:

Parameter	Reference value
antimony	10 mg/kg
arsenic	40 mg/kg
lead	300 mg/kg
cadmium	2 mg/kg
chromium (total)	300 mg/kg
chromium(VI)	2 mg/kg
copper	200 mg/kg
nickel	200 mg/kg
mercury	1 mg/kg
thallium	3 mg/kg
zinc	1000 mg/kg
tin	30 mg/kg
barium	1500 mg/kg
beryllium	10 mg /kg
cobalt	100 mg/kg
selenium	5 mg/kg
vanadium	300 mg/kg

Demarcation from other, similar Green List wastes:
- Bottom ash and slag tap from coal-fired power plants – see **GG 030**

Demarcation from other Amber List wastes or unlisted waste (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 pyrolysis plants, from the paper and wood industry, bio-mass incineration plants or oil firing plants (containing vanadium) – see **A4100**
- Coal-fired power plant fly-ash that co-incinerate other wastes or that exhibits hazardous characteristics – see **A2060**
- Dusts and residues from gas cleaning systems of copper smelters – see **A1100**

Plastic wastes (polymers of vinyl chloride)

Designation: **Green List GH 013**

Solid plastic wastes: Polymers of vinyl chloride

Physical characteristics: solid

Other designations: abbreviation of polyvinyl chloride: PVC
Well-known trade names for hard PVC include *Astralon*, *Luvitherm*, *Rhenadur*, *Rhenalon*, *Trovidur* and *Vinidur*. Soft-PVC is sold by the name of *Acella*, *Adretta*, *Alkar*, *Coroplast*, *Tautex*, *Koresal*, *Mipolam*, *Pegulan* and *Renolit*, among others.

Abbreviation of polyvinylidene chloride: PVDC, Trade name: Saran

EWL designation:
02 01 04 plastic waste (except packaging)
07 02 13 plastic waste
12 01 05 plastic 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

Detailed description:
Polyvinyl chloride (PVC) is a hard, brittle plastic that must be softened by adding plasticisers and stabilisers. PVCs are subdivided into soft *PVC* (PVC-P) and hard *PVC* (PVC-U).

- PVC blister waste e.g. “tablet packaging waste” (PVC-aluminium composites), to the extent not contaminated with hazardous substances
- Scrap windows and window parts made of PVC (without glass)
- PVC pipe and profile waste as well as polyvinylidene chloride waste (PVDC wastes) in the form of sheets, pipes, etc.
- Diskettes: These consist of two types of plastic (PVC and polyester); if the PVC is separated out, classification under **GH 013** PVC is possible; if both types of plastic are present, entry **B3010** should be used
- Waste of artificial leather (soft PVC)
- Hard foam made of PVC, to the extent that it is demonstrably free of CFCs (and also free from CFCs, HCFCs, and HFCs)

Demarcation from other, similar Green List wastes:

- All other plastic wastes (not halogenated or fluorinated) except polymers of vinyl chloride– see **B3010**

Demarcation from other Amber List wastes or unlisted waste (notification):

- PVC paste – unlisted waste
- PVC separators from lead-acid batteries (usually contaminated with lead compounds) – see **A1160**
- PVC-aluminium blister packaging that still contain drug waste or mixed drug-medication packages with contents– see **A4010**
- PCB-containing cable sheath waste made of PVC– see **A1190**

Nota bene: The use of plastic waste fractions as cover material for sludge ponds, landfills etc is not considered a recovery but a disposal operation (notification obligation)

Bristles and animal hair

Designation: **Green List GN 010**

ex 0502 00 Waste of pigs', hogs', or boars' bristles or of badgers hair and other brushmaking hair

Physical characteristics: solid

Other designations: animal hair; animal bristles

EWL designation:
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

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 pigs', hogs' or boars' bristles and hair or of badger hair and other animal hair used to make brooms, hair brushes and paint brushes

Demarcation from other, similar Green List wastes:

- Fellmongery waste (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 **GN 020**
- Waste of human hair– see **B3070**

Demarcation from other Amber List wastes or unlisted waste (notification):

- Fellmongery waste with hazardous contamination (hexavalent chromium, biocides, infectious substances) – see **A3110**

Wastes of categories 1 and 2 under EC Regulation No. 1774/2002 as amended are exempt from the provisions of EC Waste Shipment Regulation No. 1013/2006, especially since such waste is already subject to the strict permit requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.

Horsehair waste

Designation: **Green List GN 020**

ex 0503 00 Horsehair waste, whether or not put up as a layer with or without supporting material

Physical characteristics: solid

Other designations: horsehair waste

EWL designation:
02 02 02 animal-tissue waste
02 02 03 materials unsuitable for consumption or processing
04 01 09 waste from dressing and finishing
04 01 99 waste not otherwise specified

Detailed description:
In the case of horsehair waste (possible with scraps of skin), whether or not put up as a layer with or without supporting material, it must contain only material that falls into category 3 of the EC Animal By-product Regulation No. 1774/2002 as amended.

Demarcation from other, similar Green List wastes:
- Waste of pigs', hogs' or boars' bristles or of badger hair and other brushmaking hair – see **GN 010**
- Fellmongery waste (furs) – see **B3110**
- Waste of wool or fine or coarse animal hair – see **B3030**
- Waste of human hair – see **B3070**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Fellmongery waste with hazardous contamination (hexavalent chromium, biocides, infectious substances) – see **A3110**

Wastes of categories 1 and 2 under EC Regulation No. 1774/2002 as amended are exempt from the provisions of EC Waste Shipment Regulation No. 1013/2006, especially since such waste is already subject to the strict permit requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.

Parts of birds, feathers

Designation: **Green List GN 030**

ex 05 05 90 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

Physical characteristics: solid

Other designations: down and father waste, waste of parts of birds (feather meal)

EWL designation:
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

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.
- Feather meal may also be subsumed in this category

Note: Processed animal proteins (feather meal), even of category 3, resulting from rendering facilities, are subject to veterinary permit requirements according to EC Animal By-product Regulation No. 1774/2002 as amended and therefore are exempt from the provisions of the EC Waste Shipment Regulation.

Demarcation from other, similar Green List wastes:
- Waste of pigs*, hogs' or boars' bristles and hair or of badger hair and other brushmaking hair – see **GN 010**
- Waste of wool or fine or coarse animal hair – see **B3030**

Demarcation from other Amber List wastes or unlisted waste (notification):
- Fellmongery waste with hazardous contamination (hexavalent chromium, biocides, etc.) – see **A3110**

Waste of categories 1 and 2 under EC Regulation No. 1774/2002 as amended are exempt from the provisions of EC Waste Shipment Regulation No. 1013/2006, especially since such waste is already subject to the strict permit requirements of the EC Animal By-product Regulation No. 1774/2002 as amended.