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Pilot study on statistics on the import and export of waste in Germany

Pursuant to Article 5(1) of the Regulation (EC) No 2150/2002 of the European Parliament and the Council of 25 November 2002 on waste statistics

Final report

by

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Harald Junker

Umweltbundesamt
Focal Point Basel Convention

Assisted by

FFact Management Consultants
Rijen, The Netherlands

Co-financed by

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Executive summary

On 30 December 2002 Regulation (EC) N° 2150/2002 of the European Parliament and the Council of 25 November 2002 on waste statistics[1] entered into force. It was last amended by Regulation 574/2004 of 23 February 2004. This Regulation (further referred to as the waste statistics Regulation) sets the framework for the production of statistics by the EU Member States on generation, recovery and disposal of waste.

A number of issues of more technical nature could not be determined completely during the preparation of the Regulation and it is specified that Member States should do pilot projects on those issues. The Commission has drawn up a program for these pilot studies. Aim of this program is to develop methodologies to obtain regular data also in relation to these remaining issues. The results of the pilot studies should allow the Commission to make proposals for implementation measures. One of these pilot studies on statistics on import and export of waste was done by the Umweltbundesamt in Berlin, Germany.

The aim of the study was to recommend a methodology on the basis of which Germany could fulfil its obligations under the waste Statistics Regulation regarding import and export of waste and to provide other Member States and the Commission with information to assess the potential to use this method or similar methods for the production of their statistics. The study used the following stepwise approach:

1. Specification of the information needs.
2. Identification of potential sources of data.
3. Assessment of the suitability of the data these sources could provide to fulfil the information needs.
4. Conclusions and recommendations for a methodology.

The information needs were specified as follows:

1. All waste in the scope of the Regulation should be covered, with the exclusion of wastes for which the information on import and export is provided under the waste shipment Regulation.
2. Member States should provide information with the following characteristics:
   - waste types according to the (aggregated) EWCSTAT
   - quantities imported and exported
3. This information should be transmitted to the Commission on a two-yearly basis, within 18 months of the end of the reference year.

The following potential sources of data were identified and described and their suitability for providing the required data was assessed:

1. Statistics on foreign trade
2. German waste statistics
3. Other administrative sources based on German waste legislation
4. Other sources based on EU waste legislation

It was concluded that the foreign trade statistics provided for the best data on import and export of the following waste streams:

- Metallic waste
- Plastic waste

[1] OJ L332, 9.12.2002, p1.

- Paper and cardboard waste
- Glass waste
- Textile waste
- Combustion wastes (ashes and slags)

The statistics regarding the import and export of these wastes could be based upon data from a selection of codes from the Combined Nomenclature that are included in the description of the methodology in chapter 4 of the report.

For the other waste streams the data from the statistics on foreign trade can not be used directly. For a number of waste streams additional research might result in factors that would allow the use of the trade data. For other waste streams the data have to come from other sources.

The other potential sources of information which were assessed during the project do not provide for suitable additional information that could be used immediately, apart from the data reported under the obligations of the EU packaging Directive. Development of a methodology for these other waste streams does require changes to the current legal framework in Germany for the collection of data.

1. Introduction

On 30 December 2002 Regulation (EC) N° 2150/2002 of the European Parliament and the Council of 25 November 2002 on waste statistics[2] entered into force. It was last amended by Regulation 574/2004 of 23 February 2004. This Regulation (further referred to as the waste statistics Regulation) sets the framework for the production of statistics by the EU Member States on generation, recovery and disposal of waste.

A number of issues of more technical nature could not be determined completely during the preparation of the Regulation and it is specified that Member States should do pilot projects on those issues. The Commission has drawn up a program for these pilot studies. Aim of this program is to develop methodologies to obtain regular data also in relation to these remaining issues. The results of the pilot studies should allow the Commission to make proposals for implementation measures.

The issues to be covered by pilot studies are:

1. import and export of waste for which no data is collected under Council Regulation (EEC) N° 259/93 on supervision and control of shipments of waste (further referred to as: waste shipment Regulation);
2. waste from agriculture, forestry and fishing;
3. packaging waste
4. preparatory waste treatment operations

During the summer of 2003 the EUROSTAT published the terms of reference of these pilot studies and Member States were invited to present proposals for conducting these studies. On behalf of Germany, the Federal Environmental Agency (Umweltbundesamt, UBA) in Berlin prepared such a proposal for the pilot study on import and export of waste. This proposal was awarded a grant of nearly € 40.000 and the project started in December 2003.

Project leaders for the pilot project are Dr. Joachim Wuttke and Mr. Harald Junker of the Federal Environmental Agency. The Agency was assisted in the execution of the project by Mr. Kees Wielenga and Mr. Fred Soomers of FFact Management Consultant in Rijen, the Netherlands.

The main objective of the pilot project was to recommend a methodology that would allow Germany to obtain regular data on import and export of waste and to fulfil its obligations under the Regulation on waste statistics. Germany has a particular interest in the issue of import and export of waste in this context. Apart from the fact that data on import and export are included in the scope of the Regulation on waste statistics under Article 1, which is of application to all Member States, Germany also needs data on export of waste to fulfil the requirements on data collection on generation of waste. Germany has developed its statistical system for waste management statistics on the basis of a survey covering the facilities that have a licence to dispose or recover waste. These companies provide the information about the waste generated by sector as well as on the treatment of waste. These amounts explicitly specify the waste imported into Germany. However, in order to be able to provide data on total amount of waste generated in Germany, the amount of waste which is exported by the waste generator must be known as well. Other Member States that have opted for a similar approach as Germany will have the same interest in data on export.

This pilot study is, apart from this national interest for Germany, also important for the EU as a whole. A methodology to produce statistics on import and export of waste that is suitable for Germany should also provide information for the Commission and other Member States on the potential for using the same or similar methods for the production of their statistics.

[2] OJ L332, 9.12.2002, p1.

The project used the following stepwise approach:

1. Specification of the information needs.
2. Identification of potential sources of data.
3. Assessment of the suitability of the data these sources could provide to fulfil the information needs.
4. Conclusions and recommendations for a methodology.

During the project a workshop was organised on 8 and 9 March in Berlin with representatives of a number of Member States and EUROSTAT, to discuss the preliminary findings of the project and to exchange information on the potential of data sources and to discuss the potential to provide EU wide solutions.

The interim results were also presented during a meeting of the Working Group on Statistics of the Environment, Sub-Group waste on 29 March at EUROSTAT in Luxembourg.

In this report the results of the pilot study are presented. Chapter 2 describes the general background of the Regulation on waste statistics and identifies the information needs regarding import and export of waste in the context of this Regulation.

Chapter 3 describes the sources of data that were identified and provides detailed information about their characteristics, such as methodological issues, coverage and data quality as well as an assessment of their suitability to complement the data gathered under the waste shipment Regulation.

Chapter 4 contains the conclusions and recommendations for a methodology.

2. Background and information needs

2.1 General framework

The waste statistics Regulation requires Member States to collect data on generation, recovery and disposal of waste and to produce statistics on the basis of these data. Member States are also required to transmit these data to the Commission to allow the production of Community statistics. The Regulation provides for the framework for the data collection and the production of these statistics.

All wastes are covered by the Regulation with the exclusion of radio-active waste, which is already covered by other legislation. There are differences in the Regulation between the characteristics of the statistics on generation of waste and the statistics on recovery and disposal of waste. These are specified in the different Annexes to the Regulation.

The framework requirements for statistics on the generation of waste are included in Annex I of the Regulation. The statistics have to cover all waste generated by activities according to NACE Rev 1, sections A to Q as well as waste generated by households in a breakdown into 20 categories. This means that al economic activities are covered and that also household waste has to be included.

The statistics have to be produced according to a breakdown into waste categories. This breakdown (provided by the statistical classification EWCSTAT) consists of 48 categories of wastes. Per waste category the amount of waste generated should be compiled for each of the 20 categories of economic activities. The information generated according to this Annex therefore requires data for 960 data cells Probably a large number of these cells will be empty because not all waste categories are generated by all 20 types of activities.

The first reference year for reporting is the year 2004 and data are to be furnished every second year. The data for 2004 are to be transmitted before July 2006.

The framework requirements for statistics on recovery and disposal of waste are included in Annex II of the Regulation. These statistics cover recovery and disposal facilities which run operations as specified in the Annex. The description of the operations are derived from the Annexes to Directive 75/442/EEC on waste. Not all operations are included. So-called preparatory treatment operations (such as sorting, temporary storage, repacking and physico-chemical treatment prior to disposal) are excluded (for the time being) to limit double counting of waste streams, first by the pre-treatment installation and subsequently by the final recovery or disposal installation.

The breakdown into waste categories in Annex II is also based upon the EWCSTAT but for the purpose of Annex II these have been aggregated even further. Moreover, incineration (both disposal and recovery), ‘other’ recovery and ‘other’ disposal all have slightly different aggregations. For incineration 12 categories of waste are defined, for ‘other recovery 18 and for ‘other’ disposal 15.

Apart from the amounts of waste treated, per category of operations and per waste category, also the number of facilities (per NUTS 2 level) and the treatment capacity (Per NUTS 2 level) have to be provided. This subject is not of particular relevance for this pilot study.

Also for recovery and disposal the first reference year for reporting is the year 2004 and data are to be furnished every second year. The data for 2004 are to be transmitted before July 2006.

Data collection by Member States may be based upon the classification in Commission Decision 2000/532/EC establishing a List of Waste. Annex III of the Regulation (as revised) provides for the correspondence table between the List of Waste and EWCSTAT.

In summary, on the basis of the requirements in the Regulation, statistics will be produced on the one hand on

1. generation of all waste categories by all economic activities and households;

and on the other hand on

2. recovery and disposal of all waste in a restricted number of installations.

2.2 Data needs regarding import and export of waste

In the preamble of the Regulation it is stated that the statistics are necessary in order to be able to monitor the implementation of waste policy. In particular monitoring of compliance with the principles of maximisation of recovery and safe disposal is mentioned. This implies that at community level and on the level of Member States it should be possible to make a link between the amounts of waste generated and the amounts of waste recovered and disposed of.

The structure of the Regulation does not allow to follow waste streams from the generating process to the recovery and disposal operation. In order to do that, Annex I would have to include for each waste stream and each generator also the information about the destination of the waste.

On the level of the waste streams a link between generation and recovery and disposal is relevant in order to be able to monitor implementation of waste policy. This would allow e.g. to monitor the share of paper waste or glass is recycled and developments thereof over time.

Such information can only be obtained if information is collected on imports and export of waste. E.g. Member States that do not have recycling capacity for a certain type of waste will never be able to monitor achievements on recycling of this waste generated in their country unless it is known how much of this waste is exported for recycling. Member States that import large quantities of certain types of waste would no longer be able to monitor progress of management of the waste generated in their own country, unless they know how much waste was imported.

As this type of assessment is envisaged as one of the potential uses of the Community statistics information regarding import and export is required. This information should be consistent with the contents of Annexes I and II, particularly regarding the aspects related to the scope and coverage of wastes, waste categories for the classification of waste, reference years and periodicity.

For certain types of waste the waste shipment Regulation provides for a mechanism that allows to obtain the above-mentioned information. Article 1(3) of the waste statistics Regulation specifies that only data on import and export that are not collected under the waste shipment Regulation are included in the scope. This implies that Member States do not have to report the data included in this report according to the waste shipment Regulation twice. These reports only cover data on waste that are subject to a notification. Important waste streams are however imported and exported without notification, in particular a number of non-hazardous wastes that are shipped for recycling or other forms of recovery. Information on these imports and exports have to be included under the provisions of the waste statistics Regulation. This information should therefore fulfil the following requirements.

1. All waste in the scope of the Regulation should be covered, with the exclusion of wastes for which the information on import and export is provided under the waste shipment Regulation.

2. Member States should provide information with the following characteristics:

- waste types according to the (aggregated) EWCSTAT
- quantities imported and exported

3. This information should be transmitted to the Commission on a two-yearly basis, within 18 months of the end of the reference year.

The objective of this pilot study is to identify potential sources of information that could be used to provide information for the types of waste where the waste shipment Regulation does not provide the necessary information and to recommend a methodology to obtain regular data.

The waste statistics Regulation does not prescribe any particular method for the collection of data but allows the following:

- Surveys,
- Administrative or other sources, such as the reporting obligations under Community legislation on waste management,
- Statistical estimation procedures on the basis of samples or waste-related estimations, or
- Combinations of these means.

This provides for a certain flexibility when formulating the recommendations for a methodology for the collection of data on import and export of waste and also for the use of multiple sources of data if required.

Before entering into the detailed description of the potential sources of data a more in-depth description of the data obtained from the waste shipment Regulation is provided in the next paragraph.

2.3 Regulation N° 259/93 on shipment of waste

This Regulation provides for the framework for the supervision and control of transboundary movements of waste. It is the instrument for the EU to implement the UN Basel Convention on the control of transboundary movements of hazardous waste and OECD Decision C(92)39/final on the control of transfrontier movements of wastes destined for recovery.
The Regulation sets up comprehensive framework of control provisions. This framework covers all waste types and provides for procedures to be followed for shipments of waste for recovery and for disposal, both between Member States as well as with countries outside the EU.

Certain types of shipment of waste are prohibited by the Regulation, e.g. the export of hazardous waste to countries out-side the OECD. In certain cases the Competent Authorities for the execution of the Regulation must receive a notification prior to the envisaged shipment. In other cases such a notification is not required. To determine the need for a notification three elements are important:

- The envisaged treatment of the waste, either disposal or recovery
- The country of origin and destination; in particular are both a Party to the Basel Convention or not and are both member of the OECD or not.
- In the case of recovery, the type of waste according to the Annexes in the Regulation (the lists developed by the OECD and generally called green, amber and red list).

Notifications are required in the following cases:

- Import or export of waste destined for disposal operations
- Import and export of hazardous waste for recovery involving non-OECD countries (insofar not subject to a shipment prohibition).
- Import and export of non-hazardous waste for recovery involving non-OECD countries if these partner countries have requested such notification procedure.

- Import and export of wastes for recovery inside the OECD for wastes included in the amber and red list.

In particular imports and exports of non-hazardous waste destined for recycling and energy recovery inside the OECD (and therefore also inside the EU) do not require notification. The Regulation only requires that during transport a form is available indicating the origin, destination and the type of waste and the amounts involved.

The Competent Authority of the Member States has to present a yearly report on the transboundary movement of wastes subject to notification to the Secretariat of the Basel Convention. This report, which is also sent to the European Commission, contains amongst others the information about the type of waste and the amounts shipped, the country of origin, transit (if applicable) and destination and the treatment of the waste in the country of destination.

For Germany this report compiled by the UBA in Berlin on the basis of information provided by the different Competent Authorities for transboundary movement of waste in Germany, which are the Länder.

For the classification of waste in the report information about several classification systems is available. Germany provides in its report information about:

- Y-codes according to the Annexes I and II of the Basel Convention as well as H-codes to indicate the hazard characteristic of the waste (if applicable)
- The classification according to Annex VIII (hazardous waste) or Annex IX (non-hazardous waste) of the Basel Convention.

The notifications also provide information according to:

- OECD lists (code in the Green- Amber- or Red list)
- Codes in the List of Waste (Commission Decision 2000/532/EC)

The use of these last two codes is not obligatory in the report and they are not systematically used in the report but this information could be added if required.

Type of waste	**Amounts in 1 000 tons**	
	Export	**Import**
hazardous waste[3]	224	1 089
municipal waste and incineration residues	43	194
non hazardous notified waste[4]	995	2 652
Total	1 263	3 934

Table 1. Import and export of waste subject to notification under the waste Shipment Regulation. Total amounts for Germany in 2002 (all amounts in tons). Source: UBA (2004)

[3] Includes hazardous waste according to the Basel Convention and additional wastes considered hazardous in Germany

[4] Consists mainly of non-hazardous wastes on the Amber list. Also approximately 44.000 tons of Green list wastes for which certain non-OECD countries requested a control procedure for the import into their country is included.

Some important waste streams in terms of amounts exported are included in table 2.

OECD-Code	LoW-Code	Description	Amount (tons)
AA 010	100202	Waste from the manufacture of iron and steel	374 722
AC 170	170201	Treated wood waste	186 309
AC 170	200138	Treated wood waste	103 007
AB 150	100105	Unrefined calcium sulphite and calcium sulphate from flue gas desulphurization (FGD)	64 904
GI 010	200101	Paper and cardboard (pursuant to Article 17(3) Waste shipment regulation)	38 529
Not listed	030310	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation	36 786
AC 170	191207	Treated wood waste	30 828
		Other	427 689
		Total	1 262 775

Table 2. Examples of the most important waste streams exported by Germany in 2002. Source: UBA report to the Secretatiat of the Basel Convention (2004).

Some important waste streams in terms of amounts imported are included in table 3.

OECD-Code	LoW-Code	Description	Amount (tons)
Not listed	191212	Other wastes (including mixtures of materials) from mechanical treatment of wastes	625 259
AC 170	170201	Treated wood waste	316 115
Not listed	150106	Mixed packaging	287 355
Not listed	170904	Mixed construction and demolition wastes	285 560
AC 270	190805	Sewage sludge	221 104
AC 260	020106	Manure, faeces	180 473
AA 010	100207	Waste from the manufacture of iron and steel	144 596
Not listed	030310	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation	143 949
Not listed	170503	Soil and stones containing dangerous substances	117 391
Not listed	030307	Mechanically separated rejects from pulping of waste paper and cardboard	108 120
Not listed	170504	Soil and stones other than those mentioned in 17 05 03	99 538
AB 020	190113	Waste from the incineration of household waste	90 333
AA 050	100308	Aluminium asches and residues	89 179
AB 020	190112	Waste from the incineration of household waste	87 558
AC 030	130205	Used oil	61 175
AD 160	200301	Household waste	59 712
AC 190	191003	Fluff - light fraction from automobile shredding	36 579
AC 170	200138	Treated wood waste	35 940
		Other	912 699
		Total	3 934 290

Table 3. Examples of the most important waste streams exported by Germany in 2002. Source: UBA report to the Secretatiat of the Basel Convention (2004).

Some additional examples of data from the report of Germany for 2002 to the Secretariat of the Basel Convention are included in Annex 1.

The waste classification used in the report differs from the classification in the waste statistics regulation. The data in the report are not directly comparable with those in the statistics. However, conversion into EWCSTAT is possible. A proposal for a conversion table for data from the Basel lists to EWCSTAT data is given in Annex 2.

Based upon this conversion table, the data in the report to the Secretariat of the Basel Convention have been transformed into the format as required under Annex I of the waste Statistics Regulation for the export of waste and into the format as required under annex II for the import of waste. A summary of the data on import is provided in table 4. The full dataset is included in Annex 2.

Type of Operation	Amount imported [1000 tons]
Disposal (other than incineration)	181
Incineration	1 204
Recovery (excluding energy recovery)	2 550
Total	3 934

Table 4. Summary of data on import from the German report to the Secretariat of the Basel Convention for 2002, reported in the format of Annex II to the waste Statistics Regulation. Source: UBA, 2004.

These data are available on a yearly basis and are produced in time to form the basis of statistics under the waste statistics Regulation. There is no need for additional surveys and the transformation of the data into the required format is not complicated. Production of these statistics therefore does not involve major additional costs.

Review of the waste shipment Regulation

A Proposal from the Commission for the revision of the waste shipment Regulation is currently under discussion in the European Parliament and the Council. This review is necessary because the OECD has changed its Decision and because the EU wants to take the opportunity to streamline and clarify a number of provisions in the Regulation. This review is not yet finalised. Therefore its impact on the provisions regarding import and export of waste in the context of the waste statistics Regulation cannot be fully assessed yet. However, most of the proposed changes are largely uncontroversial and therefore can be assessed already with some caution. Certain aspects may need further assessment after the finalisation of the review process of the waste shipment Regulation. The current status of the review process is that the European Parliament has finished its first reading. Council has started its discussions on the proposal and aims at reaching a common position by the summer of 2004. Provided that this planning is met it would be possible to finalise the procedure for the review before the end of 2004.

The main changes in the Regulation that have an impact on the waste statistics Regulation are the following:

- The OECD lists are replaced by the lists of Annex VIII and IX of the Basel Convention

- Article 19 of the Commission Proposal indicates the possibility for Member States to adopt national provisions to require transmission of data for statistical purposes on shipments of waste not covered by the notification obligations.

The potential impact of these changes for the information requirements under the waste statistics Regulation is assessed in the following paragraphs.

Change of classification

A change of classification is a rather fundamental change with a large potential impact on the data. This potential impact is therefore assessed carefully.

The OECD lists are more comprehensive than the Basel lists in particular for non-hazardous wastes. The amber list of the OECD does not only consist of hazardous wastes, but also of non-hazardous for which it was considered necessary to provide for a control procedure. Examples of these essentially non-hazardous waste include:

- Municipal waste
- Sewage sludge
- Pig manure

The Basel lists have as main objective to provide for a clear distinction between hazardous waste and non-hazardous waste. The OECD lists were developed to assess the risk associated with the transboundary movements. An approach based upon risk takes into account a number of factors, including the question of the hazardous character of the waste. But also factors such as the type of treatment the waste will undergo or its value provide indications of the risk associated with transboundary movement. An approach based upon risk can therefore lead to other conclusions for the need of control than an approach based upon hazard.

Within the OECD system it was the combination of the low value of sewage sludge and its potential use in agriculture were considered as factors that justified a control procedure, even though sewage sludge would be a non-hazardous waste in most cases. On the contrary, for certain catalysts from cars it was considered that the high value of the material was a sufficient safeguard for the proper management of the waste and that a notification and control procedure was not necessary in this case, even though some of the catalysts might be hazardous. In the Basel lists sewage sludge is not included and the applicable control procedure is therefore not determined. For hazardous catalysts the Basel lists would require a control procedure (and a ban on export to non-OECD countries as soon as the relevant amendment of the Convention is implemented).

However, in practise nearly all the hazardous wastes under Basel were also subject to control under the OECD system because the hazard of a waste was also considered one of the main determining factors to assess the risk under the OECD system. The cases where the two systems differ are rather exceptions and not the rule. The Basel lists and the OECD lists are in a large number of cases are similar or even the same.

Moreover, the Commission proposes to apply an obligation for notification and control to wastes included in the list of hazardous waste of the Basel Convention and also to maintain these obligations for a number of wastes currently included in the Amber list, but not covered by the lists of Basel (including the examples mentioned above). This limits the impact of the change to the Basel lists considerably.

The non-hazardous wastes as identified under the Basel convention in Annex IX were by and large derived from the green list of the OECD. Also this Basel list is less comprehensive than the green list. However, the Proposal from the Commission suggests to maintain a number of entries from the green list in the Annex for waste for which no notification is required for shipments for recovery.

The overall impression is that the change of classification system will not have an important effect on the amount of waste covered by the notification procedure. Also those wastes for which currently no notification is necessary and for which therefore the reports to the Basel Secretariat does not provide for information about the import and export remains largely the same.

Information requirements under the waste shipment Regulation

Article 19 of the Proposal specifies which information should accompany a shipment for which no notification and no prior agreement of the Competent Authorities is required. It also specifies that this information is recorded by the companies involved in the shipment and that the records are kept for a certain number of years. Finally, the Article also foresees that Member States may include provisions in their national legislation about the potential use of this information, e.g. for the purposes of inspection, enforcement, planning and statistics.

This implies that, if the Article remains in this form in the text which is finally adopted, Germany would have the possibility to include requirements in its national legislation to make the information included in the tracking forms for shipments of non hazardous waste available for statistical purposes. A decision by Germany to use this possibility should take into account the current legal framework governing data transmission requirements in Germany, the additional administrative burden for businesses and the Competent Authorities and the advantages that such a system would have compared to alternative systems to collect these data. This pilot study should provide information on such alternative systems and therefore provides some of the basic information that would allow Germany to further assess this issue after the completed revision of the waste shipment Regulation.

In the next chapter these alternative systems will be described and assessed.

3. Potential sources of information

The following potential sources of information have been identified during pilot study.

1. Statistics on foreign trade.

2. Current statistics on waste in Germany.

3. Administrative data related to waste management licences and planning requirements in German waste legislation.

4. Other sources related to the implementation of legislation for certain waste streams (e.g. packaging, end-of-life vehicles etc).

In this chapter the characteristics of these different data sources are described. This description has the following structure:

- general characteristics.
- examples of data.
- assessment.

For this assessment the following criteria for assessment are used:

- Are all relevant waste types included and do the data refer to waste only (scope and coverage).
- Is there any overlap with the data collected under the waste shipment Regulation.
- Does the information included in the data collection system reflect all trade for these types of waste.
- Is information available on the country of origin, the country of destination, the type of waste and the amounts and type of treatment in the country of destination.
- Is it possible to produce the relevant breakdown according to EWCSTAT.
- Is the information available in a two yearly frequency and in time.
- Does the production of statistics on import and export of waste require significant additional effort and/or money.
- Is this type of information available in and comparable with information available in the other Member States.

Based upon this assessment the elements of the data that might be suitable for a methodology in the context of the waste statistics Regulation are identified. A description of this method is given in chapter 4.

3.1 Data on waste in the statistics on foreign trade

3.1.1 General characteristics

In Germany a system for the production of statistics on foreign trade is implemented. The basis of this system is laid down in a number of EU regulations and therefore largely harmonized within the EU. The Federal Statistical Office in Wiesbaden is responsible for the data collection and the production of the Statistics for Germany.

These trade statistics are already produced for a large number of years. Traditionally they were based upon the declarations provided at the border to the customs services in the co-called Single Administrative Document (SAD). However, since the introduction of the Single European Market

these customs controls disappeared for intra EU trade and these declarations could no longer be used for the production of trade statistics inside the EU.

The EU regulation 3330/91[5] established a new framework for the production of the trade statistics inside the EU. The data are now provided directly to the Federal Statistical Office by the companies involved in intra EU trade, on a monthly basis. This system (called Intrastat) covers in principle all physical goods, including waste, passing borders inside the EU, but trade of certain goods is excluded and the system contains certain reporting thresholds, that aim to reduce the administrative burden for the companies. Some of these exceptions and thresholds are relevant to assess the potential use of these statistics for producing statistics on imports and exports of waste and will be described and analysed in detail in the following paragraphs.

Statistics on foreign trade including countries outside the EU are produced by the Federal Statistical Office on the basis of a framework provided in EU Regulation 1172/95. Since this trade is still subject to customs control the data collection for this system (called Extrastat) is still based upon the information provided to the customs service at the outer borders of the EU on the basis of the information included in the Single Administrative Document. Also for this system certain exceptions and reporting thresholds apply which will be described in more detail in the following paragraphs.

Type of data included

Both Intrastat and Extrastat contain data elements that are relevant for the statistics on import and export of waste. These data elements include:

- A description of the goods
- The amount traded in tons
- The country of origin and destination

There may be other information available, such as the value of the goods, but these are not directly relevant for statistics of import and export of waste in the context of the Regulation on waste statistics.

In some types of trade are excluded from the trade statistics. These exclusions are mentioned in Annex I of Commission Regulations N° 1669/2001 for Extra EU trade and in N° 1901/2000 for Intra-EU trade. The exclusions in Intrastat and Extastat are essentially the same and the description in this paragraph covers both. They are not all relevant for the relation between trade statistics and waste statistics and therefore not mentioned exhaustively. For the assessment of the potential use of the trade statistics to provide information the following exclusions and thresholds are the important.

The statistics do not cover trade with goods which have become unusable, or which cannot be used for industrial purposes, provided that they are not the subject of a commercial transaction. This excludes in particular trade of waste destined for disposal. Waste destined for continued use in the economy such as waste destined for recycling comes under the scope of the trade statistics insofar the trade is subject of a commercial transaction.

The statistics do not cover goods which are subject of non-commercial traffic between private persons. Also e.g. farmers living close to the borders do not have to present declarations for goods they obtain from the other
side of the border. This exclusion does not seem very relevant but may affect some of the trade with agricultural wastes.

The Regulation foresees that only companies that have trade exceeding a certain limit are required to provide information. These limits were included to reduce the number of companies that would have

[5] This regulation applied to the data as represented in this report. This Regulation is repealed in April 2004 and replaced by Regulation 638/2004 of 31 March 2004 (OJ L102, 7.4.2004, p.1.)

to report, without affecting the quality of the data too much. The Regulation foresees three thresholds: an exclusion threshold, an assimilation threshold and a simplification threshold. To determine if a certain threshold is exceeded the company has to check the value of the trade in the reference year with these thresholds. If the value of the annual trade is under the exclusion threshold a company does not have to provide any declaration. Above that threshold companies must provide information. For the purpose of this pilot study only the assimilation threshold is relevant. Companies exceeding this threshold have to report already on all the data elements relevant for the waste statistics, including type of goods, amounts and country of origin an destination.

Member States have the possibility to fix these thresholds themselves, depending on the structure of the trade in the different countries. The aim is to have sufficient coverage and at the same time reduce the number of companies that would have to provide information. If nearly all trade is done by a limited number of companies that export large amounts of goods the thresholds may be higher than in countries where trade is done by a large number of companies that trade smaller volumes. Because of the different structure inside the country for import and export the thresholds for dispatch and arrival may also differ within one country. Currently the lowest assimilation threshold is for arrival in Greece (in 2004 a threshold of € 29.000 applies). The highest threshold is for dispatch from Ireland (a threshold of € 635.000). An overview of the different thresholds that apply in 2004 is given in Annex 3. Waste typically has a relatively low or sometimes even a negative value and therefore these threshold values may represent significant amounts of waste and also significant differences in amounts of these wastes if Member States apply different thresholds.

The newly adopted Regulation 638/2004 does not fundamentally change system. One of the changes is relevant for this pilot study. The Regulation allows Member States to introduce an additional threshold to further reduce the burden for businesses. For companies that do not exceed this newly introduced threshold no data on the quantity of trade have to be transmitted, but only on value. The total volume of the trade covered by this threshold may not exceed 6% of the total trade.

Member States are required to estimate the rate of trade that is not included in the data due to the reporting thresholds, non response and confidentiality.

Germany use VAT data for the adjustment of the trade below the threshold. In the quality report on the foreign trade statistics (EUROSTAT, 2003) the information provided by member States on the impact of the thresholds and non-response on the share of trade covered by the trade statistics was summarised. In 2000 the % of value below the threshold in the German trade statistics was estimated to be 2,7% for the import and 1,5% for the exports. This is somewhat above the EU (weighted) average of 2,3% for import and 1,2% for export.

Also for the adjustment for non-response Germany uses VAT data. In 2000 the % of adjustment for non-response was 4,4% for imports and 0,6% for exports where the EU (weighted) average was 4,7% and 2,9% respectively. The adjustments for non-response went down considerably compared to 1998 (12,5% for imports and 5,2% for exports) suggesting considerable improvements of the response rate. (source: EUROSTAT, 2003).

Traders can have their trade figures suppressed if the published figures would enable them to be identified. The impact of confidentiality on the intra EU-trade statistics in Germany was estimated to be 1,4% for imports and 3,4% for 2001 (source: EUROSTAT 2003). For extra-stat the impact was 4,3% for imports and 3,1% for export. These figures are close to the EU-average figures.

It should be noted that the EU numbers are biased because 6 Member States did not adjust their figures at all. It should also be noted that these percentages apply to the value of all trade and therefore do not necessarily represent the rate for trade with waste.

Extrastat uses different thresholds. These are also much lower than the thresholds used in Intrastat. Member States have some freedom also to fix these thresholds themselves, but they should not exceed

either 1 tonne in mass or € 1000 in value. These are the values that currently apply for Germany. Moreover, Member States should adjust their data to incorporate trade below the threshold in their total results. It is therefore assumed that the data in Extrastat cover practically all trade.

Nomenclature

The trade statistics use the classification of the Combined Nomenclature (CN). This nomenclature includes the description of goods of the Harmonised System established by the World Customs Organisation, but is more detailed. The Harmonised system is based upon codes on 3 levels (6 digit codes) with approximately 5.200 different descriptions on the most detailed level. The Combined Nomenclature adds a 4th level (8 digits) and consists of over 10.000 different descriptions of goods. The system provides for a detailed description of the goods, based upon the nature of these goods. It was basically developed to facilitate the determination which customs tariffs should apply to the imported and exported goods, but also is used as the statistical nomenclature for the trade statistics.

Nearly 250 of these entries in the CN are (partly or entirely) for waste. An overview of the positions in the nomenclature that consist of or include waste are given in Annex 4. The coverage of the different waste streams by these codes will be assessed in depth in the next chapter.

Frequency and timeliness

Foreign trade statistics are compiled on a monthly basis. Preliminary results are published in the first half of the year following the reporting year and the final report is typically is prepared before the end of that year.

Accessibility and format.

The data of the foreign trade statistics are available in electronic format (CD-ROM). The data are also provided to EUROSTAT and included in the Intrastat and Extrastat system. Extraction of the relevant data is relatively easy once the relevant positions in the Combined Nomenclature are known. Some of the data provided by companies may however, be covered by confidentiality.

Asymmetries and discrepancies

Asymmetries in the data may be detected by comparing 'mirror' statistics. If one analyses the flow of trade between two countries it is possible to compare the data provided by the two countries. Imports from country A to country B as reported by the importing country are also recorded as Exports from country B to country A by the exporting country.
Discrepancies may occur due to differences in late or non-response between the countries, differences in reporting thresholds and differences in use of the Combined Nomenclature. Due to the low value of a large number of waste streams it is likely that the differences in thresholds have a larger impact on the data for waste than what would be expected for products of waste.

3.1.2 Some examples of results

Based upon the data included in the database on foreign trade data from the CN codes containing waste were extracted. Some examples of these data are included in table 5. They cover the imports into and exports out of Germany in tons for the years 2000 to 2002. They include a number of waste streams that are important in volume or of particular interest for recycling and are presented for illustrative purposes. A larger sample of years and waste types is provided in Annex 5

Description	2000		2001		2002	
	Export	Import	Export	Import	Export	Import
Waste from the agro food industry	137	597	99	397	87	306
Slag and ashes	2 539	1 039	3 392	984	2 453	1 351
Plastic wastes	353	80	331	85	363	103
Rubber wastes	79	70	91	86	102	94
Wood wastes	772	666	716	606	650	521
Paper and cardboard wastes	3 660	1 161	3 562	1 348	3 176	1 577
Textile wastes	354	149	366	163	381	180
Glass	283	144	359	123	373	137
Iron and steel scrap	6 869	3 519	6 599	3 560	6 881	3 805
Non ferrous metal scrap	937	1 007	914	891	894	1 012
Ships for breaking up	741	0	14	1	1	0
Miscellaneous	41	56	49	57	48	50
Total	16 024	8 489	16 491	8 299	15 408	9 135

Table 5. Amounts of waste imported into and exported from Germany of selected waste streams included in the German statistics on foreign trade. (all amounts in 1000 tons). Source: DESTATIS (2003), further processed by UBA.

In the next paragraph the suitability of the data to fulfil the data needs for import and export of waste in the context of the waste statistics Regulation is assessed using the criteria mentioned in the beginning of this chapter. The results of the assessment will be used to formulate conclusions as to the suitability of these data to be used as (part of) a recommended methodology for regular data collection.

3.1.3 Assessment of the suitability of the data for the compilation of statistics on import and export of waste

A number of important waste streams are covered in the statistics but not all and there is some overlap with the waste shipment Regulation

The Combined Nomenclature consists of approximately 10.000 different codes that describe goods. Out of these codes approximately 250 are codes that consist of or contain wastes. In Annex 4 an overview of all these codes is given. The selection of these codes was based upon a first assessment by the German Statistical office and additions proposed by UBA and a number of participants to the workshop in Berlin, in particular from Finland and the Czech Republic.

Not all of the entries in this table can be used for the compilation of statistics on import and export of waste. The number of suitable entries has to be reduced because:

- Some codes contain both wastes and products in the same code
- Some codes contain wastes that are fully or partially covered by the data reporting under the waste shipment Regulation.

All entries in Annex 4 have been checked on these aspects. Table 6 indicates per category in EWCSTAT how well these categories are represented in the Combined Nomenclature (CN) and to what extend they overlap with the data collection under the waste shipment Regulation (WSR). Only when the coverage of waste in the Combined nomenclature is good and when there is no overlap with

the data collected under the waste shipment Regulation the trade statistics can be used in the context of the waste statistics Regulation.

EWCSTAT Code	Description	Coverage in CN	Overlap with WSR	Trade statistics can be used to complement WSR data
1.1	Solvents	Good	Yes	No
1.2	Acid, alkaline and saline waste	Partly	Yes	No
1.3	Used oil	Good	Yes	No
1.4	Spent catalysts	Partly	Partly (hazardous catalysts)	No
2	Chemical preparations waste	Partly	Yes	No
3	Other chemical wastes	Partly	Yes	No
4	Radio-active waste	Good	No	Out of scope[6]
5	Healthcare waste	Good	Yes	No
6	Metallic wastes	Good	No	Yes
7.1	Glass wastes	Good	No	Yes
7.2	Paper and cardboard wastes	Good	No	Yes
7.3	Rubber wastes	Partly (mixed with products)	No	No
7.4	Plastic wastes	Good	No	Yes
7.5	Wood waste	Good	Partly (treated wood)	No
7.6	Textile waste	Good	No	Yes
8.1	Discarded vehicles	Partly (mixed with products)	Partly (non-emptied elvs)	No
8.2	Electric and electronic equipment	Partly (mixed with products)	Partly (hazardous equipment)	No
8.3	Bulky household equipment	Partly (mixed with products)	No	No
8.4	Discarded machines	Partly (mixed with products)	No	No
9.11	Animal waste	Partly (mixed with products)	No	No
9.12	Plant waste	Partly (mixed with products)	No	No
9.2	Green waste	No	No	No
9.3	Manure	No	Yes	No
10.1	Household waste	Yes	Yes	No
10.2	Mixed materials	Partly	No	No
10.3	Sorting residues	No	No	No

[6] Radio-active waste is excluded from the scope of the waste statistics Regulation and the information on import and export is therefore not relevant.

EWCSTAT Code	Description	Coverage in CN	Overlap with WSR	Trade statistics can be used to complement WSR data
11.1	Waste water treatment sludges	Yes	Yes	No
11.2	Sludges from purification of drinking waster and process water	No	Yes	No
11.3	Dredging spoil	No	No	No
11.4	Cesspit contents	No	No	No
12.1	Construction and demolition waste	No	No	No
12.2	Asbestos waste	No	Yes	No
12.3	Waste of naturally occurring minerals	Partly	Yes	No
12.4	Combustion wastes	Yes	Partly (hazardous slag and ash)	Yes
12.5	Various mineral wastes	Unclear	Partly	No
12.6	Contaminated soils and polluted dredging spoils	No	Yes	No
13	Solidified, stabilized and vitrified wastes	No	Yes	No

Table 6. Coverage of EWCSTAT categories by CN entries and overlap with data included in the waste shipment Regulation

The assessment in the tables shows that the trade statistics provide for a suitable supplement for the data on the waste shipment regulation for metallic wastes, glass waste, paper and cardboard waste, plastic waste, textile waste and combustion waste (in particular for metal containing slags and ashes).

For animal and plant waste and residues the trade statistics provide for additional information, however it is not possible to distinguish wastes and residues suitable for animal feeding and those not suitable for animal feeding. The first category is most likely a product and not a waste. The data from the trade statistics can therefore not be used as such to report on import and export of waste.

For wood waste the trade statistics cannot make a distinction between treated and untreated wood waste. For treated wood the waste shipment Regulation provides for the data. Untreated wood cannot be distinguished separately in the Combined Nomenclature.

For most of the end-of-live products, that have become subject to waste legislation and that are therefore included in the EWCSTAT classification for which the statistics would have to be produced, the Combined Nomenclature does not provide for a good distinction between waste and products.

E.g. for pneumatic tyres, a distinction is made between ‘new’ (CN codes 4011), ’retreaded’ (CN codes 4012 11 – 19) and ‘used’ tyres (CN code 4012 20). The category ‘used’ tyres however, may contain both tyres destined for continued use (part-worn tyres) and waste tyres, destined for recovery or disposal. It therefore does not distinguish between waste and products. These data from the trade

statistics can not be used for production on waste unless it is possible to make an estimation about the share of waste tyres covered.

The same applies to motor vehicles. Cars are included in the codes 8703 21 to 8703 24 to distinguish the different cylinder size classes. These four positions are each subdivided in 8703 21 10 for new cars in that category and 8703 21 90 of used cars. Used cars however can include both second hand cars and vehicle wrecks and these positions therefore cannot be used for tracking import and export of waste.

For electrical and electronic equipment the situation is even more complicated. In the Combined Nomenclature, this group of products is included in Chapter 85 consisting of some 655 positions (at 8 digit level). The codes starting with 8548 are designated for waste. They include a specific section (8548 10) for spent (that is: waste) batteries and accumulators. The data on import and export of hazardous batteries are included in the data from the waste shipment Regulation. These therefore largely overlap with each other.

Apart from the batteries also two types of waste are included in 8448 90: 8548 9010 includes waste and scrap from (computer) memories (e.g. D-RAMs). Entry 8548 9090 is a catch all for batteries and accumulators not covered by 8548 10 as well as for electrical parts of machinery or apparatus. In particular the scope of this last entry should be further clarified. It could include e.g. printed circuit boards. In a wide interpretation it would cover the major part of electrical and electronic equipment. However, it is unclear if this wide interpretation is envisaged. If this is the case, all equipment would be covered by this code (including the wastes subject to notification under the waste shipment Regulation). If not the majority of the waste equipment would be included in the 655 positions included in Chapter 85.

There are no codes in the Combined Nomenclature for garden and kitchen waste imported and exported for composting. Therefore the trade statistics cannot be used for these waste streams.

The EWCSTAT category of mixed materials is very heterogeneous. Apart from mixed municipal waste which is covered by the Combined Nomenclature it is at the moment not possible to assess the correspondence of codes in the Combined Nomenclature with this EWCSTAT category. Municipal waste is covered by the data in the waste shipment Regulation. For the other mixed materials it is likely that most of these materials would not be listed in the annexes in the waste shipment Regulation and therefore be subject to notification anyway. Therefore the lack of coverage of this EWCSTAT category in the CN does not necessarily constitute a major problem.

Uncontaminated dredging spoil and the sorted mineral fractions of construction and demolition waste are not covered by the data in the waste shipment Regulation nor by the trade statistics.

The data on trade do not contain information about waste destined for disposal because these qualify as trade with goods which have become unusable, or which cannot be used for industrial purposes, provided that they are not the subject of a commercial transaction, one of the specific exclusion clauses of the trade statistics. All shipments for disposal are fully covered by the data based upon notifications under the waste shipment Regulation and therefore overlap between the two datasets on this point should be very limited.

The data on waste do cover most but not all trade

Due to the differences in nomenclature it is difficult to assess if the identified waste codes in the combined nomenclature cover all the waste included in the statistical nomenclature EWCSTAT. In general for the materials traditionally traded for recycling, such as waste paper, metal scrap, glass etc. this seems the case. For other materials (such as slags and ashes) this is less clear.

Even for the waste streams that are well covered, the problem of the assimilation threshold is relevant. Waste generally has a low value and in some cases even a negative value. Since the assimilation threshold is based upon value of the trade this poses a particular problem with waste data. The thresholds determined with the aim to cover the in principle 97% of the trade. This rate is nearly met by Germany (see par 3.1.1). For products this implies that with these value thresholds only very limited amounts of trade are excluded. For waste trade below the value thresholds however may represent large quantities of waste. The amounts of waste representing the German threshold value of €200.000 are indicated in Annex 6 for a number of waste types included in the Combined Nomenclature. For a number of important waste streams the weighed average of this threshold is indicated in table 7.

Waste type	Value in € per ton		Number of tons representing € 200.000	
	Export	Import	Export	Import
Steel	150	139	1 333	1 439
Non ferrous	1 600	2 030	125	99
Glass	36	53	5 556	3 774
Textile	654	564	306	355
Paper	86	135	2 326	1 481
Plastic	644	279	311	717
Ashes and slags	23	51	8 696	3 22

Table 7. Average tonnage of selected waste streams representing the threshold value for reporting of €200.000. Reference year: 2002. Source Federal Statistical office, Wiesbaden (2003).

During the pilot study no studies were found that tried to assess the impact of the thresholds on the volumes of the reported waste in Intrastat.

The newly adopted Regulation 638/2004 on the intra EU trade provides for the possibility for Member States to install and additional threshold excluding more small traders from the requirement to report on quantities. They could report on value only. This additional threshold would reduce the coverage for waste because it is in particular the quantity that is relevant, not the value of the trade. Moreover, for trade in waste, providing the quantities of waste is not a particularly burdensome obligation, since the waste is typically traded by weight. On the other hand it would not seem to be very complicated to calculate the amount of waste covered by those companies for which only the value is provided on the basis of the average value per ton of the entry in the CN, provided that the amounts covered by this additional threshold are not too big.

The necessary information about type of waste, amounts, country of origin and destination is available

These elements are the core of the data in the trade statistics and are also the core elements required for the statistics on imports and exports of waste.

There is no direct information about the treatment of waste but some indications are available

The foreign trade statistics only include information about the country (and sometimes the region) of destination. For waste management statistics also the type of treatment waste would undergo in the country of destination would be a relevant issue. Since disposal is excluded from scope of the statistics (as mentioned above) it can be assumed the trade included in the statistics is for recovery. However, no specific research is found that could support this assumption firmly.

Recovery can include two different types of operations, namely recycling and energy recovery (use as a fuel). This information is relevant in the waste statistics. For a number of waste streams incineration can more or less be excluded as waste management option, in particular for metal scrap, ashes and slags and glass. If these are traded and the trade exceeds a value of €200.000 per year it must be destined for recycling.

However, for other waste streams recycling may be the likely destination, but use as a fuel is not excluded. This is the case for e.g. paper and cardboard, wood and plastic.

It is therefore impossible to determine with certainty the treatment the waste will undergo in the country of destination waste but is can be assumed that most of the reported trade in the statistics is destined for recycling. If information on the fate of the waste is required, estimates per waste streams should be developed.

Information about the waste generator is available for a limited number of cases

The trade statistics only indicate the type of material that is traded. No direct information is available which type of company is exporting the material and also no information is available which industry has generated the waste. If the data are used only to determine the amount of trade this is not a problem. If, as is the case for Germany, these data also should provide information about the generation of waste according to Annex I of the waste statistics Regulation, information about the economic activity generating the waste becomes relevant.

EUROSTAT has provided a correspondence table linking the codes in the Combined Nomenclature to the corresponding NACE codes. This correspondence is included in the table presented in Annex 4 for the CN codes containing waste. For CN codes that contain mainly production residues this reference may be reliable. However, for CN codes that contain mainly wastes from consumers the link is not reliable. This implies that for most of the ashes and slags and for textile waste (with the exclusion of worn clothes) the correspondence between CN code and the identified NACE code could be correct. For metal scrap, glass and paper and cardboard the correspondence is weak. For plastic it is moderate. The wastes reported under the CN codes for plastic waste contain mainly production scrap. These scraps not necessarily from the plastic production sector (NACE code 2416, division DG) as indicated in the correspondence table, but may also be generated by the plastic convertors (NACE code 2520, division DH). However, annex I of the waste statistics Regulation does not require a split between the NACE codes in division DG and DH. The CN codes could also include some plastic waste from agriculture, construction and demolition or car manufacturing. These cannot be separated from the wastes in division DG and DH.

In a number of cases the correspondence table between the Combined Nomenclature and the List of Waste codes (also included in Annex 4) may provide for some indications about the generating process.

However, in a large number of cases neither the correspondence table to the NACE codes nor the List of Waste code allow to determine the NACE code of the process that had generated the waste. This limits the suitability of the export data from the trade statistics to complement the data on the generation of waste as collected from waste treatment facilities to estimate the total generation of waste in the Member State in the breakdown in NACE codes as required in Annex I of the waste statistics Regulation.

The attribution of codes in the Combined Nomenclature to categories in EWCSTAT is in most cases not problematic

Both the Combined Nomenclature and EWCSTAT use a classification which is generally based upon the main material or product that constitutes the entry. The Combined Nomenclature is much more

detailed than EWCSTAT. Therefore it is generally not too difficult to attribute a code from the Combined Nomenclature to a single category in EWCSTAT. A proposal for such attribution of the relevant codes in the combined nomenclature is included in Annex 4.

Trade statistics are produced each year and are published in time to serve as a basis for the statistics required under the waste statistics Regulation.

The waste statistics regulation requires the compilation of statistics every two years only. The statistics on foreign trade are produced on a monthly basis. Based on these data a yearly report is produced and the data are therefore available in the required frequency to serve as a basis for statistics in the context of the waste statistics Regulation. The final statistics on foreign trade are generally published in the second half of the year following the year of data collection and these are therefore in time for the waste statistics, which requires data to be transmitted 18 months after the year for which the data are collected.

The additional costs for the production of statistics on waste are low

When assessing the costs for the production of the statistics only the additional costs are taken into account. Since the data are already included in the trade statistics, it is assumed that there are no additional costs for data collection. The only costs related to the production of import and export statistics from the trade are those for the extraction of the specific data regarding waste. Once the items in the Combined Nomenclature have been identified and attributed to the correct EWCSTAT category, the production of statistics is easy and involves only marginal additional costs.

The trade statistics can in principle be used in the same way by all Member States

The statistics on foreign trade are based upon the requirements included in EU Regulations and therefore largely harmonised. The classification system is based upon a classification determined by the World Customs Organisation and therefore largely harmonised on a global level. A methodology used by Germany based on these trade statistics could therefore in principle be used by all Member States if they would opt for using trade statistics to fulfil their data reporting requirements on import and export of waste (partly) by data from these statistics.

3.2 German statistics on waste

3.2.1 General characteristics

The basis for the data collection on generation and treatment of waste in Germany is the Umweltstatistikgesetz (UStatG) from 1994[7]. The main characteristic of the data collection on waste in Germany is that the survey mainly focuses on those companies that are required to have a licence according to the waste legislation, also for the compilation of statistics on the generation of waste by the different economic sectors. Previous experiences with surveys of the industry to collect data on waste generation had shown that these data were not very reliable and that the data collection was rather burdensome and expensive. Therefore it was decided to change this system and the current system was implemented.

The system consists of three different data collection activities.

- A survey of the private and public disposal and recovery companies

[7] Gesetz über Umweltstatistiken (Umwelstatistikgesetz –UStatG) of 21 September 1994 (BGBI.I S. 2530), last modification by Article 12 of the act of 19 December 1997 (BGBI. I S. 3158).

- Data compilation on hazardous waste, based upon the information in a tracking form (Begleitschein) which is required for hazardous waste under the German waste legislation for domestic movements (Nachweisverordnung under the Kreislaufwirtschaft und Abfallgesetz).
- Data collection on recovery of certain wastes at the industrial processes responsible for the recycling of these wastes (e.g. construction and demolition waste, soil, waste oil, plastic, paper and cardboard, packaging).

The data collection is decentralised in Germany. Data collection and the compilation of regional statistics is the responsibility of the statistical offices in the Länder. The Federal statistical office is responsible for providing methodological support to the statistical offices in the Länder and to compile national statistics.

The last fully documented dataset on waste generation and treatment is published in December 2003 and covers data of the year 2001.

Type of data included

The data collection system aims to get a good overview of generation and treatment of all wastes in Germany. Since the main source of data is companies that have a licence according to the waste legislation in Germany three main problems have to be solved.

1. The companies must provide an indication about the type of economic activity that had generated the waste.
2. The waste treated by German waste companies could be waste these companies imported and the amounts treated by German waste companies therefore may be an overestimation of the waste generation in Germany.
3. Waste may undergo different treatment steps before reaching its final destination (e.g. sorting, pre-treatment etc.) which would lead to double counting.

To reduce these problems the data collection has the following characteristics.

1. The companies report their data according to the European Waste Catalogue[8] (from 2002 onwards the List of Waste that has amended and replaced the European Waste Catalogue will be used). This waste classification uses both the generating process as well as the type of waste as basis for the descriptions. For most of the codes the origin of the waste can therefore be determined.
2. The companies are requested to indicate which part of the waste is delivered from outside of Germany. The statistics therefore provide separate information about imported waste.
3. Not only the amount of waste entering the facility is requested, but also the fate of waste leaving the facility. This allows to make mass balances and to reduce the amounts counted double, but it is not totally possible to exclude double counting totally.

Since all this information has to be determined on the basis of data coming from the waste management companies only the questionnaires sent to these companies are rather complex. In order to reduce the burden for companies a number of questionnaires have been developed for specific types of installations. A sorting facility gets another questionnaire than e.g. a composting facility or a landfill. Each questionnaire contains specific questions and also providing specific guidance for the companies that have to fill the forms.

For the pilot study the most interesting feature in the German system of waste statistics is the collection of information about imported waste.

The information about the imported waste has the following characteristics:

[8] Commission Decision 94/3/EC.

- the type of waste imported
- the amount of waste imported
- the type of treatment facility importing the waste

Apart from the facilities with a waste management licence, also certain industries that use recyclable materials in their production process receive a specific questionnaire on the use of recyclables in their production process. For plastic, waste paper and cardboard and glass also the import of waste is reported separately.

Exclusions and thresholds

The law on environmental statistics does not contain any specific exclusions or thresholds. Companies can have their data suppressed if the published figures would enable them to be identified. There are no specific assessments of impact of data that are covered by confidentiality on the total coverage of the data included in the statistics.

Nomenclature

As already mentioned above, the nomenclature used in the German waste statistics is the European Waste Catalogue and in the future the List of Waste, which amended and replaced the European Waste Catalogue and should be implemented in the Member States from 2002 onwards.

Frequency and timeliness

The data collection takes place on a yearly basis for the data concerning type of waste, its origin and treatment. Other information is collected on a two yearly bases (including the information about recycling facilities). Some information, in particular information about waste collection, is currently only collected on a four yearly basis.

The data for 2001 were officially published in December 2003, which is later than required under the waste statistics Regulation.

Summary

The following table summarises the characteristics of the German system of waste management statistics as described above.

§ of Environ-mental Statistics Act	Type of waste	Waste streams import and export specified	Waste streams import and export not specified	Data source	Perio-dicity [Years]	Country information
§ 3(1)	Non-hazardous waste	Import to public waste treatment facilities	Total export	Questionnaire	1	EU/non-EU
§ 3(1)	Non-hazardous waste	Import to industrial waste treatment facilities (effective 2004)	Total export; Import for direct reuse as raw material	Questionnaire	1	EU/non-EU effective from 2004
§ 4(2)	Wastes subject to notification	All	Illegal shipments	Notification form	1	Yes
§ 5(1)	Construction and demolition waste	None	Export and import	Questionnaire	2	No

§ of Environ-mental Statistics Act	Type of waste	Waste streams import and export specified	Waste streams import and export not specified	Data source	Perio-dicity [Years]	Country information
§ 5(2)	Used oil	Waste treated in recycling facilities	Total export; Import by traders	Questionnaire	2	EU/non-EU
§ 5(3)	Plastics waste	Import by recycling and reuse facilities	Total export, Import by traders	Questionnaire	2	EU/non-EU
§ 5(4)1.	Glass waste	Import by glass industry	Total export; Import by traders	Questionnaire	2	EU/non-EU
§ 5(4)2.	Paper waste	Import by paper mills	Total export; Import by traders	Questionnaire	2	EU/non-EU
§ 5(5)	Packaging	Export by collecting enterprises	Total import; Export by traders and sorting facilities	Questionnaire	1	EU/non-EU

Table 8. Overview of German system of waste management statistics

3.2.2 Some examples of data

Based upon the compiled data provided by the statistical offices of the Länder, the federal statistical office produces a number of statistics for Germany as a whole. A summary of the results of the calculation of waste generated in Germany is given in table 9

It should be noted that in these calculations the amount of waste imported by the waste companies is not included. However, there is no information on waste, generated in Germany, that is subsequently exported, insofar this export is not covered by the notifications under the waste shipment Regulation.

Type of waste	Amount (1 000 tons)		
	1999 [9]	2000 [10]	2001
Total	405 062	406 663	395 222
Of which			
Municipal wastes	49 653	50 085	49 371
Of which			
Domestic waste, total	36 198	37 620	36 259
Household waste, industrial waste similar to household waste, collected by public collection of waste	17 173	18 030	16 466
Bulk wastes	3 021	2 568	2 676
Compostable waste from the bio-bin	3 189	3 531	3 753

[9] As the European Waste Catalogue (EWC) has become the basis of the activities from reference year 1999, more waste codes have become possible also in the area of municipal waste. Therefore, the quantities within the items shown have shifted and other items not explicitly mentioned have been created. These items have been included for instance under "other domestic waste".
[10] Data for Hamburg partly from 1999.

Type of waste	Amount (1 000 tons)		
	1999 [9]	2000 [10]	2001
Separate collection (glass, paper, plastics, electronic parts)	12 815	13 491	13 364
Total of other municipal wastes	13 455	12 465	13 112
Industrial waste similar to household waste, not collected by public collection of waste (excl. household waste and bulk waste)	8 337	7 335	8 109
Garden and park waste	4 223	4 380	4 239
Street sweepings	839	680	694
Market waste	56	71	71
Slag from mining	52 251	48 187	49 187
Waste from production industries	37 274	39 754	37 173
Building demolition waste, excavated earth, road demolition waste, waste of construction sites	252 377	253 700	243 660
Hazardous waste	13 507	14 937	15 830

Table 9. Summary of the data on generation of waste in Germany. Source: Federal Statistical Office, Wiesbaden (2004).

Table 10 provides some information about imported wastes in 2000.

Waste imported by	Type of waste	Amount (1 000 tons)
Public waste management companies	Total non hazardous waste	1 061
Plastic industry	Plastic waste	81
Paper industry	Paper and cardboard waste	777
Glass industry	Glass waste	65

Table 10. Summary data on import of waste by waste management companies and selected recycling industries in 2000. Source: Federal Statistical Office (2003) Waste statistics.

The report also contains information about import of waste oil. Since these are covered by the waste shipment Regulation these are not presented in table 9. The reported amounts are in the same order of magnitude as the data from the report under the waste shipment Regulation.

In the next paragraph the suitability of the data to fulfil the data needs for import and export of waste in the context of the waste statistics Regulation are assessed using the criteria mentioned in the beginning of this chapter

3.2.3 Assessment of the suitability of the data for the compilation of statistics on import and export of waste

All wastes are covered in the statistics but there is some overlap with the waste shipment Regulation

The statistics cover all wastes. The data on import mainly focus on non-hazardous waste. Therefore there is no overlap with the data from the waste shipment Regulation on hazardous waste. However

there is some overlap with the non-hazardous waste for which the waste shipment Regulation requires a notification (e.g. municipal waste).

The data do not cover all trade

The German waste statistics do not contain information about export of waste but only address imports.

The data collection on imports from waste management companies limits itself to companies that are required to have a waste management licence. A number of activities are not included e.g. some activities of traders in recyclables. If a trader has no installation or storage activities, but limits its activity to serve as intermediary between the waste generator and a treatment facility, this activity does not require a waste licence and therefore is not included in the survey. This is particularly relevant for import and export of waste, because waste traders are particularly active in the international trade. If waste is imported into Germany by a trader and via this German trader the waste is delivered at a waste management facility or at the recycling industry, the waste is likely to be considered as 'German' waste and not as imported waste. The data on imported waste in the German waste statistics are therefore considered to be an under estimation of the real trade. When the data on import of certain waste types in the waste statistics are compared with the data reported in the statistics for foreign trade this assumption is supported. The amounts reported in the foreign trade statistics are much higher than those reported in the waste statistics (see table 11).

Waste type	Amount in German waste statistics (1 000 tons)	Amount in foreign trade statistics (1 000 tons)
Glass waste	65	144
Paper waste	777	1 161
Plastics waste	81	80

Table 11. Comparison of the reported imports for selected waste streams from the statistics on foreign trade and the German waste statistics. Data refer to 2000. Source: Destatis (2003), further processed by UBA.

A more extensive comparison of import data from the German waste statistics with data from both the foreign trade statistics and the data from the waste shipment Regulation is given in Annex 7.

Information about type of waste, amounts, generating sector and type of treatment is available

For the imported wastes these are the core elements of the data collection. Moreover, there is also in most cases an indication about the economic sector that has generated the waste, because the code of the European Waste Catalogue provides for an indication on this aspect.

Information about the origin, limited to the distinction intra-EU and extra-EU is available

The questionnaires do not require the companies to specify the country of origin for the waste that is imported. Only a distinction between intra-EU and extra-EU trade is requested.

The attribution of codes in the European Waste Catalogue to categories in EWCSTAT is possible

A revised Annex III of the waste statistics Regulation provides for a correspondence table between the List of Waste and the categories in EWCSTAT. Conversion of data from the German waste statistics to EWCSTAT is therefore easy.

Frequency and timeliness of the German waste statistics are not yet fully in line with the requirements of the EU Regulation

The frequency of data collection of the German waste statistics is such that it would fulfil the requirements of the EU directive. Some of the data are only requested once every 4 years, but these are not essential for the requirements in the Regulation. The publication of the national data for 2001 were too late to fulfil the requirement of the EU Regulation but this is not a major obstacle because it should be possible to improve the timeliness in the future.

Additional costs for the production of statistics on import and export of waste are considerable if better coverage of the trade is required

The data on import are already an integral part of the data collection and producing statistics on import based upon the current data collection does not involve any additional costs. If also information from waste traders and on exports were to be included in the statistics this would involve a considerable increase of the number of questionnaires to be sent out and therefore involve considerable extra cost.

The system of data collection on waste in Germany is basically a national system that can only be used by Member States that also focus their surveys on waste management companies only.

The system as used in Germany only works for the German system of data collection and in Member States that have organised the data collection in a similar way. Member States that use surveys of the industry for the data collection on waste generation do not encounter the same problems as Germany and therefore do not have the same need for data on import and export. These Member States will typically not include questions on import and export in their survey of the waste generating industries.

3.3 Other administrative sources in Germany

The German waste legislation provides for a system of licenses and elaboration of waste management plans. The licenses include data recording obligation for the purpose of enforcement. The waste management plans take into account the amounts of waste generated and provide for a planning for the required treatment capacity. These administrative sources therefore could in theory be a source of information for data on import and export of waste. Therefore a limited investigation into the suitability of these data in the context of the pilot study was done.

This investigation revealed that for several reasons these sources are not suitable as a basis for the compilation of regular statistics.

- The legislative and executive responsibilities in relation to waste management in Germany are distributed over 4 administrative layers (federal, regional, sub-regional and local), and the requirements regarding data registration on import and export of waste (if any) are not coordinated or harmonised.
- If data on import or export of waste are included in the registers according to the waste licence, these are not registered in a harmonised format and no requirements are included to transmit these data to a central registration. These data are only available at the facility, which makes the data collection burdensome and the results will not be comparable for Germany as a whole.
- If data on import and export are included in waste management plans these are incomplete and not harmonised (only targeted to the specific needs in the specific plan) and only updated when the plan is updated.

The conclusion therefore is that in Germany these administrative sources do not provide for a basis to collect regular statistics on import and export of waste.

3.4 Other sources of information

The waste legislation contains a number of provisions that apply to all types of wastes. These provisions are included in the Kreislauf und Abfallwirschaftsgesetz and in the regulations implementing the waste shipment Regulation and the waste statistics Regulation. The information on import and export of waste that could be obtained from the data based upon the requirements included in these Regulations do not provide a full picture of the total import and export streams. For some of the waste streams that are not covered by these sources, the statistics on foreign trade provide for additional information. As indicated in paragraph 3.1.3 a number of these waste streams are also not covered by the statistics on foreign trade.

For a number of these 'missing' waste streams specific waste legislation was developed including the following EU directives[11]:

- Packaging and packaging waste
- Animal by-products
- End of life vehicles
- Waste electrical and electronic equipment

Germany has also implemented some national legislation on specific waste streams. A good example of this national legislation is the Ordinance on wood waste, but since this Ordinance does not contain specific requirements for data collection it was not further analysed.

In the following paragraphs the potential to obtain additional information on import and export of these waste streams is explored. In the context of the pilot study this exploration could not be exhaustive and the main objective is to identify if the current status of implementation in Germany regarding these waste streams allows for the immediate use of data on import and export.

3.4.1 Packaging waste

Packaging waste is not a priority waste stream in the context of the waste Statistics Regulation at this moment. For three reasons this report nevertheless provides details on the system of data collection for packaging. Firstly because the data could contain information about waste streams that cannot be covered by other sources. Secondly because packaging could become a priority after the completion of the pilot studies on packaging and packaging waste. Thirdly because the terms of reference of the pilot studies produced by the Commission specified that the relevant aspects of import and export of packaging waste were included in the pilot studies on import and export of waste.

In 1994 the EU directive 94/62/EC on packaging and packaging waste was adopted. Article 12 of this Directive requires that Member States set up a database on packaging and packaging waste on a harmonised basis in order to enable Member States and the Commission to monitor the implementation of the objectives set out in the Directive. In 1997 Commission Decision 97/138/EC established a harmonised format for transmission of data by Member States to the Commission.

The format specifies that Member States must report on the amounts of packaging waste that are exported and imported for recovery. The data for the year 2001 as reported by Germany are given in

[11] This overview is not exhaustive. Directives that only cover hazardous wastes such as the directives on PCBs, waste oils and hazardous batteries are not included because these are covered by the data collection under the waste shipment regulation and therefore not relevant for this pilot study.

table 12. They come from a study by the Gesellschaft für Verpackungsmarktforschung for the Ministry of the Environment. The data on mixed packaging come form the report from UBA to the Basel Secretariat.

List of Waste code	Description	Export (1 000 tons)	Import (1 000 tons)
150101	Paper and cardboard packaging	1 923	415
150102	Plastic packaging	47	0
150103	Metallic packaging	21	Not available
150104	Wooden packaging	230	Not available
150105	Composite packaging	0	Included in main material
150106	Mixed packaging	12	287
150107	Glass packaging	311	126
150109	Textile packaging	Not available	Not available
1501	Total	2 544	> 828

Table 12. Import and export of packaging waste. Data for Germany for 2001 in tons.
Source. Gesellschaft für Verpackungsmarktforschung, 2003.

The data in this survey are compiled from several sources. These are shortly described per material.

Paper and cardboard packaging

The basis for the data on paper and cardboard packaging are the statistics for foreign trade. A number of codes in the Combined Nomenclature are dedicated to paper and cardboard. On the basis of a survey by the paper industry for each of these codes in the Combined Nomenclature the share of packaging material was established. An overview of the percentages used to estimate the import and export of packaging waste is given in table 13.

CN code	Description	% packaging
47071000	Unbleached kraft paper or paperboard or corrugated paper or paperboard	100%
47072000	Other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass	0%
47073010	Old and unsold newspapers and magazines, telephone directories, brochures and printed advertising material	0%
47073090	Other paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)	0%
47079010	Other, including unsorted waste and scrap of paper	25%
47079090	Other, including sorted waste and scrap of paper	60%

Table 13. Share of packaging in selected CN codes in the statistics for foreign trade.
Source: GVM (2003) VDP

Plastic packaging

Assessment of the data included in the foreign trade statistics revealed that the main part of the plastic wastes that are imported and exported consist of production residues. Only a small consist of used packaging. It was therefore decided that an estimation of the packaging share in the trade statistics data was not the best approach to provide information on import and export of plastic packaging waste. As alternative source the export data provided by DSD were used. These data were completed with an estimation on the amount of export of plastic waste from non-household sources.

A survey with the plastic recycling industry did not detect imports of plastic packaging waste. The fact that Germany has a very elaborated system of collection and sorting of plastic packaging probably contributes to this lack of import. The companies that recycle plastic packaging can find their input in Germany and don't have to import waste.

Metallic packaging

Metallic packaging consists of two main materials: tinplate and aluminium. The data in the statistics on foreign trade include metallic packaging. The percentage of metallic packaging is very low and for that reason is was considered that other sources of data were needed. The current data for export are reported by DSD. For imports no reliable sources were found. It was estimated that the import of metallic packaging is not a significant amount.

Wooden packaging

Also for wooden packaging only export data are available. The data are coming from a survey with waste management companies and are provided by BDE. The flows for wooden packaging are considered to be complex. In particular for the import no reliable sources were identified. Most of the wooden packaging consists of pallets. These are for a large percentage used in pallet pools and used several times before they become waste. Some of the pallets are repaired if this allows for continued use, which make it difficult to monitor this waste flow.

Composite packaging

For the export of composite packaging DSD was used as a source. The reported amount was 0. For imports only the statistics for foreign trade include this material, but not as a separate category.

Glass packaging

For import of glass packaging the data from the statistics of foreign trade are used. Based on a rather old study a percentage of 5% of the import is considered to be non packaging glass. For the export the data from the glass recycling company of DSD are used. These were considered more reliable than the export data in the statistics on foreign trade. In particular for glass, which has a high weight and relatively low monetary value it was considered that the reporting threshold in the trade statistics would provide for an important underestimation of the export. However, the experience of the recent years shows that the reported amounts in the trade statistics are coming quite close to those reported by DSD.

Textile packaging

The use of textile packaging is very limited and therefore the total amounts of textile packaging are limited. Import and export of this packaging material could not be detected.

Review of the decision on formats for data transmission

The packaging directive has been revised recently. The new directive (2004/12/EC) provides for a new calculation method for the recycling and recovery rates. Recovery outside the Member State may be counted for the achievement of the recovery targets. For recovery that takes place outside the EU sound evidence has to be provided that the recovery takes place under conditions that are broadly equivalent to those prescribed by Community legislation on the matter. Imported packaging waste may not be counted to achieve the targets.

This implies that the Decision on the formats for data transmission will be modified soon. It is likely that this modification will be finalised during the year 2004. The obligation to provide for data on

import of packaging waste is likely to disappear, since there is no longer any link to achieving the targets. It seems that information on export will remain obligatory, but rough estimations will be allowed if the methods for estimation are explained.

3.4.2 Animal by-products

EU Regulation (EC) N° 1774/2002 on animal by-products regulates the collection, storage, handling, processing, use and disposal of animal by-products unfit for human consumption. The main aim of the Regulation is the protection of human and animal health and the protection against diseases (e.g. BSE).

Some of the applications of the by-products (e.g. use as animal feeding) are allowed for certain types of by-products. In these cases the by-products are not regarded as waste. Other types of by-products may not be used as animal feeding and need to be managed in a strict controlled way. In these cases the by-products are wastes.

The Regulation contains provisions for the notification of transfrontier shipment of these by-products. The Competent Authorities for receiving these notifications and for giving permission for transfrontier shipment in Germany is the ministry for agriculture. The data regarding shipments are communicated in a central electronic database called ANIMO. The type of information included in the database includes:

- Date of shipment
- Country of origin
- Destination (including the unit code of the installation receiving the by-products)
- Type of material
- Quantities.

Since the installation to which the by-products are shipped and since these units require registration at the Competent Authority to receive the material this identification provides for the possibility to identify the type of treatment and potentially to distinguish waste treatment facilities from production facilities. Also the type of material can be an indication that the shipment concerns waste. In particular the so-called 'risk materials' in the Regulation can only be shipped for disposal.

The system therefore has the potential of providing data on import and export of animal waste (category 9.11 of EWCSTAT). However, during the pilot study no confirmation could be obtained from the Competent Authority responsible for the ANIMO database, that these data are suitable and available for this purpose and this needs to be investigated further.

3.4.3 End of life vehicles

EU Directive 2000/53/EC on end-of-life vehicles sets up the framework for the collection, dismantling and recycling of end-of-life vehicles. This law is implemented in Germany via the End-of-Life Vehicle Ordinance of 2002[12]. Both the EU Directive and the German Directive introduce a system of producer responsibility. Specific targets for dismantling and recycling are included.

Regarding data on import and export, a specific reference is made in Article 7.2 where the requirements for monitoring the compliance with the recycling targets are indicated. It is specified that the Commission shall establish detailed rules for this and take into account the issue of exports and imports of end-of-life vehicles while doing so. However, the questionnaire that was drawn up including the reporting requirements (Commission Decision 2001/753 of 17 October 2001) does not refer to the issue of imports and exports, neither does the German Ordinance.

[12] Altfahrzeug Verordnung. BGB I 2002, No 41 of 28 June 2002, 2214.

This implies that, although the EU Directive has identified the issue of imports and exports as an important element to monitor the implementation of the Directive, it does not specify that such data should be collected by Member States.

If Germany would need such data for the monitoring of compliance with the recycling targets, it would have to collect such data itself. In principle the system of responsibilities of producers and the requirements for networks of collection facilities, treatment or dismantling facilities and shredder facilities would allow to request such information from these facilities, in order for them to demonstrate they fulfilled the requirements of the German Ordinance. All German end-of-life vehicles have to enter this system, because this is the only way to get a certificate of destruction. However, installing such a system of data collection including data on the import and export is not yet operational. It is likely that such information on exports would be easier to obtain than information on imports. The information on export is required for demonstrating compliance with the targets whereas import data are not needed for that purpose.

3.4.4 Waste electrical and electronic equipment

The requirements for the management of waste electrical and electronic equipment are included in EU Directive 2002/96/EC. This Directive should be implemented in the Member States before 13 August 2004. Germany has not yet finalised its implementing legislation.

Article 12.1 of the EU Directive specifies that information about exported waste is to be provided, either by weight or if that is not possible by number. This is required to demonstrate compliance with the requirements for recovery included in the directive. The first year of data collection is 2005 and a data format for reporting is still to be developed. This Directive does not foresee data on imports. They are not required for demonstrating compliance with the recovery requirements. If a system for data collection and reporting is set up for the implementation of the EU Directive in Germany it will not be finalised in time to be able to deliver data for the year 2004.

3.5 Summary of the assessments

The results of the assessment of the suitability of the different sources of data are summarised in table 14.

Requirement	Source of data			
	Waste Shipment Regulation	**Foreign Trade Statistics**	**German Waste Statistics**	**Other Sources**
Trade covered	Waste subject to notification	Waste entries identified in the CN Trade over the threshold for total trade per company of € 200,000	Import of waste by public waste management facilities; industrial waste facilities to be included from 2004 onwards; Export of packaging waste from collecting enterprises, Import of glass, plastics and paper waste by producers of glass, plastics and paper; Import of used oil by recycling companies	Packaging waste

Requirement	Source of data			
	Waste Shipment Regulation	**Foreign Trade Statistics**	**German Waste Statistics**	**Other Sources**
Countries of origin and destination	Yes	Yes	Only distinction intra and extra EU trade	No
Conversion to LoW/EWCSTAT	Yes	In most cases possible	Yes	Yes
NACE breakdown	In most cases	In most cases not	In most cases	No
Treatment specified	Yes (but includes pre-treatment)	Total recovery but no distinction between incineration and recycling of combustible waste	Yes	Yes (recycling only)
Periodicity sufficient	Yes	Yes	Mostly	Yes
Timely	Yes	Yes	Nearly, acceleration possible	Yes
Comparable information available in other EU member States	Yes	Yes	In some MS	Should be (although not all MS report)

Table 14. Summary of the assessment of the suitability of identified potential data sources.

4 Conclusions and recommendations for a methodology

The description and assessment of the different potential sources of data on import and export of waste has addressed a number of potential data sources that could be used for the production of statistics. In This chapter contains the conclusions and recommendations based upon his work. The chapter contains the following information.

- Conclusions for each of the potential sources of information separately , based upon the assessment in chapter 3.
- Conclusions based upon the comparison of the different sources to detect the strengths and weaknesses of the potential of these sources compared to each other.
- Recommendations for data that could be used immediately for the compilation of statistics on imports and exports.
- Recommendations for further development in cases where data are not immediately available.
- Recommendations for the use of import and export data for the calculation of the total generation of waste according to Annex I of the waste statistics Regulation.

4.1 Conclusions

Conclusions regarding the suitability of foreign trade statistics

1. For a number of important waste streams, including metal scrap, paper and cardboard, glass and plastic waste, statistics of foreign trade provide for relevant data on import and export of waste that can be used as a complement to the data based upon the Waste shipment Regulation.
2. These data should be regarded as an estimation of the minimal amount of trade, due to in particular the reporting thresholds applied in Intrastat. Moreover, due to the differences in thresholds applied by Member States, data may not be fully comparable throughout the EU.
3. For a number of other waste streams, such as tyres, end-of-life vehicles, electrical and electronic equipment and waste from the agro-food industry foreign trade statistics do not provide a good basis to complement data on import and export of waste, since data on waste and on products are typically combined in the same code of the Combined Nomenclature.
4. It is possible to get indication on the process that is generating the waste and on the type of treatment that the waste will undergo, but not directly from the data in the statistics.
5. Data on foreign trade are produced more frequent than required for the Regulation on waste statistics and are available in time to respect the deadlines.
6. The necessary data can easily be extracted from the existing database and therefore using these data for the purpose of the Regulation of waste statistics would involve little or no extra costs.
7. A methodology that applies to Germany could in principle be used by all Member States.

Conclusions regarding the suitability of the German waste statistics

1. The current system of data collection on waste in Germany only provides for limited information on import of waste and no information on export of waste and therefore does not provide for a good basis to provide data in addition to those already collected under the waste shipment Regulation
2. The current system requires additional information on export of waste generated in Germany to be able to calculate the amount of waste generated in Germany.
3. The current system of recording imports only provides for a partial coverage of the total imported amounts and a calculation of the total generation based upon these figures therefore

overestimates the generation of waste in Germany. For wastes where other and more complete data are available the use of these sources could be considered.

Conclusions regarding other administrative sources of data in Germany

1. The administrative sources such as data in waste management licences and waste management plans in Germany are dispersed, incomparable and not regularly updated and therefore do not provide for a basis to compile statistics in import and export of waste.

Conclusions regarding other sources

Packaging data

1. For a number of packaging waste streams the statistics on foreign trade form the basis of the data collection, in particular for paper and cardboard and for glass.
2. For other materials the trade statistics are not used, because the share of packaging in the trade data is too small to allow for an accurate estimate. The total stream of the trade in the trade statistics however includes packaging. This applies for plastic and metallic packaging.
3. The amount of exported and imported composite packaging and textile packaging is negligible.
4. The obligation to provide information on imports is likely to be repealed. Such information may still be provided on a voluntary basis, if Member States see the use of such data.
5. Only for export of wooden packaging the survey provides for additional data that cannot be obtained from other sources already assessed in the pilot project.
6. Packaging waste is not a priority waste stream in the context of the waste Statistics Regulation at this moment. It could become a priority after the completion of the pilot study on packaging. The relevant aspects of import and export of packaging waste are included in this report. The system currently applied in Germany is suitable to implement this data requirement now and in the future.

Animal by-products

1. The data included in the ANIMO database might constitute a basis for the production of statistics on import and export of animal waste and this potential should be studied in more detail.

End of life vehicles

1. The EU Directive identifies the need for data on import and export of end-of-life vehicles but the Commission Decisions that should determine the format for data reporting does not include any details on the issue. The German Ordinance that implements the Directive does not provide for detailed requirements on this issue either. However, the requirements put on manufactures and the system put in place for collection, treatment and recycling of end-of-life vehicles does provide for a framework that could be used to collect such data.

Electric and electronic equipment

1. The EU Directive identifies the need for data on export of waste electric and electronic equipment but the Commission Decisions that should determine the format for data reporting is not yet in place. The German legislation implementing the Directive is still unde development.

Summary conclusions

The statistics on foreign trade provide for a solid basis to produce statistics on import and export of the following waste types:

- Metallic waste
- Plastic waste
- Paper and cardboard waste
- Glass waste
- Textile waste
- Combustion wastes (ashes and slags)

Compared with the other sources, the trade statistics provide for the most complete dataset for these waste streams. These statistics could be used immediately. The results would be highly comparable with results from other Member States and the compilation of such statistics would not involve considerable costs or efforts. The selection of codes in the Combined Nomenclature that are recommended to provide the basis of these statistics will be given in the next paragraph.

At the moment no other sources of information are available that could complement the data collected under the waste shipment Regulation of waste streams other than those mentioned above. Further completion of data with information on other waste streams would require amendments to current legal instruments or additional studies to develop factors or estimates.

4.2 Recommendations

4.2.1 Recommendations for the use of trade statistics

In this paragraph the suitable codes in the Combined Nomenclature are identified that could be the basis for the compilation of statistics on import and export of waste for the different materials. For each of the waste streams the codes on 8 digit level are identified. This provides for the most detailed break down. In practise it will be possible to select the data on 6 digit level for certain wastes, because all the entries on 8 digit level are included.

Proposal for CN codes to be used for the compilation of statistics on metallic waste

For the statistics on import and export of metallic wastes the following codes from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 6 non-hazardous metallic waste.

CN code	Description
71121000	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals
71122000	Waste and scrap of platinum, including metal clad with platinum but excluding sweepings containing other precious metals
71123000	Ash containing precious metal or precious-metal compounds
71129000	Other waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal or precious-metal compounds, of a kind used principally for the recovery of precious metal
71129100	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals

CN code	Description
71129200	Waste and scrap of platinum, including metal clad with platinum but excluding sweepings containing other precious metals
71129900	Waste and scrap of other precious metal
72041000	Waste and scrap of cast iron (ECSC)
72042110	Waste and scrap of stainless steel containing by weight 8 % or more of nickel (ECSC)
72042190	Other waste and scrap of stainless steel (ECSC)
72042900	Other waste and scrap (ECSC)
72043000	Waste and scrap of tinned iron or steel (ECSC)
72044110	Turnings, shavings, chips, milling waste, sawdust and filings (ECSC)
72044191	Trimmings and stampings in bundles (ECSC)
72044199	Other trimmings and stampings (ECSC)
72044910	Other waste and scrap fragmentized (shredded) (ECSC)
72044930	Other waste and scrap in bundles (ECSC)
72044991	Other waste and scrap neither sorted nor graded (ECSC)
72044999	Other waste and scrap (ECSC)
72045010	Waste and scrap (blocks) of alloy steel (ECSC)
72045090	Other (ECSC)
74040010	Waste and scrap of refined copper
74040091	Waste and scrap of copper-zinc base alloys (brass)
74040099	Waste and scrap of other copper
75030010	Waste and scrap of nickel, not alloyed
75030090	Waste and scrap of nickel alloys
76020011	Waste of aluminium, turnings, shavings, chips, milling waste, sawdust and filings; waste of coloured, coated or bonded sheets and foil, of a thickness (excluding any backing) not exceeding 0,2 mm
76020019	Ohter aluminium waste (including factory rejects)
76020090	Aluminium scrap
78020000	Lead waste and scrap
79020000	Zinc waste and scrap
80020000	Tin waste and scrap
81019700	Tungsten waste and scrap
81029700	Molybdenum waste and scrap
81033000	Tantalum waste and scrap
81042000	Magnesium waste and scrap
81053000	Cobalt waste and scrap
81060010	Unwrought bismuth, waste and scrap, powders
81073000	Cadmium waste and scrap
81083000	Titanium waste and scrap
81093000	Zirconium waste and scrap
81102000	Antimony waste and scrap
81110019	Manganese waste and scrap
81122200	Chromium waste and scrap

CN code	Description
81123010	Unwrought germanium, powders, waste and scrap
81123040	Germanium waste and scrap
81124019	Vanadium waste and scrap
81129239	Niobium (columbium) and Rhenium waste and scrap
81129250	Gallium and Indium waste and scrap
81130040	Cermets waste and scrap

The codes 79031000 (Zinc dust), 79039000 (Zinc powders and flakes (excl. grains of zinc, and spangles of heading 8308, and zinc dust) and 81121300 (Beryllium waste and scrap) have not been included because these may be partly covered by the data under the waste shipment Regulation. This potential overlap needs first to be assessed before a decision to include these codes into the abovementioned table can be decided.

Proposal for CN codes to be used for the compilation of statistics on glass waste

For the statistics on import and export of glass waste the following code from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 7.1 non-hazardous glass waste.

CN code	Description
70010010	Glass wastes

Proposal for CN codes to be used for the compilation of statistics on paper and cardboard waste

For the statistics on import and export of paper and cardboard waste the following code from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 7.2 paper and cardboard waste.

CN code	Description
47071000	Unbleached kraft paper or paperboard or corrugated paper or paperboard
47072000	Other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass
47073010	Old and unsold newspapers and magazines, telephone directories, brochures and printed advertising material
47073090	Other paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
47079010	Other, including unsorted waste and scrap of paper
47079090	Other, including sorted waste and scrap of paper

Proposal for CN codes to be used for the compilation of statistics on plastic waste

For the statistics on import and export of plastic waste the following code from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 7.4 plastic waste.

CN code	Description
39151000	Waste, parings and scrap of polymers of ethylene
39152000	Waste, parings and scrap of polymers of styrene
39153000	Waste, parings and scrap of polymers of vinyl chloride
39159011	Waste, parings and scrap of polymers of propylene
39159013	Waste, parings and scrap of acrylic polymers
39159019	Waste of addition polymerisation products
39159091	Waste, parings and scrap of epoxide resins
39159093	Waste, parings and scrap of cellulose and its chemical derivatives
39159099	Waste, parings and scrap of other plastics

Proposal for CN codes to be used for the compilation of statistics on textile waste

For the statistics on import and export of textile waste the following code from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 7.6 textile waste.

CN code	Description
41100000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour
41152000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour
50031000	Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) not carded or combed
50039000	Other silk waste
51032010	Yarn waste of wool or of fine animal hair
51032091	Waste of wool or fine animal hair not carbonised
51032099	Waste of wool or fine animal hair carbonised
51033000	Waste of coarse animal hair
52021000	Cotton waste (yarn waste)
52029100	Cotton waste (garnetted stock)
52029900	Other cotton waste
53013090	Flax waste, incl. yarn waste and garnetted stock
55051010	Waste (including noils, yarn waste and garnetted stock) of man-made fibres of nylon or other polyamides
55051030	Waste of polyesters
55051050	Waste of acrylic or modacrylic
55051070	Waste of polypropylene
55051090	Waste of other synthetic fibres
55052000	Waste off artificial fibres
63090000	Worn clothing and other worn articles
63101010	Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of wool or fine or coarse animal hair, sorted
63101030	Rags of flax or cotton, sorted
63101090	Rags of other textile materials, sorted
63109000	Rags, unsorted

Proposal for CN codes to be used for the compilation of statistics on combustion wastes

For the statistics on import and export of combustion waste the following code from the Combined Nomenclature are suggested as a basis for the calculation. The total amount on these codes represents the best estimation of the amount for EWCSTAT aggregation 12.42 of non-hazardous slags and ashes from thermal processes.

CN code	description
26180000	Granulated slag (slag sand) from the manufacture of iron or steel
26190091	Waste suitable for the recovery of iron or manganese
26190093	Slag from the manufacture of iron or steel suitable for the extraction of titanium oxide
26190095	Waste suitable for the extraction of vanadium
26190099	Other slag and waste from the manufacture of iron or steel
26201100	Hard zinc spelter
26209920	Ashes and residues containing mainly niobium and tantalum
26209930	Ashes and residues containing mainly tungsten
26209950	Ashes and slag containing mainly molybdenum
26209960	Ashes and slag containing mainly titanium
26219000	Other ashes and slag

For the following ashes and residues the potential overlap with the data from the (revised) waste shipment Regulation has to be assessed in more detail before a decision on inclusion for the production of statistics on import and export can be taken.

CN code	Description	Code OECD
26201900	Ash and residues containing mainly zinc (excl. hard zinc spelter)	GB 020 AA 020
26203000	Ash and residues containing mainly copper	AA 040
26204000	Ash and residues containing mainly aluminium	AA 050
26209910	Ash and residues containing mainly nickel	AA 070
26209940	Ash and residues containing mainly tin	
26209970	Ash and residues containing mainly cobalt	AA 070
26209980	Ash and residues containing mainly zirconium	AA 070
26209990	Ash and residues containing metals or metal compounds (excl. those from the manufacture of iron or steel and those containing primarily zinc, lead, copper, aluminium, nickel, niobium, tantalum, tungsten, tin, molybdenum, titanium, cobalt or zirconium, those containing arsenic, mercury, thallium or their mixtures of a kind used for the extraction of arsenic or those metals or for the manufacture of their chemical compounds and those containing antimony, beryllium, cadmium, chromium or their mixtures)	AA 070

It may be necessary to complement the data on slags and ashes form thermal processes with certain entries on residues of flue gas cleaning. This aspect could not yet be fully assessed.

4.2.2 Recommendations for further developments

A number of issues could not be fully addressed during the pilot study. These include certain detailed methodological issues regarding the use of the statistics on foreign trade as proposed in the previous paragraph.

1. The trade statistics do not provide a full complementary set of data that can be used to complete the data already covered by the waste shipment Regulation. For a number of categories of waste in EWCSTAT there are currently no suggestions for a concrete solution. For these categories additional work may be needed. This additional work could be done by Germany in a next stage of the development of a methodology but also some of these aspects might be suitable for study in some of the other pilot studies done by other Member States.

   The following aspects of the proposed use of the foreign trade statistics might need further development.

- The impact of the reporting threshold on the reported amounts of imported and exported waste is not fully clarified. It is clear that due to this threshold the trade statistics do not provide for data on the total trade. In particular for wastes with a low value and for which important volumes of trade are expected this underestimation may be significant. Further investigation are needed to provide for a better understanding for which waste streams this is a serious problem and to provide for indications on the order of magnitude of the underestimation. Some indication might be found in the data collected by the Statistical office of Sweden in their recent survey of the recycling industry. Finland suggested to assess the impact on the data provided in Extrastat when the much higher thresholds of the intra EU trade would be applied to this dataset. It could also be envisaged to contact a number of trade experts in the industry to investigate this aspects further.
- For a the waste streams that are well covered by the trade statistics and for which a proposed list of codes in the Combined Nomenclature was proposed in paragraph 4.2.1 it is not yet fully clear to what extend this list should complemented by a number of other codes. Examples of such codes were identified in the paragraph and these should be studied further.
- The basis of the proposal in paragraph 4.2.1 was a list of all CN codes that consist of or contain waste. This list is included in Annex 4. If other Member States identify codes that are not included in this Annex these could be suggested for completion. Also the correspondence tables between the CN codes and the different waste classifications might need further refining.

2. For a number of wastes there are currently no concrete proposals for a recommended methodology and these might need further study. The EWCSTAT entries that are currently not covered are indicated in the next table and some suggestions for a way forward are included.

EWCSTAT Code	Description	
7.3	Rubber wastes	Estimation of the share of waste tyres in the statistics of foreign trade
7.5	Wood waste	WSR data on treated wood, complemented with data on wooden packaging. Estimation of untreated wood (except packaging)
8.1	Discarded vehicles	Include requirements for data collection on import and export for compliance schemes under the EU elv directive
8.2	Electric and electronic equipment	Assess scope of CN entry 8548 9090. Include requirements for data collection on import and export for compliance schemes under the EU weee directive
8.3	Bulky household	Assess need for inclusion. import and export may be limited.

EWCSTAT Code	Description	
	equipment	
8.4	Discarded machines	Assess need for inclusion. Import and export of whole machines may be limited (mainly trade in metals from dismantling of machines)
9.11	Animal waste	Assess suitability of data in ANIMO database
9.12	Plant waste	Develop estimates based upon CN codes in Annex 4 that include both waste and products
9.2	Green waste	Specific survey of composting facilities
10.2	Mixed materials	Assess need for inclusion. import and export may be limited
10.3	Sorting residues	Assess need for inclusion. import and export may be included to a large extent in the material streams proposed in paragraph 4.2.1
11.3	Dredging spoil	Assess need for inclusion. import and export may be limited
11.4	Cesspit contents	Assess need for inclusion. import and export may be limited
12.1	Construction and demolition waste	Assess overlap with WSR data on mixed construction materials and assess the need for inclusion of data on the sorted mineral fraction
12.4	Combustion wastes	See paragraph 4.2.1
12.5	Various mineral wastes	Assess need for inclusion. import and export may be limited

3. It could also be envisaged to request the World Customs Organisation to specify some of the entries in the Combined nomenclature in such a way that the inclusion of both waste and products would be limited. This would require that the customs organisiation is willing to take such adjustments into consideration. The first contacts on this issue were not very promising. Moreover, it should be kept in mind that such changes would have to fit into the revision scheme of the Harmonised System and therefore require a large number of years before implementation.

4. After finalisation of the review of the waste shipment Regulation the possibility to introduce an obligation in Germany for the transmission of data on trade with waste that is not covered by the notification procedures could be assessed. The current Proposal give this option to Member States in its Article 19. This is only relevant if this provision is still included in the text that will be finally adopted. When implemented in German law this would provide for all the necessary data to fulfil the requirements of the waste statistics Regulation. The introduction of such a system might be rather controversial in Germany. In the form in which it is included in the Commission Proposal it would imply the introduction of an additional administrative burden for companies without a legal obligation in the EU Regulation. For the waste streams with the most important trade volumes, the statistics on foreign trade provide for a good basis to produce these statistics via an alternative method and without such additional adminstrative burden for companies. Even if the provision remains included in the final text of the Regulation it is therefore not certain that the introduction of such a system would be acceptable in Germany.

4.2.3 Recommendations for the calculation of total generation of waste in Germany

The current system of calculation of the total generation of waste is based upon a calculation including The total amount of waste treated by the German waste management companies, corrected for imported wastes and double counting of treatment by intermediary waste treatment operations.

Regarding the correction for imported waste the main shortcoming is that the statistics do not detect waste that is imported by companies that do not need a waste licence (e.g. traders). For the waste streams covered by the statistics on foreign trade and included in the recommended methodology in paragraph 4.2.1, the data in the trade statistics provide for a better estimate of the import than the data currently included in the German waste statistics. It could be envisaged to use these trade data instead of the currently included data. For the wastes for which the statistics on foreign trade do not provide an alternative, the current data in the German waste statistics would be the only source of information and it is recommended to continue the use of those data, at least for the time being.

The current system of calculation of the generation of waste does not take into account that waste generated in Germany could be exported without being processed by a German waste management facility. The export data in the statistics on foreign trade might provide an estimation of this export flow. However, these export data may contain wastes that are exported by waste management companies and the trade statistics do not contain direct references to the characteristics of the exporter. Before using the export data from these statistics as a complementary set of data on generation of waste the potential overlap with the data already collected from the waste management companies would need to be assessed further.

Annex 1: Sample of data submitted to the SBC

The tables presented in this Annex include a small selection of the data transmitted by Germany purposes. They are intended to give an impression of the variety of waste and the type of data elements included in the report.

The Annex contains two parts. Part 1 contains examples of the data on export by Germany and Part 2 on import data. The first part of the tables contains a summary of the total amounts imported and exported. Under these totals some examples are given of individual data lines from the report. These examples show how the information in the report is structured and also gives an impression about the types of waste covered. It should be noted that the report contains information on a certain non-hazardous wastes insofar these are subject to the notification procedure. In general non-hazardous wastes can be identified in the report by checking the column on the hazard characteristics. If the H code of this characteristic is not mentioned the waste is regarded to be a non-hazardous waste.

The tables contains the following references:

Category of waste.

The definitions of hazardous waste refer to the definitions of hazardous waste in the Basel Convention. Article 1(1)a contains the hazardous wastes that are defined on the basis or the annexes I and III of the Convention itself and Article 1(1)b refers to additional wastes considered hazardous under national law.

‘Other waste’ is waste included in Annex II of the Convention in includes household waste (Y46) and residues arising from the incineration of household wastes (Y47).

The Y-codes refer to the codes included in Annexes I and II of the Convention. The German report only contains a description of the waste if there is no corresponding Y code.

Annex VIII contains the list of wastes considered as hazardous waste (list A). These wastes are characterised with a code number starting with A. Germany also included codes from Annex IX (List B) where applicable.

Hazardous characteristics. These are the properties of the waste that may render a waste hazardous. The H codes refer to the codes in Annex III of the Basel Convention which are largely equivalent to the codes used in Annex III of the EU directive 91/689/EEC on hazardous waste.

The UN class (not used by Germany) refers to the classification in the UN regulations on transport of dangerous goods.

Amounts. All amounts are given in metric tonnes as specified by the Basel Convention. There is no difference between metric tonnes and tons as specified in the other parts of the report.

Country of transit and country of import or export (part 2). The codes for the countries are the two letter ISO codes.

Final disposal and recovery. These codes refer to the descriptions of disposal and recovery facilities in Annex IV of the Basel Convention. These codes and description are largely equivalent to the D and R codes in Annex II A and II B of EU directive 75/442/EEC on waste.

Examples of the data included in the report by the German authorities to the Secretariat of the Basel Convention

Part 1: Export of hazardous wastes and other wastes in 2001

Total amounts exported:

Total amount of hazardous wastes under Art. 1 (1)a (Annex I: Y1 - Y45) exported	210788	metric tonnes
Total amount of hazardous wastes under Art. 1 (1)b exported	59217	metric tonnes
Total amount of other wastes exported (Annex II: Y46 - Y47).	47523	metric tonnes
Total amount of hazardous wastes and other wastes exported	317528	metric tonnes
Total amount of controlled waste other than the waste above	1147249	metric tonnes
Total amount of waste controlled within the provisions of the import country	75630	metric tonnes
Total amount of controlled waste exported.	1540407	metric tonnes

Remark: The amount 0 is a rounded 0 and means exactly any amount between 0 and 0.5 metric tonnes

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount exported (tons)	Country/ countries of transit	Country of import	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
Y2		A4010		H6.1		115		CH	D10	
Y2		A4010		H6.1		38		FR	D10	
Y2		A4010		H12		2 074		FR		R5
Y2		A4010		H12		25		FR	D10	
Y5		A4040		H11		187		AT		R1
Y5		A4040		H11		408		AT		R3
Y5		A4040		H11		5 185		NL		R3
Y5		A4040		H11		2 660		SE		R1
Y5		A4040		H11		23 256		SE		R3
Y5		A4040		H11		1 546	DK	SE		R1

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount exported (tons)	Country/ countries of transit	Country of import	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
Y6		A3140		H3		1 898		AT		R1
Y6		A3140		H3		1 223		BE		R1
Y6		A3150		H6.1		2 661		BE		R5
Y46		--		--		30 633		CH	D10	
Y46		--		--		4 706		NL		R3
Y46		--		--		12 184	FR	CH	D10	
--	Mixed hazardous waste	--		H4.1		212		BE		R4
--	Hazardous waste from production of metals	--		H4.3		832		CZ		R4
--	Hazardous waste from the production of metals	--		H4.3		4 069		NO		R4
--	Hazardous waste from the production of metals	--		H4.3		104	BE FR	ES		R4
--	Hazardous waste from the production of metals	--		H4.3		315	NL BE	NO		R4
--	Hazardous waste from power stations	--		H11		318		FR		R4
--	Contaminated packaging material	--		H12		2 463		AT		R1
--	Contaminated soil	--		H12		13 307		NL		R5
--	Contaminated soil	--		H12		35 438		NL	D10	
--	Asphalt cement wastes	--		--		489		NL		R12
--	Asphalt cement wastes	--		--		4 568		NL		R4
--	Cable waste	--		--		277		BE		R4
--	Cable waste	--		--		6 480		NL		R4
--	Cable waste	--		--		677		SE		R4
--	Electronic scrap	B1110		--		12		BE		R4
--	Electronic scrap	B1110		--		16		NL		R4
--	Manure, faeces	--		--		2 434		AT		R3
--	Manure, faeces	--		--		126		AT		R5
--	Mixed construction and demolition waste	--		--		298		AT		R10
--	Mixed construction and demolition waste	--		--		5 014		FR		R5

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount exported (tons)	Country/ countries of transit	Country of import	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
--	Mixed construction and demolition waste	--		--		980	NL	BE		R4
--	Mixed packaging waste	--		--		8 849		AT		R1
--	Mixed packaging waste	--		--		936		FR		R4
--	Mixed waste	--		--		2 669		BE		R1
--	Mixed waste	--		--		928		BE		R3
--	Mixed waste	--		--		5		CH		R3
--	Mixed waste	--		--		2 853	LU	BE		R1
--	Mixed waste	--		--		5	NL	GB		R4
--	Municipal sewage sludge	--		--		0		AT		R10
--	Municipal sewage sludge	--		--		450		AT	D10	
--	Shredder residues	--		--		8227	LU	BE		R4
--	Waste not otherwise specified	--		--		1121		NL		R3
--	Wastes from the preparation of water	--		--		700		DK		R4
--	Wastes of the manufacture of iron and steel	--		--		388 350		FR		R4
--	Wastes of the manufacture of iron and steel	--		--		7 604	BE NL	FR		R4
--	Wood waste treated with paint, glue etc.	--		--		605		DK		R1
--	Wood waste treated with paint, glue etc.	--		--		111 005	AT CH	IT		R3
--	Wood waste treated with paint, glue etc.	--		--		48 178	CH	IT		R3
--	Wood waste treated with paint, glue etc.	--		--		20 324	CH AT	IT		R3
--	Wood waste treated with paint, glue etc.	--		--		4 270	FR	IT		R3
--	Wood waste treated with paint, glue etc.	--		--		17 168	NL	BE		R3
--	Zinc ashes and residues	B1080		--		6 352		FR		R4

Part 2: Import of hazardous wastes and other wastes in 2001

Total amounts imported:

Total amount of hazardous wastes under Art. 1 (1)a (Annex I: Y1 - Y45) imported	379 602	tons
Total amount of hazardous wastes under Art. 1 (1)b imported	419 461	tons
Total amount of other wastes imported (Annex II: Y46 - Y47).	216 130	tons
Total amount of hazardous wastes and other wastes imported	1 015 193	tons
Total amount of controlled waste other than the waste above	1 614 854	tons
Total amount of controlled waste imported.	2 630 047	tons

Remark: The amount 0 is a rounded 0 and means exactly any amount between 0 and 0.5 metric tonnes

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount imported (metric tonnes)	Country/ countries of transit	Country of origin	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
Y1		A4010		H6.1		89	FR	ES	D10	
Y1		A4010		H6.1		62		ES	D10	
Y1		A4020		H6.2		22		BA	D10	
Y1		A4020		H6.2		4	HR HU AT	BA	D10	
Y1		A4020		H6.2		0	MK GR NL	YU	D10	
Y2		A4010		H3		3 970	NL	IE	D10	
Y2		A3140		H3		838		IE	D10	
Y2		A4010		H3		2463		IE	D10	
Y2		A4010		H3		77	NL	IE		R1
Y46		--		--		94 232		IT	D10	
Y46		--		--		2 735		LU		R1
Y46		--		--		1 392		LU		R10

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount imported (metric tonnes)	Country/ countries of transit	Country of origin	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
Y46		--		--		419		LU		R13
Y46		--		--		6 217		LU		R3
Y46		--		--		6		MV	D10	
Y46		--		--		9 959		NL		R1
Y46		--		--		514		NL		R13
Y47		--		--		10 425		AT		R5
Y47		--		--		8 926		DK		R4
Y47		--		--		731		DK		R13
Y47		--		--		3 361		NL		R5
Y47		--		--		80		SE		R4
Y47		--		--		3 885	DK	SE		R4
--	Mixed hazardous waste	--		H3		34		GR	D10	
--	Mixed hazardous waste	--		H3		106		IE	D10	
--	Contaminated packaging material	--		H4.1		1	MT	TR	D10	
--	Contaminated packaging material	--		H4.1		45		YU	D15	
--	Contaminated packaging material	--		H4.1		58	MK GR NL	YU	D13	
--	Hazardous waste from metal production	--		H4.3		20 580		AT		R4
--	Hazardous waste from metal production	--		H4.3		98		CA		R4
--	Contaminated soil	--		H12		115 662		LU		R5
--	Contaminated soil	--		H12		1 003		LU	D9	
--	Contaminated soil	--		H12		3 645		LU	D1	
--	Hazardous waste from waste incineration plants	--		H12		10 107		BE		R5
--	Hazardous waste from waste incineration plants	--		H12		32 116		CH	D12	
--	Hazardous waste from waste incineration plants	--		H12		534		DK	D12	
--	Hazardous waste from waste incineration plants	--		H12		35 351		DK		R5
--	Copper ashes and residues	B1070		--		658		ZA		R4

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount imported (metric tonnes)	Country/ countries of transit	Country of origin	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
--	Copper ashes and residues	B1070		--		341	BE	ZA		R4
--	Electronic scrap	B1110		--		60	FR	CH		R4
--	Electronic scrap	--		--		323		LU	D10	
--	Electronic scrap	B1110		--		618		LU		R4
--	Industrial sewage sludge	--		--		141		BE		R3
--	Industrial sewage sludge	--		--		18 182		BE	D10	
--	Industrial sewage sludge	--		--		149		CH	D12	
--	Manure, faeces	--		--		109 709		NL		R10
--	Mixed construction and demolition waste	--		--		77 568		NL		R1
--	Mixed construction and demolition waste	--		--		9 179		NL		R13
--	Mixed construction and demolition waste	--		--		54 102		NL		R3
--	Mixed construction and demolition waste	--		--		93		SE		R4
--	Mixed packaging waste	--		--		91 738		NL		R3
--	Mixed packaging waste	--		--		41 927		NL		R13
--	Municipal sewage sludge	--		--		54 663		BE	D10	
--	Municipal sewage sludge	--		--		8 218		CH		R1
--	Rejects from pulping of waste paper	--		--		67 000		NL		R1
--	Residues from treatment of TSE risk material	--		--		8 192		FR	D10	
--	Sands used in foundry operations	--		--		183		BE		R5
--	Shredder residues	--		--		453		CH		R2
--	Shredder residues	--		--		17 552		CH		R4
--	Soil and stones	--		--		4 994	AT	IT	D1	
--	Soil and stones	--		--		42 091		LU		R5
--	Spent catalysts not listed in Annex II	--		--		104		BE		R4
--	Spent catalysts not listed in Annex II	--		--		43		CH		R4
--	Used batteries and accumulaters	--		--		428		BE		R4

Category of waste			Hazardous characteristics (Annex III)							
Annexes I and II		Annex VIII	UN class	H' code	Characteristics	Amount imported (metric tonnes)	Country/ countries of transit	Country of origin	Final disposal operation (Annex IV A) D code	Recovery operation (Annex IV B) R code
Y code	Waste Streams/ wastes having as constituents									
--	Wastes of the manufacture of iron and steel	--		--		53 616		AT		R4
--	Wastes of the manufacture of iron and steel	--		--		1 626		BE		R12
--	Wastes of the manufacture of iron and steel	--		--		9		NL		R13
--	Wood waste treated with paint, glue etc.	--		--		128	NL	BE		R3
--	Wood waste treated with paint, glue etc.	--		--		187 164		NL		R3
--	Wood waste treated with paint, glue etc.	--		--		66 425		NL		R1
--	Wood waste treated with paint, glue etc.	--		--		21 007		NL		R13
--	Zinc ashes and residues	B1080		--		1 398		AT		R4

Annex 2: Correspondence EWCSTAT to the Basel Lists

The following table contains the correspondence between the EWCSTAT aggregation of Annex I in the waste statistics Regulation (the numbering included in the column 'Item N°' represents the aggregation of EWCSTAT as included in Annex I of the Regulation) and the classification of the Combined Nomenclature and the lists in the Basel Convention.

It is also indicated in the table which of these two data collection systems (the waste shipment Regulation (WSR) or the foreign trade statistics (FTS)) could provide for data concerning these aggregations of EWCSTAT.

His table can be used to

1. provide for the correct aggregation of data coming from reports produced on the basis of data in the WSR or the FTS.
2. Identify EWCSTAT codes for which neither of the two systems could provide for data.

The second part of the Annex includes a table for the export of waste, based upon the data included in the report of Germany to the Secretariat of the Basel Convention for the year 2002, produced in the breakdown in EWCSTAT aggregates as specified in Annex I section 2 of the waste statistics Regulation.

Correspondence table between EWCSTAT and the Combined nomenclature and the lists of the Basel convention

Item No	EWCStat-Code	Description	Hazardous/ Non-Hazardous	Source for Statistics	Combined Nomenclature	Basel-Codes
1	01.1	Spent solvents	Hazardous	WSR	38254	A3140; A3150; AC150; AC160
2	01.2	Acid, alkaline or saline wastes	Non-Hazardous			B2120
3	01.2	Acid, alkaline or saline wastes	Hazardous	WSR		A1060; A4090; AD090
4	01.3	Used oils	Hazardous	WSR	27109900	A3020
5	01.4	Spent chemical catalysts	Non-Hazardous			B1120; B1130; GC050
6	01.4	Spent chemical catalysts	Hazardous	WSR		A2030
7	02	Chemical preparation wastes	Non-Hazardous			B2090; B4020; Not listed; AC020; AC080; AC250
8	02	Chemical preparation wastes	Hazardous	WSR		A3050; A4020; A4030; A4070; A4080; A4130; A4140; AC070; AC080; AC250; AD120; Not listed
9	03.1	Chemical deposits and residues	Non-Hazardous	WSR		Not listed; B2060; B3030; (AC020; B2090; B3100)
10	03.1	Chemical deposits and residues	Hazardous	WSR		A3160; A3190; A4060; A4160; Not listed
11	03.2	Industrial effluent sludges	Non-Hazardous	WSR		Not listed
12	03.2	Industrial effluent sludges	Hazardous	WSR		Not listed
13	05	Health care and biological wastes	Non-Hazardous	WSR	38253000	Not listed
14	05	Health care and biological wastes	Hazardous	WSR	38253000	Not listed

Item No	EWCStat-Code	Description	Hazardous/ Non-Hazardous	Source for Statistics	Combined Nomenclature	Basel-Codes
15	06	Metallic wastes	Non-Hazardous	FTS		B1010; B1020; GA300; B1050
16	06	Metallic wastes	Hazardous	WSR		A1010
17	07.1	Glass wastes	Non-Hazardous	FTS	70010010	B2020; GE020
18	07.1	Glass wastes	Hazardous	WSR		A2010
19	07.2	Paper and cardboard wastes	Non-Hazardous	FTS	4707	B3020
20	07.3	Rubber wastes	Non-Hazardous	FTS	ex 4012	B3140
21	07.4	Plastic wastes	Non-Hazardous	FTS	3915	B3010
22	07.5	Wood wastes	Non-Hazardous	FTS	440130	AC170; B3050
23	07.5	Wood wastes	Hazardous	WSR		A4040; AC170
24	07.6	Textile wastes	Non-Hazardous	FTS	6309; 6310; ex 5; ex 6	B3030
25	07.7	Waste containing PCB	Hazardous	WSR	partly 27109900	A3180
26	08	Discarded equipment	Non-Hazardous	FTS	854890	B4030; GC01; GC020
27	08	Discarded equipment	Hazardous	WSR		A1180
28	08.1	Discarded vehicles	Non-Hazardous			B1250 (1:1)

Item No	EWCStat-Code	Description	Hazardous/ Non-Hazardous	Source for Statistics	Combined Nomenclature	Basel-Codes
29	08.1	Discarded vehicles	Hazardous	WSR		Not listed
30	08.41	Batteries and accumulators wastes	Non-Hazardous	FTS	854890	B1090
31	08.41	Batteries and accumulators wastes	Hazardous	WSR		A1160; A1170; A1030 (Mercury batteries); Not listed
32	09	Animal and vegetal wastes (excluding animal waste of food preparation and products; and excluding animal faeces, urine and manure)	Non-Hazardous	FTS		B3060 or not listed
33	09.11	Animal waste of food preparation and products	Non-Hazardous	FTS		B3060 or not listed
34	09.3	Animal faeces, urine and manure	Non-Hazardous	WSR	31010000	AC260
35	10.1	Household and similar wastes	Non-Hazardous	WSR	partly 38251000	Y46; Not listed
36	10.2	Mixed and undifferentiated materials	Non-Hazardous	WSR		Not listed
37	10.2	Mixed and undifferentiated materials	Hazardous	WSR		Not listed
38	10.3	Sorting residues	Non-Hazardous	WSR		Not listed
39	10.3	Sorting residues	Hazardous	WSR		A3120; Not listed
40	11	Common sludges (excluding dredging spoils)	Non-Hazardous	WSR		AC270, Not listed

Item No	EWCStat-Code	Description	Hazardous/ Non-Hazardous	Source for Statistics	Combined Nomenclature	Basel-Codes
41	11.3	Dredging spoils	Non-Hazardous	WSR		Not listed
42	12.1 + 12.2 + 12.3 + 12.5	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Non-Hazardous			B1100; B2110; B2040; GF010; GF020; AB070; AB130; Not listed
43	12.1 + 12.2 + 12.3 + 12.5	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Hazardous	WSR		A1070; A2050; A3120; A3190; AB070; AB130; Not listed
44	12.4	Combustion wastes	Non-Hazardous	FTS/WSR	2618; 2619; ex2620; 2621	B1070; B1080; B1100; B1210; AA010; GB040; Y47
45	12.4	Combustion wastes	Hazardous	WSR		A1020; A4100; A1100; AA010;
46	12.6	Contaminated soils and polluted dredging spoils	Hazardous	WSR		Not listed
47	13	Solidified, stabilised or vitrified wastes	Non-Hazardous	WSR		Not listed
48	13	Solidified, stabilised or vitrified wastes	Hazardous	WSR		Not listed

Exports of waste data included in the report for 2002 of Germany to the Secretariat of the Basel Convention, reported in the format of annex I section 2 of the waste statistics Regulation

Item No	Description		Amount (tons)
1	Spent solvents	Hazardous	16 459
2	Acid, alkaline or saline wastes	Non-Hazardous	210
3	Acid, alkaline or saline wastes	Hazardous	34 468
4	Used oils	Hazardous	8 020
5	Spent chemical catalysts	Non-Hazardous	92
6	Spent chemical catalysts	Hazardous	545
7	Chemical preparation wastes	Non-Hazardous	925
8	Chemical preparation wastes	Hazardous	8 739
9	Chemical deposits and residues	Non-Hazardous	723
10	Chemical deposits and residues	Hazardous	32 758
11	Industrial effluent sludges	Non-Hazardous	35 279
12	Industrial effluent sludges	Hazardous	1 548
13	Health care and biological wastes	Non-Hazardous	1 462
15	Metallic wastes	Non-Hazardous	10 590
16	Metallic wastes	Hazardous	2 506
19	Paper and cardboard wastes	Non-Hazardous	77 113
21	Plastic wastes	Non-Hazardous	35
22	Wood wastes	Non-Hazardous	344 342
23	Wood wastes	Hazardous	7 489
24	Textile wastes	Non-Hazardous	709
25	Waste containing PCB	Hazardous	356
26	Discarded equipment	Non-Hazardous	743
27	Discarded equipment	Hazardous	162
30	Batteries and accumulators wastes	Non-Hazardous	1 393
31	Batteries and accumulators wastes	Hazardous	20 066
32	Animal and vegetal wastes (excluding animal waste of food preparation and products; and excluding animal faeces, urine and manure)	Non-Hazardous	4 320
34	Animal faeces, urine and manure	Non-Hazardous	16 740
35	Household and similar wastes	Non-Hazardous	38 883
36	Mixed and undifferentiated materials	Non-Hazardous	12 923
38	Sorting residues	Non-Hazardous	6 830
39	Sorting residues	Hazardous	1 297
40	Common sludges (excluding dredging spoils)	Non-Hazardous	5 238
42	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Non-Hazardous	24 487
43	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Hazardous	29 888
44	Combustion wastes	Non-Hazardous	74 857
45	Combustion wastes	Hazardous	417 448
46	Contaminated soils and polluted dredging spoils	Hazardous	19 987
48	Solidified, stabilised or vitrified wastes	Hazardous	3 148
Total			1 262 775

Imports of waste data included in the report for 2002 of Germany to the Secretariat of the Basel Convention, reported in the format of annex II section 2 of the waste statistics Regulation

Part 1. Disposal (other than incineration)

Item No	Description		Amount [tons]
1	Chemical wastes, excluding Used oils (Chemical compound waste + Chemical preparation wastes + Other chemical wastes)	Non-Hazardous	536
2	Chemical wastes, excluding Used oils (Chemical compound waste + Chemical preparation wastes + Other chemical wastes)	Hazardous	14.059
3	Used oils	Non-Hazardous	0
4	Used oils	Hazardous	546
5	Animal and vegetal wastes (excluding animal waste of food preparation and products; and excluding animal faeces, urine and manure)	Non-Hazardous	0
6	Animal waste of food preparation and products	Non-Hazardous	0
7	Animal faeces, urine and manure	Non-Hazardous	0
8	Household and similar waste	Non-Hazardous	391
9	Mixed and undifferentiated materials	Non-Hazardous	2
10	Sorting residues	Non-Hazardous	15.716
11	Common sludges	Non-Hazardous	3.215
12	Mineral wastes	Non-Hazardous	23.571
13	Mineral wastes	Hazardous	107.210
14	Other wastes (Health care and biological wastes + Metallic wastes + Non-metallic wastes + Discarded equipment + Solidified, stabilised or vitrified wastes)	Non-Hazardous	4.683
15	Other wastes (Health care and biological wastes + Metallic wastes + Non-metallic wastes + Discarded equipment + Solidified, stabilised or vitrified wastes)	Hazardous	5.581
			5.006
	Total Disposal (other than incineration)		**180.516**

Part 2. Incineration

Item No	Description		Amount (tons)
1	Chemical wastes excluding Used oils (Chemical compound waste + Chemical preparation wastes + Other chemical wastes)	Non-Hazardous	34 187
2	Chemical wastes excluding Used oils (Chemical compound waste + Chemical preparation wastes + Other chemical wastes)	Hazardous	174 249
3	Used oils	Non-Hazardous	0
4	Used oils	Hazardous	2 128
5	Health care and biological wastes	Non-Hazardous	0
6	Health care and biological wastes	Hazardous	90
7	Household and similar waste	Non-Hazardous	59 207
8	Mixed and undifferentiated materials	Non-Hazardous	99 116
9	Sorting residues	Non-Hazardous	328 179
10	Common sludges	Non-Hazardous	53 172
11	Other wastes (Metallic wastes + Non-metallic wastes + Discarded equipment + Animal and vegetal wastes + Mineral wastes + Solidified, stabilised or vitrified wastes)	Non-Hazardous	413 168
12	Other wastes (Metallic wastes + Non-metallic wastes + Discarded equipment + Animal and vegetal wastes + Mineral wastes + Solidified, stabilised or vitrified wastes)	Hazardous	11 293
			2 878
	subtotal		**1 200 848**

Part 3. Recovery (excluding energy recovery)

Item No	Description		Amount [tons]
1	Used oils	Non-Hazardous	0
2	Used oils	Hazardous	61 794
3	Metallic wastes	Non-Hazardous	23 665
4	Metallic wastes	Hazardous	104
5	Glass wastes	Non-Hazardous	0
6	Paper and cardboard wastes	Non-Hazardous	23 691
7	Rubber wastes	Non-Hazardous	0
8	Plastic wastes	Non-Hazardous	9 648
9	Wood wastes	Non-Hazardous	203 176
10	Textile wastes	Non-Hazardous	0
11	Textile wastes	Hazardous	0
12	Animal and vegetal wastes (excluding animal waste of food preparation and products; and excluding animal faeces, urine and manure)	Non-Hazardous	4 683
13	Animal waste of food preparation and products	Non-Hazardous	0
14	Animal faeces, urine and manure	Non-Hazardous	180.473
15	Mineral waste	Non-Hazardous	444 447
16	Mineral waste	Hazardous	363 273
17	Other Wastes, excluding Used oils (Chemical compound wastes + Chemical preparation wastes + Other chemical wastes + Health care and biological wastes + Discarded equipment + Mixed ordinary wastes + Common sludges + Solidified, stabilised or vitrified waste)	Non-Hazardous	951 738
18	Other Wastes, excluding Used oils (Chemical compound wastes + Chemical preparation wastes + Other chemical wastes + Health care and biological wastes + Discarded equipment + Mixed ordinary wastes + Common sludges + Solidified, stabilised or vitrified waste)	Hazardous	282 111
			1 246
	Total Recovery (excluding energy recovery)		**2 550 048**

Annex 3: Intrastat assimilation thresholds in 2004

For the statistics on waste the assimilation thresholds are particularly relevant. The simplification threshold and 'specific thresholds' Member States may apply have not been included. The values are in Euro and represent the value of exported goods per company per year.

Member State	Amounts in 1 000 tons	
	Dispatch	Arrival
Belgium	250	250
Denmark	336	201
Germany	200	200
Greece	44	29
Spain	120	120
France	100	100
Ireland	635	190
Italy	155	103
Luxembourg	100	100
Netherlands	225	225
Austria	200	200
Portugal	85	60
Finland	100	100
Sweden	164	164
United Kingdom	364	364

Annex 4 Wastes included in the CN and their correspondence with waste classifications

The Combined Nomenclature contains a large number of entries that contain or consist of waste. An overview of these entries is given in the following table. The table also indicates to what extend these entries are to be considered as waste. This elements are important to asses it the particular codes in the Combined Nomenclature can be used to produce data on import and export of waste directly, or that these codes only could be used if the share of waste inside the code is known via additional research or estimation.

The overlap with waste streams included in the waste shipment Regulation is also assessed. If the data in the Combined Nomenclature have a full overlap with data provided in the waste shipment Regulation there is no need to use these data. In case of partial overlap data from the trade statistics could only be used if there is an indication about the magnitude of the overlap.

For the proposed methodology in chapter 4 of the report only those codes where included where this the code consists of waste only and where no overlap with data from the waste shipment Regulation is expected.

The table contains also the correspondence table with of the entries in the Combined Nomenclature with the other relevant waste classification systems. This table serves as the basis for the identification of the relevant codes in the Combined Nomenclature that could be used to produce statistics on wastes according to the EWCSTAT classification in the Annexes of the waste statistics Regulation.

By using the information regarding the NACE codes and/or the link with the List of Waste it is possible for certain waste streams to get an indication of the process generating the waste. This is necessary if a breakdown into NACE codes according to Annex I of the waste statistics Regulation is required.

The indication about the OECD codes was included to provide for a possibility to produce statistics in the necessary format when only data in the OECD format are available. This may be useful for data that are produced until the implementation of the revised waste shipment Regulation and for assessment of historical datasets.

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
4081120	Egg yolks, dried, not suitable for human consumption, whether or not containing added sugar or other sweetening matter	1589	GM 130	B3060	020203	partly	no	9.11	suitability for animal feeding?
4081920	Egg yolks, fresh, cooked by steaming or boiling in water, moulded, frozen or otherwise preserved, whether or not containing added sugar or other sweetening matter, unsuitable for human consumption (excl. dried)	1589	GM 130	B3060	020203	partly	no	9.11	suitability for animal feeding?
4089120	Dried birds' eggs, not in shell, whether or not containing added sugar or other sweetening matter, not suitable for human consumption (excl. egg yolks)	1589	GM 130	B3060	020203	partly	no	9.11	suitability for animal feeding?
4089920	Birds' eggs, not in shell, fresh, cooked by steaming or by boiling in water, moulded, frozen or otherwise preserved, whether or not containing added sugar or other sweetening matter, not suitable for human consumption (excl. dried and egg yolks)	1589	GM 130	B3060	020203	partly	no	9.11	suitability for animal feeding?
5010000	Human hair, unworked, whether or not washed or scoured; waste of human hair	9302	GO 010	B3070	--	partly	no	9.11	
5021000	Pigs', hogs' or boars' bristles and hair and waste thereof	1511	GN 010	--	--	partly	no	9.11	
5029000	Other	1511	GN 010	--	--	partly	no	9.11	
5030000	Horsehair and horsehair waste, whether or not put up as a layer with or without supporting material	0122	GN 020	--	--	partly	no	9.11	
5051010	Raw feathers used for stuffing and down, whether or not de-dusted, disinfected or simply cleaned	1512	--			partly	yes	9.11	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
5059000	Other	1512	GN 030	--	--	yes	no	9.11	
5061000	Ossein and bones treated with acid	1511				no	no	9.11	
5069000	Other bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised; powder and waste of these products	1511	GM 100	B3060		partly	no	9.11	
5071000	Ivory, ivory powder and waste	1511	--	--	--	partly	yes	9.11	
5079000	Tortoise-shell, whalebone and whalebone hair, horns, antlers, hooves, nails, claws and beaks, unworked or simply prepared, their powder and waste (excl. cut to shape and ivory)	1511				partly	yes	9.11	
5080000	Coral and similar materials, shells of molluscs, crustaceans or echinoderms, cuttle-bone, powder and waste thereof, unworked or simply prepared but not otherwise worked or cut to shape	0500				partly	yes	9.11	
5119110	Fish waste	1520	GM 110	B3060	ex 020202	only	no	9.11	
5119190	Products of fish or crustaceans, molluscs or other aquatic invertebrates (excl. fish waste); dead fish, crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption	1520				partly	no	9.11	
5119910	Sinews or tendons of animal origin, parings and similar waste of raw hides or skins	1511				partly	no	9.11	
5119990	Animal products, n.e.s.; dead animals, unfit for human consumption (excl. fish, crustaceans, molluscs and other aquatic invertebrates)	1511	GM 130	B3060	020203	partly	no	9.11	
9019010	Coffee husks and skins	1586	GM 130	B3060	020203	only	no	9.12	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
12130000	Cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets	0111				not waste	no	9.12	
15220039	Residues from treatment of fatty substances containing oil with characteristics of olive oil (excl. soapstocks)	1542	GM 130	B3060	ex 020304	not waste	no	9.12	
15220091	Oil foots and dregs; soapstocks (excl. those containing oil with characteristics of olive oil)	1542				only	no	9.12	
15220099	Other degras residues resulting from the treatment of fatty substances or animal or vegetable waxes	1542	GM 090	B3060	ex 020303	only	no	9.12 / 9.11	
18020000	Cocoa shells, husks, skins and other cocoa waste	1584	GM 120	B3060	ex 020301	only	no	9.12	
23011000	Flours, meals and pellets, of meat or offal, unfit for human consumption; greaves	1513				partly	no	9.11	suitability for animal feeding?
23012000	Flours, meals and pellets of fish or crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption	1520				partly	no	9.11	suitability for animal feeding?
23021010	Bran, sharps and other residues of maize, whether or not in the form of pellets, derived from sifting, milling or other working, with starch content of <= 35%	1561				not waste	no	9.12	
23021090	Bran, sharps and other residues of maize, whether or not in the form of pellets, derived from sifting, milling or other working, with starch content of > 35%	1561				not waste	no	9.12	
23022010	Bran, sharps and other residues of rice, whether or not in the form of pellets, derived from sifting, milling or other working, with starch content of <= 35%	1561				not waste	no	9.12	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
23022090	Bran, sharps and other residues of rice, whether or not in the form of pellets, derived from sifting, milling or other working, with starch content of > 35%	1561				not waste	no	9.12	
23023010	Bran, sharps and other residues, whether or not in the form of pellets, derived from the sifting, milling or other working of wheat, with a starch content of <= 28% by weight, and of which the proportion that passes through a sieve with an aperture of 0,2 mm is <= 10% by weight or alternatively the proportion that passes through the sieve has an ash content, calculated on the dry product, of >= 1,5% by weight	1561				not waste	no	9.12	
23023090	Bran, sharps and other residues of wheat, whether or not in the form of pellets, derived from sifting, milling or other working (excl. those with starch content of <= 28%, provided that either <= 10% passes through a sieve with an aperture of 0,2 mm or if > 10% passes through, the proportion that passes through the sieve has an ash content, calculated on the dry product, of >= 1,5% by weight)	1561				not waste	no	9.12	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
23024010	Bran, sharps and other residues, in the form of pellets or not, derived from the sifting, milling or other working of cereals, with a starch content <= 28% by weight, and of which <= 10% by weight passes through a sieve with an aperture of 0,2 mm or, if > 10% passes through, the proportion that passes through the sieve has an ash content, calculated on the dry product, of >= 1,5% by weight (excl. bran, sharps and other residues of maize, rice or wheat)	1561				not waste	no	9.12	
23024090	Bran, sharps and other residues of cereals, whether or not in the form of pellets, derived from sifting, milling or other working (excl. those of maize, rice and wheat and those with a starch content of <= 28%, provided that either <=10% passes through a sieve with an aperture of 0,2 mm or, if > 10% passes through, the proportion that passes through has an ash content of >= 1,5%)	1561				not waste	no	9.12	
23025000	Bran, sharps and other residues of leguminous plants, whether or not in the form of pellets, derived from sifting, milling or other working	1561				partly	no	9.12	
23031011	Residues from the manufacture of starch from maize, of a protein content, calculated on the dry product, of > 40% by weight (excl. concentrated steeping liquors)	1562				not waste	no	9.12	
23031019	Residues from the manufacture of starch from maize, of a protein content, calculated on the dry product, of <= 40% by weight (excl. concentrated steeping liquors)	1562				not waste	no	9.12	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
23031090	Residues of starch manufacture and similar residues, incl. concentrated steeping liquors (excl. of starch from maize)	1562				not waste	no	9.12	
23032011	Beet-pulp having a dry matter content of >= 87% by weight	1583				no	no	9.12	
23032018	Beet-pulp having a dry matter content of < 87% by weight	1583				not waste	no	9.12	
23032090	Bagasse and other waste of sugar manufacture (excl. beet pulp)	1583				not waste	no	9.12	
23033000	Brewing or distilling dregs and waste	1596	GM 130	B3060	020304	only	no	9.12	
23040000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya-bean oil	1541	GM 130	B3060	020304	partly	no	9.12	
23050000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of ground-nut oil	1541	GM 130	B3060	020304	partly	no	9.12	
23061000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of cotton seeds	1541	GM 130	B3060	020304	partly	no	9.12	
23062000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of linseed	1541	GM 130	B3060	020304	partly	no	9.12	
23063000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of sunflower seeds	1541	GM 130	B3060	020304	partly	no	9.12	

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23064100	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of low erucic acid rape or colza seeds "yielding a fixed oil which has an erucic acid content of < 2% and yielding a solid component of glucosinolates of < 30 micromoles/g"	1541	GM 130	B3060	020304	partly	no	9.12	
23064900	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of high erucic acid rape or colza seeds "yielding a fixed oil which has an erucic acid content of >= 2% and yielding a solid component of glucosinolates of >= 30 micromoles/g"	1541	GM 130	B3060	020304	partly	no	9.12	
23065000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of coconut or copra	1541	GM 130	B3060	020304	partly	no	9.12	
23066000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of palm nuts or kernels	1541	GM 130	B3060	020304	partly	no	9.12	
23067000	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable fats or oils from maize "corn" germ	1541	GM 130	B3060	020304	partly	no	9.12	
23069011	Oil-cake and other solid residues from the extraction of olive oil, whether or not ground or in the form of pellets, containing <= 3% olive oil	1541	GM 130	B3060	020304	partly	no	9.12	
23069019	Oil-cake and other solid residues from the extraction of olive oil, whether or not ground or in the form of pellets, containing > 3% olive oil	1541	GM 130	B3060	020304	partly	no	9.12	

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23069090	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable fats or oils (excl. of cotton seeds, linseed, sunflower seeds, rape or colza seeds, coconut or copra, palm nuts or kernels, germ of maize, and from the extraction of olive, soya-bean and ground-nut oil)	1541	GM 130	B3060	020304	partly	no	9.12	
23070011	Wine lees having a total alcoholic strength by mass not exceeding 7,9 % mas and a dry matter content not less than 25 % by weight	1593	GM 070	B3060	--	only	no	9.12	
23070019	Other wine lees	1593	GM 070	B3060	--	only	no	9.12	
23080011	Grape marc, of a kind used in animal feeding, whether or not in the form of pellets, having a total alcoholic strength by mass of <= 4,3% mas and a dry matter content of <= 40% by weight	1533	--	--	--	not waste	no	9.12	
23080019	Grape marc, of a kind used in animal feeding, whether or not in the form of pellets (excl. grape marc having a total alcoholic strength by mass of <= 4,3% mas and a dry matter content of <= 40% by weight)	1533	--	--	--	not waste	no	9.12	
23080040	Acorns and horse-chestnuts; pomace or marc of fruit, other than grapes	1533	GM 080	B3060	20103	only	no	9.12	
23080090	Other	1533	GM 080	B3060	20103	only	no	9.12	
23089030	Pomace or marc of fruit, other than grapes	1533	GM 080	B3060	20103	only	no	9.12	
23089090	Other vegetable materials and vegetable waste, vegetable residues and by-products, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included	1533	GM 080	B3060	20103	partly	no	9.12	

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23099010	Fish or marine mammal solubles, to supplement feedingstuffs produced in the agricultural sector	1571	--	--	--	not waste	no	9.11	
23099020	Residues from the manufacture of starch from maize referred to in Additional Note 5 to chapter 23, of a kind used in animal feeding (excl. dog or cat food put up for retail sale)	1571				not waste	no	9.12	
24013000	Tobacco refuse	1600	--	--	ex 020399	only	no	9.12	Not listed
24039100	Tobacco, "homogenized" or "reconstituted" from finely-chopped tobacco leaves, tobacco refuse or tobacco dust	1600	--	--	ex 020399	partly	no	9.12	
25140000	Slate, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a square or rectangular shape; slate powder and slate refuse	1413	GD 020	B2010	170102	partly	no	12	not waste in German version of CN
25172000	Macadam of slag, dross or similar industrial waste, whether or not incorporating pebbles, gravel, shingle and flint for concrete aggregates, for road metalling or for railway or other ballast	1421	--	--	--	not waste	no	12	
25253000	Mica waste	1450	GD 030	B2010	--	only	no	12	
26180000	Granulated slag (slag sand) from the manufacture of iron or steel	2710	GC 070	B1200	100202	only	no	12	
26190010	Blast-furnace dust (ECSC)	2710	AA 010	B1210	ex 1002	only	yes	12	
26190091	Waste suitable for the recovery of iron or manganese	2710	GC 070	B1210 B1230	100208 / 100214 / 100215 / 100210	only	no	12	
26190093	Slag from the manufacture of iron or steel suitable for the extraction of titanium oxide	2710	AA 010	AA 010	100201 100202	only	no	12	
26190095	Waste suitable for the extraction of vanadium	2710	GC 070	B1210	100202	only	no	12	

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26190099	Other slag and waste from the manufacture of iron or steel	2710	GC 070	B1210	100202	only	no	12	
26201100	Hard zinc spelter	2743	GB 010	B1100	ex 1005	only	no	12	
26201900	Ash and residues containing mainly zinc (excl. hard zinc spelter)	2743	GB 020 AA 020	A1070 B1080 B1100	ex 1005	only	partly	12	
26202100	Leaded gasoline sludges and leaded anti-knock compound sludges, obtained from storage tanks of leaded gasoline and leaded anti-knock compounds and contraining mainly lead, lead compounds and iron oxide	2743	AA 030	A1010 A1020	ex 1005	only	yes	3	
26202900	Ash and residues containing mainly lead (excl. leaded gasoline sludges and leaded anti-knock compound sludges)	2743	AA 030	A1010 A1020	ex 1005	only	yes	12	
26203000	Ash and residues containing mainly copper	2744	AA 040	A1100 A1110 A1120 A1130 A1140 A1150 B1070	1006	only	partly	12	
26204000	Ash and residues containing mainly aluminium	2742	AA 050	--	1003	only	partly	12	

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26206000	Ash and residues, containing arsenic, mercury, thallium or their mixtures, of a kind used for the extraction of arsenic or those metals or for the manufacture of their chemical compounds (excl. those from the manufacture of iron or steel)	2745	AA 100 AA 090 AA 080	A1030 A1030	050701 060403 060404 100403 060703 101401 160108 160603 170901 200121	only	yes	12	
26209100	Ash and residues, containing antimony, beryllium, cadmium, chromium or their mixtures (excl. those from the manufacture of iron or steel)	2745		A1010		only	yes	12	
26209910	Ash and residues containing mainly nickel	2745	AA 070	--	1008	only	partly	12	
26209920	Ashes and residues containing mainly niobium and tantalum	2745	GC 110 GC 130	B1031 GC110 GC130	1008	only	no	12	
26209930	Ashes and residues containing mainly tungsten	2745	GC 100	B1031	1008	only	no	12	
26209940	Ash and residues containing mainly tin	2745				only	partly	12	
26209950	Ashes and slag containing mainly molybdenum	2745	GC 090	B1031 GC090	1008	only	no	12	
26209960	Ashes and slag containing mainly titanium	2745	GC 120	B1031 GC120	1008	only	no	12	
26209970	Ash and residues containing mainly cobalt	2745	AA 070	--	1008	only	partly	12	
26209980	Ash and residues containing mainly zirconium	2745	AA 070		1008	only	partly	12	

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26209990	Ash and residues containing metals or metal compounds (excl. those from the manufacture of iron or steel and those containing primarily zinc, lead, copper, aluminium, nickel, niobium, tantalum, tungsten, tin, molybdenum, titanium, cobalt or zirconium, those containing arsenic, mercury, thallium or their mixtures of a kind used for the extraction of arsenic or those metals or for the manufacture of their chemical compounds and those containing antimony, beryllium, cadmium, chromium or their mixtures)	2745	AA 070		1008	only	partly	12	
26210000	Other slag and ash, including seaweed ash (kelp)	1450	GG 080 GG 030 GG 040 GG 110		100101 / 100102 / 100601/ 010309	only	no	12	
26219000	Other ashes and slag	1450	GG030 GG 040	B2050	1008	only	no	12	
27109100	Waste oils containing polychlorinated biphenyls [PCBs], polychlorinated terphenyls [PCTs] or polybrominated biphenyls [PBBs]	2320	RA 010	A3180	130101 130301	only	yes	7.7	

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27109900	Waste oils containing mainly petroleum or bituminous minerals (excl. those containing polychlorinated biphenyls [PCBs], polychlorinated terphenyls [PCTs] or polybrominated biphenyls [PBBs])	2320	AC 030	A3020	130109 130110 130111 130112 130113 130204 130205 130206 130207 130208 130306 130307 130308 130309 130310	only	yes	1.3	
27139010	Residues of petroleum oil or of oil obtained from bituminous minerals for the manufacture of carbon of heading 2803	2320	AD 060	A3020		only	yes	3	
27139090	Residues of petroleum oil or of oil obtained from bituminous minerals (excl. for the manufacture of carbon of heading 2803, petroleum coke and petroleum bitumen)	2320		A3020 A4062		only	yes	3	
28441010	Natural uranium, crude; waste and scrap, of natural uranium [Euratom]	2330	--	--	EURATOM	out of scope	no	4	
28443055	Thorium, crude; waste and scrap, of thorium [Euratom]	2330	--	--	EURATOM	out of scope	no	4	
28445000	Spent "irradiated" fuel elements "cartridges" of nuclear reactors [Euratom]	4011	--	--	EURATOM	out of scope	no	4	
30068000	Waste pharmaceuticals	2442	AD 010	A4010		only	yes	2	

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31010000	Animal or vegetable fertilisers, whether or not mixed together or chemically treated; fertilisers produced by the mixing or chemical treatment of animal or vegetable products	2415	AC 260	AC 260	020106	only?	yes		
31032000	Basic slag	2415	--	--		only	?	12	
35021110	Egg albumin, dried "e.g. in sheets, scales, flakes, powder", unfit, or to be rendered unfit, for human consumption	1589				partly	no	9.11	Suitability for animal feeding?
35021910	Egg albumin, unfit, or to be rendered unfit, for human consumption (excl. dried [e.g. in sheets, scales, flakes, powder])	1589				partly	no	9.11	Suitability for animal feeding?
35022010	Milk albumin "lactalbumin", incl. concentrates of two or more whey proteins, containing by weight > 80% whey proteins, calculated on the dry matter, unfit, or to be rendered unfit, for human consumption	2462				partly	no	9.11	Suitability for animal feeding?
35029020	Albumins, unfit, or to be rendered unfit, for human consumption (excl. egg albumin and milk albumin [incl. concentrates of two or more whey proteins containing by weight > 80% whey proteins, calculated on the dry matter])	2462				partly	no	9.11	Suitability for animal feeding?
38040010	Sulphite lye, concentrated	2414	--	--	--	not waste	no	1	
38040090	Residual lyes from the manufacture of wood pulp, whether or not concentrated, desugared or chemically treated, incl. lignin sulphonates (excl. sulphite lye, crude tall oil, sodium hydroxide "caustic soda" and sulphate pitch)	2414	--	--	--	not waste	no	1	

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38249099	Chemical products and preparations of the chemical or allied industries, incl. those consisting of mixtures of natural products, n.e.s.	2466				partly	yes	3	
38251000	Municipal waste	9002	AD 160	Y46	200301	only	yes	10.1	
38252000	Sewage sludge	9001	AC 270	AC 270	190805 190804?	only	yes	11	
38253000	Clinical waste	2466	--	A4020	1801	only	yes	5	
38254100	Waste organic solvents, halogenated	2466	AC 210	A3140	14 ex 07 ex 08	only	yes	1	
38254900	Waste organic solvents, non-halogenated	2466	AC 220	A3150		only	yes	1	
38255000	Wastes of metal pickling liquors, of hydraulic fluids, brake fluids and anti-freeze fluids	2466	AC 060 AC 070 AC 080	A1060 A3040 A3140	1101	only	yes	1	
38256100	Wastes from chemical or allied industries, mainly containing organic constituents (excl. anti-freeze fluids)	2466			ex 07, ex 08	only	yes	3	Check definition
38256900	Wastes from chemical or allied industries (excl. wastes of metal pickling liquors, of hydraulic fluids, brake fluids and anti-freeze fluids and those mainly containing organic constituents)	2466				only	yes	3	Check definition
38259000	Residual products of the chemical or allied industries, n.e.s. (excl. waste)	2466			ex 06, ex 08	only	partly	3	
39151000	Waste, parings and scrap of polymers of ethylene	2416	GH 011	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39152000	Waste, parings and scrap of polymers of styrene	2416	GH 012	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	

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39153000	Waste, parings and scrap of polymers of vinyl chloride	2416	GH 013	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159011	Waste, parings and scrap of polymers of propylene	2416	GH 014	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159013	Waste, parings and scrap of acrylic polymers	2416	GH 014	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159019	Waste of addition polymerisation products	2416	GH 014	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159091	Waste, parings and scrap of epoxide resins	2416	GH 015	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159093	Waste, parings and scrap of cellulose and its chemical derivatives	2416		B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
39159099	Waste, parings and scrap of other plastics	2416	GH 010	B3010	020104 / 070213 / 120105 / 150102 / 170203 / 200103	only	no	7.4	
40040000	Waste, parings and scrap of rubber (other than hard rubber) and powders and granules obtained therefrom	2513	GK 010	B3040	191204	only	no	7.3	
40122010	Used pneumatic tyres for use on civil aircraft	2511	GK 020	B3040	160103	partly	no	7.3	
40122090	Used pneumatic tyres	2511	GK 020	B3040	160103	partly	no	7.3	
40170010	Hard rubber (for example, ebonite) in all forms, including waste and scrap; articles of hard rubber	2513	GK 030	B3040	191204	partly	no	7.3	

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40170019	Hard rubber (for example, ebonite) in any form, scrap and waste included	2513	GK 030	B3040	191204	partly	no	7.3	
41100000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour	1910	GN 040	B3090	040108 / 040109	only	no	7.6	
41152000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour	1910	GN 040	B3090	040108 / 040109	only	no	7.6	
43022000	Heads, tails, paws and other pieces or cuttings of tanned or dressed furskins, not assembled	1830				partly	no	7.6	
44013010	Sawdust	2010	GL 010	B3050	030105 / 150103 / 200138	only	no	7.5	
44013090	Other wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms	2010	GL 010 AC 170	B3050 (A4040)	030105 / 150103 / 200138 / 200137* / 030104*	only	partly	7.5	
45019000	Cork waste; crushed, powdered or ground cork	2052	GL 010	B3050	030105 / 150103 / 200138 / 200137* / 030104*	partly	no	7.5	Cork not mentioned in List of Waste
47071000	Unbleached kraft paper or paperboard or corrugated paper or paperboard	2112	GI 011	B3020	191201 / 200101/ 150101	only	no	7.2	
47072000	Other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass	2112	GI 012	B3020	191201 / 200101/ 150101	only	no	7.2	
47073010	Old and unsold newspapers and magazines, telephone directories, brochures and printed advertising material	2112	GI 013	B3020	191201 / 200101/ 150101	only	no	7.2	
47073090	Other paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)	2112	GI 013	B3020	191201 / 200101/ 150101	only	no	7.2	

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47079010	Other, including unsorted waste and scrap of paper	2112	GI 014	B3020	191201 / 200101/ 150101	only	no	7.2	
47079090	Other, including sorted waste and scrap of paper	2112	GI 014	B3020	191201 / 200101/ 150101	only	no	7.2	
50031000	Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) not carded or combed	1710	GJ 010	B3030	040221 / 040222	only	no	7.6	
50039000	Other silk waste	1710	GJ 010	B3030	040221 / 040222	only	no	7.6	
51032010	Yarn waste of wool or of fine animal hair	1710	GJ 020	B3030	040221 / 040222	only	no	7.6	
51032091	Waste of wool or fine animal hair not carbonized	1710	GJ 021	B3030	040221 / 040222	only	no	7.6	
51032099	Waste of wool or fine animal hair carbonized	1710	GJ 022	B3030	040221 / 040222	only	no	7.6	
51033000	Waste of coarse animal hair	1710	GJ 023	B3030	040221 / 040222	only	no	7.6	
52021000	Cotton waste (yarn waste)	1710	GJ 031	B3030	040221 / 040222	only	no	7.6	
52029100	Cotton waste (garnetted stock)	1710	GJ 032	B3030	040221 / 040222	only	no	7.6	
52029900	Other cotton waste	1710	GJ 033	B3030	040221 / 040222	only	no	7.6	
53013090	Flax waste, incl. yarn waste and garnetted stock	1710	GJ 040	B3030	040221 / 040222	only	no	7.6	
53029000	True hemp "Cannabis sativa L.", processed but not spun; tow and waste of hemp, incl. yarn waste and garnetted stock (excl. retted hemp)	1710	GJ 050	B3030	040221 / 040222	partly	no	7.6	
53039000	Jute and other textile bast fibres, processed but not spun; tow and waste of such fibres, incl. yarn waste and garnetted stock (excl. retted fibres of this kind, flax, true hemp and ramie)	1710	GJ 060	B3030	040221 / 040222	partly	no	7.6	
53049000	Sisal and other textile fibres of the genus Agave, processed but not spun; tow and waste of such fibres, incl. yarn waste and garnetted stock	1710	GJ 070	B3030	040221 / 040222	partly	no	7.6	

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53051900	Coconut "coir" fibres, processed but not spun; tow, noils and waste of such fibres, incl. yarn waste and garnetted stock	1710	GJ 080	B3030	040221 / 040222	partly	no	7.6	
53052900	Abaca "Manila hemp or Musa textilis Nee", processed but not spun; tow, noils and waste of these fibres, incl. yarn waste and garnetted stock	1710	GJ 090	B3030	040221 / 040222	partly	no	7.6	
53059000	Ramie and other vegetable textile fibres, n.e.s., raw or processed, but not spun; tow, noils and waste of such fibres, incl. yarn waste and garnetted stock	0111	GJ 100	B3030	040221 / 040222	partly	no	7.6	
55051010	Waste (including noils, yarn waste and garnetted stock) of man-made fibres of nylon or other polyamides	2470	GJ 111	B3030	040221 / 040222	only	no	7.6	
55051030	Waste of polyesters	2470	GJ 111	B3030	040221 / 040222	only	no	7.6	
55051050	Waste of acrylic or modacrylic	2470	GJ 111	B3030	040221 / 040222	only	no	7.6	
55051070	Waste of polypropylene	2470	GJ 111	B3030	040221 / 040222	only	no	7.6	
55051090	Waste of other synthetic fibres	2470	GJ 111	B3030	040221 / 040222	only	no	7.6	
55052000	Waste off artificial fibres	2470	GJ 112	B3030	040221 / 040222	only	no	7.6	
56013000	Textile flock and dust and mill neps	1754				partly	no	7.6	
58039010	Gauze of silk or silk waste (excl. narrow woven fabrics of heading 5806)	1720				partly	no	7.6	
63051010	Used sacks and bags, for the packing of goods, of jute or other textile bast fibres of heading 5303	1740				partly	no	7.6	
63090000	Worn clothing and other worn articles	1822	GJ 120	B3030	200110 / 200111	only	no	7.6	
63101010	Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of wool or fine or coarse animal hair, sorted	1752	GJ 130	B3030	150109 / 191208	only	no	7.6	

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63101030	Rags of flax or cotton, sorted	1752	GJ 130	B3030	150109 / 191208	only	no	7.6	
63101090	Rags of other textile materials, sorted	1752	GJ 130	B3030	150109 / 191208	only	no	7.6	
63109000	Rags, unsorted	1752	GJ 130	B3030	150109 / 191208	only	no	7.6	
70010010	Glass wastes	2615	GE 010	B2020	101112 / 150107 / 160120 / 170202 / 191205 / 200102	only	no	7.1	
71051000	Dust and powder of diamonds, incl. synthetic diamonds	3622	--	--	--	not waste	no	12	
71059000	Dust and powder of natural or synthetic precious or semi-precious stones (excl. dust and powder of diamonds)	3622	--	--	120121? 120299?	only	no	12	
71121000	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals	2741	GA 010	B1010	--	only	no	6	
71122000	Waste and scrap of platinum, including metal clad with platinum but excluding sweepings containing other precious metals	2741	GA 020	B1010	--	only	no	6	
71123000	Ash containing precious metal or precious-metal compounds	2741	--	B1140 B1150 B1160 B1170	1007	only	no	6	
71129000	Other waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal or precious-metal compounds, of a kind used principally for the recovery of precious metal	2741	GA 030	--	--	only	no	6	
71129100	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals	2741	GA 010	B1010	1007	only	no	6	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
71129200	Waste and scrap of platinum, including metal clad with platinum but excluding sweepings containing other precious metals	2741	GA 020	B1010	1007	only	no	6	
71129900	Waste and scrap of other precious metal	2741	GA 030	B1010	1007	only	no	6	
72041000	Waste and scrap of cast iron (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72042110	Waste and scrap of stainless steel containing by weight 8 % or more of nickel (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72042190	Other waste and scrap of stainless steel (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72042900	Other waste and scrap (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72043000	Waste and scrap of tinned iron or steel (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044110	Turnings, shavings, chips, milling waste, sawdust and filings (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044191	Trimmings and stampings in bundles (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044199	Other trimmings and stampings (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044910	Other waste and scrap fragmentized (shredded) (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044930	Other waste and scrap in bundles (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044991	Other waste and scrap neither sorted nor graded (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72044999	Other waste and scrap (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72045010	Waste and scrap (blocks) of alloy steel (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
72045090	Other (ECSC)	2710	GA 430	B1010	150104 / 170405	only	no	6	
74040010	Waste and scrap of refined copper	2744	GA 120	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
74040091	Waste and scrap of copper-zinc base alloys (brass)	2744	GA 120	B1010	120103 / 120104 / 150104 / 170401	only	no	6	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
74040099	Waste and scrap of other copper	2744	GA 120	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
75030010	Waste and scrap of nickel, not alloyed	2745	GA 130	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
75030090	Waste and scrap of nickel alloys	2745	GA 130	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
76020011	Waste of aluminium, turnings, shavings, chips, milling waste, sawdust and filings; waste of coloured, coated or bonded sheets and foil, of a thickness (excluding any backing) not exceeding 0,2 mm	2742	GA 140	B1010	ex 120103 / ex 120104	only	no	6	
76020019	Ohter aluminium waste (including factory rejects)	2742	GA 140	B1010		only	no	6	
76020090	Aluminium scrap	2742	GA 140	B1010	170402 / ex 200140	only	no	6	
78020000	Lead waste and scrap	2743	GA 150	B1020	120103 / 120104 / 150104 / 170401	only	no	6	
79020000	Zinc waste and scrap	2743	GA 160	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
79031000	Zinc dust	2743				only	partly	6	
79039000	Zinc powders and flakes (excl. grains of zinc, and spangles of heading 8308, and zinc dust)	2743				only	partly	6	
80020000	Tin waste and scrap	2743	GA 170	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81019700	Tungsten waste and scrap	2745	GA 180	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81029700	Molybdenum waste and scrap	2745	GA 190	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81033000	Tantalum waste and scrap	2745	GA 200	B1010	120103 / 120104 / 150104 / 170401	only	no	6	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
81042000	Magnesium waste and scrap	2745	GA 210	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81053000	Cobalt waste and scrap	2745	GA 220	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81060010	Unwrought bismuth, waste and scrap, powders	2745	GA 230	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81073000	Cadmium waste and scrap	2745	GA 240	B1020	120103 / 120104 / 150104 / 170401	only	no	6	
81083000	Titanium waste and scrap	2745	GA 250	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81093000	Zirconium waste and scrap	2745	GA 260	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81102000	Antimony waste and scrap	2745	GA 270	B1020	120103 / 120104 / 150104 / 170401	only	no	6	
81110019	Manganese waste and scrap	2745	GA 280	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81121300	Beryllium waste and scrap	2745	GA 290	A1010 B1020	120103 / 120104 / 150104 / 170401	only	partly	6	
81122200	Chromium waste and scrap	2745	GA 300	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81123010	Unwrought germanium, powders, waste and scrap	2745	GA 310	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81123040	Germanium waste and scrap	2745	GA 310	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81124019	Vanadium waste and scrap	2745	GA 320	B1010	120103 / 120104 / 150104 / 170401	only	no	6	
81125200	Thallium waste and scrap	2745	AA 080	A1010	120103 / 120104 / 150104 / 170401	only	yes	6	

CN code	Description of CN code	NACE code generation	OECD-Code	Basel-Code (and remaining OECD-Codes)	EWC code	CN code only/partly covers waste	Overlap with notifica-tions	EWC-STAT code	Remark
81129210	Unwrought hafnium "celtium"; hafnium powders; hafnium waste and scrap (excl. ash and residues containing hafnium)	2745				partly	no	6	
81129239	Niobium (columbium) and Rhenium waste and scrap	2745	GA 350 GA 360	B1010	1008 without (*) 120103 / 120104 / 150104 / 170401	only	no	6	
81129250	Gallium and Indium waste and scrap	2745	GA 340 GA 370	B1010	1009 without (*) 120103 / 120104 / 150104 / 170401	only	no	6	
81130040	Cermets waste and scrap	2745	GF 020	B2030	170103	only	no	6	
85481010	Spent primary cells, spent primary batteries	3140	AA 180	A1170 B1090	1606 without 160601	only	partly	8	Complementary to 85481099
85481021	Spent lead-acid accumulators	3140	AA 170	A1160	160601	only	yes	8	
85481029	Other spent accumulators	3140	AA 180	A1170 B1090	160602	only	yes	8	
85481091	Waste and scrap of primary cells, primary batteries and electric accumulators containing lead	3140	AA 170	A1160	160601	only	yes	8	
85481099	Other waste and scrap of primary cells, primary batteries and electric accumulators	3140	AA 180	A1170 B1090	1606 without 160601	only	yes	8	Complementary to 85481010
85489010	Waste and scrap of Memories in multicombinational forms such as stack D-RAMs and modules	3162	GC 010 GC 020	A1180 B1110	160215* / 160216	only	yes		
85489090	Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, not specified or included elsewhere in this chapter	3162	GC 010 GC 020	A1180 B1110	160215* / 160216	only	yes		
89080000	Ships for breaking up	3511	GC 030	--	--	only	no	8	

Annex 5: Times series from the statistics on foreign trade

Overview of total import and export for Germany of selected waste streams from the CN. All amounts in 1 000 tons.

description	1991		1995		1998		1999		2000		2001		2002	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
Waste from the agro food industry	202	1 036	203	654	197	635	183	565	137	597	99	397	87	306
Slag and ashes	4 067	1 330	2 173	1 134	2 657	982	2 251	991	2 539	1 039	3 392	984	2 453	1 351
Plastic wastes	84	157	284	50	293	66	310	56	353	80	331	85	363	103
Rubber wastes	86	68	64	85	89	73	82	69	79	70	91	86	102	94
Wood wastes	809	545	691	362	756	454	742	516	772	666	716	606	650	521
Paper and cardboard wastes	1 822	743	2 986	1 054	3 003	1 007	3 450	938	3 660	1 161	3 562	1 348	3 176	1 577
Textile wastes	327	127	331	120	366	138	342	141	354	149	366	163	381	180
Glass	80	73	77	82	185	127	286	132	283	144	359	123	373	137
Iron and steel scrap	7 373	862	7 965	1 197	7 011	2 676	6 995	2 909	6 869	3 519	6 599	3 560	6 881	3 805
Non ferrous metal scrap	848	588	694	730	913	1 137	873	1 030	937	1 007	914	891	894	1 012
Ships for breaking down	224	189	26	0	69	58	9	8	1	0	14	0	0	0
Miscelanious	9	359	29	149	41	77	38	47	41	56	49	57	48	50
Total	15 930	6 078	15 522	5 616	15 580	7 427	15 561	7 403	16 024	8 489	16 491	8 299	15 408	9 135

Annex 6: Relation reporting threshold and amount of waste in the CN

This table give an indication about the amount of waste a company has to export or import during one calendar year to exceed the threshold. This could be used in further investigations regarding the potential impact of the thresholds on the coverage of the total trade for different waste streams. The information was based upon the information on values and volume of the waste streams in the statistical dataset of the foreign trade for Germany in 2002. The data for both imported and exported materials per code in the Combined Nomenclature were given because typically the value of imported and exported material has different values.

Amount of waste representing the reporting threshold of €200.000 for trade in materials in the Combined Nomenclature that consist of or contain waste. Data from the German trade statistics for the year 2002

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
05010000	Human hair, unworked, whether or not washed or scoured; waste of human hair	15 510	13	80 810	2
05021000	Pigs', hogs' or boars' bristles and hair and waste thereof	8 530	23	6 420	31
05029000	Other	98 110	2	20 890	10
05030000	Horsehair and horsehair waste, whether or not put up as a layer with or without supporting material	6020	33	5 020	40
05059000	Other	320	630	240	835
05069000	Other bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised; powder and waste of these products	70	2 932	200	1 020
05071000	Ivory, ivory powder and waste	90 000	2	107 780	2
05119110	Fish waste	230	853	70	2 890
15220099	Other degras residues resulting from the treatment of fatty substances or animal or vegetable waxes	170	1 171	230	887
18020000	Cocoa shells, husks, skins and other cocoa waste	40	5 078	330	613
23070011	Wine lees having a total alcoholic strength by mass not exceeding 7,9 % mass and a dry matter content not less than 25 % by weight	40	5 175		
23070019	Other wine lees	40	5 332		
23080011	Grape marc, of a kind used in animal feeding, whether or not in the form of pellets, having a total alcoholic strength by mass of <= 4,3% mass and a dry matter content of <= 40% by weight			50	3814
23080019	Grape marc, of a kind used in animal feeding, whether or not in the form of pellets (excl. grape marc having a total alcoholic strength by mass of <= 4,3% mass and a dry matter content of <= 40% by weight)			280	720
23080040	Acorns and horse-chestnuts; pomace or marc of fruit, other than grapes	680	293	250	811
23080090	Other	160	1 223	100	1 944
24013000	Tobacco refuse	650	309	680	294
25253000	Mica waste			180	1130
26180000	Granulated slag (slag sand) from the manufacture of iron or steel	10	14 658	10	15 679
26190091	Waste suitable for the recovery of iron or manganese	5	41 017	20	13 109
26190099	Other slag and waste from the manufacture of iron or steel	10	17 998	40	5586
26201100	Hard zinc spelter	560	360	600	332

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
26201900	Ash and residues containing mainly zinc (excl. hard zinc spelter)	422	474		
26202900	Ash and residues containing mainly lead (excl. leaded gasoline sludges and leaded anti-knock compound sludges)	292	686		
26203000	Ash and residues containing mainly copper	290	690		
26204000	Ash and residues containing mainly aluminium	502	399		
26209910	Ash and residues containing mainly nickel	1 141	175		
26209920	Ashes and residues containing mainly niobium and tantalum			4 170	48
26209930	Ashes and residues containing mainly tungsten	450	444	320	628
26209940	Ash and residues containing mainly tin	480	416		
26209950	Ashes and slag containing mainly molybdenum			4 720	42
26209960	Ashes and slag containing mainly titanium			390	519
26209980	Ash and residues containing mainly zirconium	2 000	98		
26209990	Ash and residues containing metals or metal compounds (excl. those from the manufacture of iron or steel and those containing primarily zinc, lead, copper, aluminium, nickel, niobium, tantalum, tungsten, tin, molybdenum, titanium, cobalt or zirconium, those containing arsenic, mercury, thallium or their mixtures of a kind used for the extraction of arsenic or those metals or for the manufacture of their chemical compounds and those containing antimony, beryllium, cadmium, chromium or their mixtures)	1 000	147		
26211000	Ash and residues from the incineration of municipal waste		14 872		
26219000	Slag and ash, incl. seaweed ash "kelp" (excl. slag, incl. granulated, from the manufacture of iron or steel, ashes and residues containing arsenic, metals or metal compounds and those from the incineration of municipal waste)	40	4 583	20	8543
28445000	Spent "irradiated" fuel elements "cartridges" of nuclear reactors [Euratom]				
30068000	Waste pharmaceuticals	2 860	70		
31032000	Basic slag	10	27 497	140	1473
38251000	Municipal waste	163	1 226	859	233
38252000	Sewage sludge	5 143	39	27	7 354
38253000	Clinical waste	4 545	44		
38254900	Waste organic solvents, non-halogenated	284	703	143	1 402
38255000	Wastes of metal pickling liquors, of hydraulic fluids, brake fluids and anti-freeze fluids	45	4 396	1	204 200
38256100	Wastes from chemical or allied industries, mainly containing organic constituents (excl. anti-freeze fluids)	235	850	194	1 030
38256900	Wastes from chemical or allied industries (excl. wastes of metal pickling liquors, of hydraulic fluids, brake fluids and anti-freeze fluids and those mainly containing organic constituents)	20	9 915	39	5 122

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
38259000	Residual products of the chemical or allied industries, n.e.s. (excl. waste)	259	773	99	2 024
39151000	Waste, parings and scrap of polymers of ethylene	180	1 082	220	898
39152000	Waste, parings and scrap of polymers of styrene	250	800	390	510
39153000	Waste, parings and scrap of polymers of vinyl chloride	220	906	270	747
39159011	Waste, parings and scrap of polymers of propylene	230	879	240	819
39159013	Waste, parings and scrap of acrylic polymers	400	500	1 030	194
39159019	Waste of addition polymerisation products	360	550	130	1 520
39159091	Waste, parings and scrap of epoxide resins	130	1 555	260	777
39159093	Waste, parings and scrap of cellulose and its chemical derivatives	1 650	121	610	328
39159099	Waste, parings and scrap of other plastics	2 910	69	330	606
40040000	Waste, parings and scrap of rubber (other than hard rubber) and powders and granules obtained therefrom	240	844	170	1 169
40122010	Used pneumatic tyres for use on civil aircraft	920	218	3 910	51
40122090	Used pneumatic tyres	490	406	590	339
40170010	Hard rubber (for example, ebonite) in all forms, including waste and scrap; articles of hard rubber	10 800	19	480	418
41152000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour	390	513	330	609
44013010	Sawdust	60	3 436	30	6 179
44013090	Other wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms	40	4 910	50	4 250
47071000	Unbleached kraft paper or paperboard or corrugated paper or paperboard	80	2 365	90	2 200
47072000	Other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass	110	1 828	220	927
47073010	Old and unsold newspapers and magazines, telephone directories, brochures and printed advertising material	100	2 025	120	1 672
47073090	Other paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)	80	2 498	140	1 462
47079010	Other, including unsorted waste and scrap of paper	70	2 852	100	2 044
47079090	Other, including sorted waste and scrap of paper	80	2 517	140	1 417
50031000	Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) not carded or combed	5 140	39	3 690	54
50039000	Other silk waste	18 700	11	16 740	12
51032010	Yarn waste of wool or of fine animal hair	970	206	410	484

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
51032091	Waste of wool or fine animal hair not carbonized	1 530	131	1 670	120
51032099	Waste of wool or fine animal hair carbonized			4 050	49
52021000	Cotton waste (yarn waste)	450	444	290	681
52029100	Cotton waste (garnetted stock)	370	541	380	532
52029900	Other cotton waste	680	292	630	319
55051010	Waste (including noils, yarn waste and garnetted stock) of man-made fibres of nylon or other polyamides	720	278	870	230
55051030	Waste of polyesters	390	513	550	363
55051050	Waste of acrylic or modacrylic	520	381	350	569
55051070	Waste of polypropylene	330	597	610	329
55051090	Waste of other synthetic fibres	600	334	70	2 704
55052000	Waste off artificial fibres	840	237	930	216
63090000	Worn clothing and other worn articles	670	297	850	234
63101010	Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of wool or fine or coarse animal hair, sorted	460	430	530	381
63101030	Rags of flax or cotton, sorted	440	459	350	568
63101090	Rags of other textile materials, sorted	280	720	420	471
63109000	Rags, unsorted	380	531	230	872
70010010	Glass wastes	40	5 629	50	3 797
71123000	Ash containing precious metal or precious-metal compounds	112 590	2	59 210	3
71129100	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals	131 550	2	76 300	3
71129200	Waste and scrap of platinum, including metal clad with platinum but excluding sweepings containing other precious metals	149 450	1	119 820	2
71129900	Waste and scrap of other precious metal	3880	52	24 750	8
72041000	Waste and scrap of cast iron (ECSC)	90	2124	80	2590
72042110	Waste and scrap of stainless steel containing by weight 8 % or more of nickel (ECSC)	730	273	770	260
72042190	Other waste and scrap of stainless steel (ECSC)	400	496	600	336
72042900	Other waste and scrap (ECSC)	530	379	270	740
72043000	Waste and scrap of tinned iron or steel (ECSC)	70	2674	70	3047
72044110	Turnings, shavings, chips, milling waste, sawdust and filings (ECSC)	80	2530	80	2476

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
72044191	Trimmings and stampings in bundles (ECSC)	110	1811	120	1682
72044199	Other trimmings and stampings (ECSC)	110	1 887	110	1 830
72044910	Other waste and scrap fragmentized (shredded) (ECSC)	110	1 841	110	1 887
72044930	Other waste and scrap in bundles (ECSC)	90	2 203	90	2 253
72044991	Other waste and scrap neither sorted nor graded (ECSC)	90	2 200	100	2 034
72044999	Other waste and scrap (ECSC)	100	1 978	100	2 002
72045010	Waste and scrap (blocks) of alloy steel (ECSC)	930	216	750	266
72045090	Other (ECSC)	360	558	160	1 286
74040010	Waste and scrap of refined copper	1 420	141	1 480	135
74040091	Waste and scrap of copper-zinc base alloys (brass)	1 140	176	1 070	186
74040099	Waste and scrap of other copper	800	249	1 260	159
75030010	Waste and scrap of nickel, not alloyed	6 860	29	6 460	31
75030090	Waste and scrap of nickel alloys	2 490	80	3 850	52
76020011	Waste of aluminium, turnings, shavings, chips, milling waste, sawdust and filings; waste of coloured, coated or bonded sheets and foil, of a thickness (excluding any backing) not exceeding 0,2 mm	999	200	1 020	197
76020019	Other aluminium waste (including factory rejects)	1 320	152	1 330	151
76020090	Aluminium scrap	1 130	176	1 040	192
78020000	Lead waste and scrap	410	491	370	547
79020000	Zinc waste and scrap	740	271	620	320
80020000	Tin waste and scrap	2 580	78	1 830	109
81019700	Tungsten waste and scrap	4 890	41	3 720	54
81029700	Molybdenum waste and scrap			8 470	24
81033000	Tantalum waste and scrap	135 620	1	119 490	2
81042000	Magnesium waste and scrap	1230	162	1 290	155
81053000	Cobalt waste and scrap	6780	30	7 130	28
81060010	Unwrought bismuth, waste and scrap, powders	5000	37		
81073000	Cadmium waste and scrap			15 000	13
81083000	Titanium waste and scrap	3270	61	2 870	70
81093000	Zirconium waste and scrap	7380	27	7 420	27

CN code	Description of CN code	Value in Euro per ton Export	Amount in ton for a value of 200.000 Euro Export	Value in Euro per ton Import	Amount in ton for a value of 200.000 Euro Import
81110019	Manganese waste and scrap	110	1 748	790	254
81121300	Beryllium waste and scrap	183 750	1	134 780	1
81122200	Chromium waste and scrap	630	319	1 900	105
81123040	Germanium waste and scrap				
81124019	Vanadium waste and scrap			10 000	20
81129239	Niobium (columbium) and Rhenium waste and scrap	24 710	8	16 900	12
81129250	Gallium and Indium waste and scrap	16 670	12	450 000	0
81130040	Cermets waste and scrap	6 090	33	2 710	74
85481021	Spent lead-acid accumulators	77	2 614	53	3807
85481091	Waste and scrap of primary cells, primary batteries and electric accumulators containing lead	104	1 920	99	2030
85481099	Other waste and scrap of primary cells, primary batteries and electric accumulators	179	1117	935	214
85489010	Waste and scrap of Memories in multicombinational forms such as stack D-RAMs and modules	970 000	0		
85489090	Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, not specified or included elsewhere in this chapter	141 000	1	40517	5
89080000	Ships for breaking up	1 250	160		

Annex 7 Comparison import data German Waste statistics

The following tables provide some details about the data waste imported by German waste management companies as included in the waste statistics from Germany.
The annex consists of three tables. The first compares the data reported by companies involved with disposal activities with the data on imported amounts for disposal in the report to the Secretariat of the Basel Convention.
The second table compares the data on the specific survey on waste oils in the German waste statistics with the data reported to the Secretariat of the Basel Convention.
The third table compares the data from the survey on the use of recyclable materials by certain production industries with the data in the statistics on foreign trade.

Treatment operation • Type of waste	D-code of the operation	Amounts in 1 000 tons	
		German Waste Statistics	Waste Shipment Regulation
Landfill	D1, D5, D12	63	137
Incineration	D10	260	359
• Mixed household waste		164	146
• Sewage sludge		14	118
Chem.-phys. Treatment	D9	4.4	11.2
Total	D1, D9, D10, D12	327	508

Amounts of waste imported for disposal in 2001 as reported in the German waste Statistics (Source: Destatis, 2003) and in the report to the Secretariat of the Basel Convention (Source: UBA, 2002).

The reported amounts for landfilling and incineration in the German waste statistics are lower than those reported under the waste shipment Regulation because they do not include imports by industrial installations that also operate a landfill or that co-incinerate waste. These installations will be included in the German survey from 2004 onwards, which should reduce the difference in reporting. The data on incineration of mixed household waste are quite close to each other, because this waste type is typically not co-incinerated.

Waste type	Amounts in 1 000 tons	
	German Waste Statistics	Waste Shipment Regulation
Waste oil	63	68

Amounts of waste oil imported in 2002 as reported in the German waste Statistics (Source: Destatis, 2003) and in the report to the Secretariat of the Basel Convention (Source: UBA, 2002).

The amounts reported in the two systems are nearly identical. The data from both systems are assumed to cover essentially the same activities.

Waste type	Amounts in 1 000 tons	
	German Waste statistics	Foreign trade statistics
Glass waste	65	144
Paper waste	777	1 161
Plastics waste	81	80

Amounts of waste imported for recovery (2000) as reported in the German waste statistics and the statistics on foreign trade (Source, Destatis, 2003).
The waste statistics do not cover imports by companies without a waste licence (in particular traders that do not process waste themselves). The foreign trade statistics do not cover trade under the reporting threshold. Only for plastic waste the amounts in both statistics are similar. For glass waste and paper waste the waste statistics give much lower estimates than the trade statistics. This implies that the trade statistics give a better estimate of the real trade, although also the trade statistics only provide for the amount registered and do not represent the total volume of the trade.