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► **B**

COMMISSION DECISION

of 22 March 2005

establishing the formats relating to the database system pursuant to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste

(notified under document number C(2005) 854)

(Text with EEA relevance)

(2005/270/EC)

(OJ L 86, 5.4.2005, p. 6)

Amended by:

		Official Journal		
		No	page	date
► <u>M1</u>	Commission Implementing Decision (EU) 2018/896 of 19 June 2018	L 160	6	25.6.2018
► <u>M2</u>	Commission Implementing Decision (EU) 2019/665 of 17 April 2019	L 112	26	26.4.2019

▼ B**COMMISSION DECISION****of 22 March 2005****establishing the formats relating to the database system pursuant to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste***(notified under document number C(2005) 854)***(Text with EEA relevance)**

(2005/270/EC)

▼ M2*Article 1*

This Decision establishes the formats for reporting data pursuant to Article 12 of Directive 94/62/EC, as well as the rules for the calculation, verification and reporting of data pursuant to that Directive, as regards the following:

- (a) attaining an adjusted level of the recycling targets referred to in points (f) to (i) of Article 6(1) of Directive 94/62/EC by taking account of reusable packaging pursuant to Article 5(2) of that Directive;
- (b) taking account of repair for reuse of wooden packaging pursuant to Article 5(3) of Directive 94/62/EC;
- (c) compliance with the targets set in in points (f) to (i) of Article 6(1) of Directive 94/62/EC;
- (d) quality check and the measures taken pursuant to Article 6a(3) and (8) of Directive 94/62/EC.

▼ B*Article 2***▼ M2**

1. For the purposes of this Decision, the following definitions shall apply in addition to the relevant definitions set out in Article 3 of Directive 94/62/EC:

- (a) ‘targeted materials’ means packaging waste materials that are reprocessed in a given recycling operation into products, materials or substances that are not waste;
- (b) ‘non-targeted materials’ means, for the purposes of the calculation of the recycling targets set in points (f) to (i) of Article 6(1) of Directive 94/62/EC, waste materials that are not reprocessed in a given recycling operation into products, materials or substances that are not waste;
- (c) ‘preliminary treatment’ means any treatment operation that packaging waste materials undergo before submission to the recycling operation whereby those materials are reprocessed into products, materials or substances that are not waste. This includes checking, sorting and other preparatory operations to remove non-targeted materials and to ensure high-quality recycling;

▼ M2

- (d) ‘calculation point’ means the point where packaging waste materials enter the recycling operation whereby waste is reprocessed into products, materials or substances that are not waste, or the point where waste materials cease to be waste as a result of a preparatory operation before being reprocessed;
- (e) ‘measurement point’ means the point where the mass of waste materials is measured with a view to determining the amount of waste at the calculation point;
- (f) ‘rotation’ means a trip performed by reusable packaging from the moment it is placed on the market together with the goods it is intended to contain, protect, handle, deliver or present, to the moment it is sent back for reuse in a system to reuse packaging with a view to its repeated placing on the market together with the goods;
- (g) ‘a system to reuse packaging’ means organisational, technical or financial arrangements which ensure that reusable packaging performs multiple rotations.

▼ B2. ► **M2** ————— ◀

For the purposes of this Decision, packaging waste generated in a Member State may be deemed to be equal to the amount of packaging placed on the market in the same year within that Member State.

Article 3

1. The data for total packaging shall cover all packaging as defined in Article 2(1) and 3(1) of Directive 94/62/EC.

In particular for materials occurring in smaller quantities and those not mentioned in this Decision, estimates may be used. These estimates shall be based on the best information available and shall be described in accordance with Article 7.

2. Reusable packaging shall be considered to be placed on the market when it is made available for the first time, together with the goods it is intended to contain, protect, handle, deliver or present.

Reusable packaging shall not be considered packaging waste when it is sent back for reuse. Reusable packaging shall not be considered to be placed on the market as packaging when it has been reused with a good and is made available again.

Reusable packaging discarded at the end of its useful life shall be considered packaging waste.

▼ B

For the purposes of this Decision, packaging waste generated in a particular Member State from reusable packaging may be deemed to be equal to the amount of reusable packaging placed on the market within that Member State in the same year.

▼ M2

3. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, packaging made of different materials which cannot be separated by hand shall be reported under the predominant material by weight.

▼ B

Additionally, separate data on recovery and recycling of composite materials may be provided on a voluntary basis.

▼ M2

4. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, the weight of recovered or recycled packaging waste shall be the input of packaging waste to an effective recovery or recycling process. If the output of the sorting plant is sent to effective recycling or recovery processes without significant losses, it is acceptable to consider this output to be the weight of the recovered or recycled packaging waste.

▼ B*Article 4***▼ M2**

1. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, packaging waste exported out of the Union shall be counted as recovered or recycled only if there is sound evidence that the recovery and/or recycling took place under conditions that are broadly equivalent to those prescribed by the relevant Union legislation.

▼ B

2. Transboundary movements of packaging waste shall comply with Council Regulation (EC) No 259/93 ⁽¹⁾ Council Regulation (EC) No 1420/1999 ⁽²⁾, and Commission Regulation (EC) No 1547/1999 ⁽³⁾.

▼ M2

3. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, packaging waste generated in another Member State or outside the Union which is sent for recovery or recycling to a Member State shall not be counted as recovered or recycled in the Member State to which this packaging waste was sent.

⁽¹⁾ OJ L 30, 6.2.1993, p. 1.

⁽²⁾ OJ L 166, 1.7.1999, p. 6.

⁽³⁾ OJ L 185, 17.7.1999, p. 1.

▼ B*Article 5***▼ M2**

1. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, the weight of recovered or recycled packaging waste shall be measured using a natural humidity rate of the packaging waste comparable to the humidity rate of equivalent packaging put on the market.

▼ B

Corrections shall be made to measured data relating to the weight of recovered or recycled packaging waste, if the humidity rate of that packaging waste regularly and significantly differs from that of packaging placed on the market and if this factor risks leading to substantial over- or underestimates of packaging recovery or recycling rates.

Those corrections shall be limited to exceptional cases, caused by specific climatic or other conditions.

▼ M2

Significant corrections shall be reported in the descriptions regarding the data compilation in the data quality check report.

2. For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, the weight of recovered packaging shall, as far as is practical, exclude non-packaging materials collected together with the packaging waste.

▼ B

Corrections shall be made to the data relating to the weight of recovered or recycled packaging waste, if non-packaging materials in the waste sent to an effective recovery or recycling process risk leading to substantial over- or underestimates of packaging recovery or recycling rates.

No corrections shall be made in the case of small amounts of non-packaging materials, or for such contamination as can regularly be found in packaging waste.

▼ M2

Significant corrections shall be reported in the descriptions regarding the data compilation in the data quality check report.

Article 6

For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, the provisions on recovery in Articles 3, 4 and 5 of this Decision shall apply *mutatis mutandis* to packaging waste incinerated at waste incineration plants with energy recovery.

▼ M2*Article 6a*

1. For the purposes of attaining an adjusted level of the recycling targets set in points (f) to (i) of Article 6(1) of Directive 94/62/EC by taking into account the average share, in the preceding three years, of reusable sales packaging placed on the market for the first time and reused as part of a system to reuse packaging, as provided for in Article 5(2) of Directive 94/62/EC, the amount of reusable sales packaging which is discarded after its first rotation shall be deducted from the total amount of reusable sales packaging placed on the market for the first time in a given year.

2. The percentage points that may be subtracted from the recycling targets to determine the adjusted level referred to in Article 5(2) of Directive 94/62/EC shall be calculated as a simple average of the percentage points that represent the share of reusable sales packaging in each of the preceding three years. That share shall be calculated by dividing the amount of reusable sales packaging determined in accordance with this Article that is composed of the packaging material to which the recycling target applies, by the amount of all sales packaging composed of that packaging material and placed on the market for the first time in a given year.

Article 6b

1. Where a Member State takes into account the amounts of wooden packaging that is repaired for reuse in the calculation of the targets laid down in point (f), point (g)(ii), point (h) and point (i)(ii) of Article 6(1) of Directive 94/62/EC, the amount of wooden packaging that is repaired for reuse shall be added to both the generated packaging waste and the recycled packaging waste.

2. The amount of wooden packaging that is repaired for reuse shall be established on the basis of the mass of the repaired wooden packaging units that are subsequently reused and shall exclude wooden packaging or components of wooden packaging that are directed to waste treatment operations.

Article 6c

1. For the purposes of calculating and verifying compliance with the recycling targets set in points (f) to (i) of Article 6(1) of Directive 94/62/EC, the following shall apply:

- (a) The amount of recycled packaging waste shall be the amount of waste at the calculation point. The amount of packaging waste entering the recycling operation shall include targeted materials. It may include non-targeted materials only to the extent that their presence is permissible for the specific recycling operation.

▼ M2

The calculation points applicable to certain packaging waste materials and certain recycling operations are specified in Annex II.

- (b) Where the measurement point relates to the output of a facility that sends packaging waste for recycling without further preliminary treatment, or to the input of a facility where packaging waste enters the recycling operation without further preliminary treatment, the amount of sorted packaging waste that is rejected by the recycling facility shall not be included in the amount of recycled packaging waste.
- (c) Where a facility carries out preliminary treatment prior to the calculation point in that facility, the waste removed during the preliminary treatment shall not be included in the amount of recycled packaging waste reported by that facility.
- (d) Where biodegradable packaging that is subject to aerobic or anaerobic treatment is included in the recycled amounts for the respective packaging material, the amount of biodegradable packaging in biodegradable waste shall be determined by performing regular composition analyses of the biodegradable waste entering those operations. Biodegradable packaging waste that is removed before, during or after the recycling operation shall not be included in the recycled amounts.
- (e) Where the humidity rate of packaging waste at the measurement point differs from that of packaging placed on the market, the amount of packaging at the measurement point shall be corrected in order to reflect the natural humidity rate of the packaging waste comparable to the humidity of equivalent packaging placed on the market.
- (f) The amount of recycled packaging waste shall exclude non-packaging materials collected together with the packaging waste, such as waste of the same material that does not originate from packaging, and residues from products that the packaging used to contain.
- (g) Where packaging waste generated in a given Member State has been mixed with other waste or waste from another country before the measurement point or the calculation point, the proportion of packaging waste originating from a given Member State shall be identified using appropriate methods, such as electronic registries and sampling surveys. Where such waste undergoes further preliminary treatment, the amount of non-targeted materials removed by that treatment shall be deducted taking into account the proportion and, where appropriate, the quality of waste materials coming from packaging waste originating from a given Member State.

▼ M2

- (h) Where packaging waste materials enter recovery operations whereby those materials are used principally as a fuel or other means to generate energy, the output of such operations that is subject to material recovery, such as the mineral fraction of incineration bottom ash or clinker resulting from co-incineration, shall not be included in the amount of packaging waste recycled, with the exception of metals separated and recycled after incineration of packaging waste. Metals incorporated in the mineral output of the co-incineration process of packaging waste shall not be reported as recycled.
- (i) Where packaging waste materials enter recovery operations whereby those materials are not principally used either as a fuel or other means to generate energy, or for material recovery, but result in output that includes recycled materials, fuels or backfilling materials in significant proportions, the amount of recycled waste shall be determined by a mass balance approach which results in taking account only of waste materials that are subject to recycling.

2. For the purposes of calculating and verifying attainment of the recycling targets set in points (f) to (i) of Article 6(1) of Directive 94/62/EC, composite packaging and other packaging composed of more than one material shall be calculated and reported per material contained in the packaging. Member States may derogate from this requirement where a given material constitutes an insignificant part of the packaging unit, and in no case more than 5 % of the total mass of the packaging unit.

Article 6d

1. For the purposes of calculating and verifying attainment of the targets set in points (f) to (i) of Article 6(1), of Directive 94/62/EC, the amount of recycled metals separated from incineration bottom ash shall be the mass of metals in the metal concentrate that is separated from raw incineration bottom ash originating from packaging waste, and shall not include other materials contained in the metal concentrate such as mineral adhesions or metals that do not originate from packaging waste.

2. The Member States shall apply the methodology laid out in Annex III for calculating the mass of recycled metals separated from incineration bottom ash.

Article 6e

For the purposes of calculating and verifying attainment of the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, Member States may apply the calculation rules laid down in Articles 6a to 6d.

▼ M2*Article 6f*

1. The Member States shall take appropriate measures to ensure the reliability and accuracy of data reported under this Decision. In particular, the amount of packaging waste generated shall be subject to verification and cross-checking, including by using data on the amount of packaging placed on the market, relevant data on waste and composition analyses of mixed municipal waste. Member States shall inform the Commission of such verification carried out and, where appropriate, of any significant inconsistencies identified and corrective measures planned or taken.

2. Member States shall obtain data directly from establishments or undertakings managing waste, as appropriate.

3. Member States shall consider the use of electronic registries.

4. Where data collection is based on surveys, including those underpinning sampling methodologies, those surveys shall be carried out to a minimum standard which shall include the following minimum requirements:

(a) the surveys are carried out at regular, specified intervals, to adequately reflect the variation in the data to be surveyed;

(b) the surveys are based on a representative sample of the population to which their results are applied.

5. Estimates may be used for packaging materials occurring in small quantities and for those not mentioned in this Decision. Those estimates shall be based on the best information available and shall be described in the quality check reports accompanying the data on packaging waste generation and recycling.

▼ M1*Article 9***▼ M2**

1. The Member States shall report the data on the generation and treatment of packaging waste and on reusable packaging using the formats set out in Tables 1, 2 and 3 of Annex I.

2. The Member States shall provide the data on the consumption of lightweight plastic carrier bags using the format set out in Table 4 or Table 5 of Annex I, as appropriate, for reporting by numbers and the format set out in Table 6 or Table 7 of Annex I, as appropriate, for reporting by weight.

▼ M2

3. The Member States shall complete the reporting formats set out in Annex I on an annual basis and shall submit them to the Commission within 18 months from the end of the reference year in electronic form, by means of an interchange standard set up by the Commission. The reporting shall cover a full calendar year.

4. The Member States shall submit a quality check report using the format set out in Annex IV.

5. Where, for the purposes of verifying compliance with the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC, a Member State does not apply the calculation rules laid down in Articles 6a to 6d, that Member State shall submit the data for verifying compliance with the targets set in points (a) to (e) of Article 6(1) of Directive 94/62/EC separately by using the format laid down in Table 1 of the Annex.

6. Member States that decide to attain an adjusted level of a target in accordance with Article 5(2) of Directive 94/62/EC for a given year shall complete the reporting format set out in Annex I, Table 2 to this Decision for that year for the respective packaging material and shall submit it to the Commission within 18 months from the end of the reference year in electronic form, by means of an interchange standard set up by the Commission.

7. The Commission shall publish the data reported under the Annexes to this Decision, unless, as regards information included in the quality check reports established under Annex IV, a Member State provides a justified request to withhold the publishing of certain data.

▼ B*Article 10*

Decision 97/138/EC is repealed.

Article 11

This Decision is addressed to the Member States.

▼ **B**

ANNEX I

▼ **M2**

TABLE 1

Reporting on the recycling targets set in Article 6 of Directive 94/62/EC

(tonnes)

Packaging waste material	Waste generation	Recycling			Repair of wooden packaging	Energy recovery ⁽¹⁾	Other recovery ⁽²⁾
		Recycling in the Member State	Recycling in other Member States	Recycling outside the EU			
All							
Plastic							
Wood							
Metal (total)							
Ferrous metal							
Ferrous metal from IBA ⁽³⁾							
Aluminium							
Aluminium from IBA ⁽⁴⁾							
Glass							
Paper and cardboard							
Other							

Notes:

1. Dark shaded boxes: reporting is not applicable.
2. Light shaded boxes: reporting is mandatory only to Member States that include those amounts in the recycling rates. Where Member States report on metals from incineration bottom ash (IBA) they shall complete both the boxes on recycling in and outside the Member State.

⁽¹⁾ This includes incineration with energy recovery and the reprocessing of waste to be used as fuel or other means to generate energy.

⁽²⁾ This excludes repair of wooden packaging, recycling and energy recovery and includes backfilling.

⁽³⁾ Ferrous metals recycled after their separation from incineration bottom ash shall be reported separately and shall not be included in the row for reporting ferrous metals.

⁽⁴⁾ Aluminium recycled after separation from incineration bottom ash shall be reported separately and shall not be included in the row for reporting aluminium.

▼ **M2**

1	2	3	4	5	6	7	8	9	10	11
Packaging material	Packaging placed on the market for the first time				Reusable packaging placed on the market for first time		Rotations ⁽³⁾			
	All packaging ⁽¹⁾		Sales packaging ⁽²⁾		All reusable packaging (t)	Reusable sales packaging (t)	All reusable packaging		Reusable sales packaging	
	(t)	(units)	(t)	(units)			(t) ⁽⁴⁾	(number)	(t) ⁽⁴⁾	(number)
Paper and cardboard										
Other										
All										

Note: Light shaded boxes: provision of data is voluntary.

⁽¹⁾ This means all reusable and single-use packaging comprising sales, transport and grouped packaging.

⁽²⁾ This means reusable and single-use sales packaging.

⁽³⁾ This means the number of rotations that reusable packaging completes in a given year.

⁽⁴⁾ This means the number of rotations that reusable packaging completes in a given year multiplied by their mass.

▼ **M1**

TABLE 4

The annual consumption of lightweight plastic carrier bags calculated in accordance with the methodology laid down in Article 2(1)(a) of Commission Implementing Decision (EU) 2018/896 (*)

Number of lightweight plastic carrier bags placed on the market	
Of which bags having a wall thickness of	
< 15 micron	15 < 50 micron

(*) Commission Implementing Decision (EU) 2018/896 of 19 June 2018 laying down the methodology for the calculation of the annual consumption of lightweight plastic carrier bags and amending Decision 2005/270/EC (OJ L 160, 25.6.2018, p. 6).

Notes:

1. White box: Provision of data is mandatory

2. Shaded boxes: Provision of data is voluntary

▼ **M1****TABLE 5**

The annual consumption of lightweight plastic carrier bags calculated in accordance with the methodology laid down in Article 2(1)(b) of Implementing Decision (EU) 2018/896

Number of lightweight plastic carrier bags calculated from mandatory taxes, charges or levies			
Number of lightweight plastic carrier bags calculated from mandatory taxes, charges or levies as declared or reported by economic operators		Number of lightweight plastic carrier bags exempt from mandatory taxes, charges or levies as reported by economic operators	
(a)		(b)	
(a) + (b)			
Of which bags having a wall thickness of			
< 15 micron	15 < 50 micron	< 15 micron	15 < 50 micron

Notes:

1. White box: Provision of data is mandatory
2. Shaded boxes: Provision of data is voluntary
3. Where no exemption is in place, the value for (b) shall be indicated as 0.

TABLE 6

The annual consumption of lightweight plastic carrier bags calculated in accordance with the methodology laid down in Article 3(1)(a) of Implementing Decision (EU) 2018/896

Weight of lightweight plastic carrier bags placed on the market			
Weight of lightweight plastic carrier bags placed on the market		Weighted average weight per lightweight plastic carrier bag as reported by economic operators	
Of which bags having a wall thickness of		Having a wall thickness of	
< 15 micron	15 < 50 micron	< 15 micron	15 < 50 micron

Notes:

1. White box: Provision of data is mandatory
2. Shaded boxes: Provision of data is voluntary

▼ **M1****TABLE 7**

The annual consumption of lightweight plastic carrier bags calculated in accordance with the methodology laid down in Article 3(1)(b) of Implementing Decision (EU) 2018/896

Weight of lightweight plastic carrier bags calculated from mandatory taxes, charges or levies					
Weight of lightweight plastic carrier bags calculated from mandatory taxes, charges or levies as declared or reported by economic operators		Weight of lightweight plastic carrier bags exempt from mandatory taxes, charge or levies as reported by economic operators		Average weight per lightweight plastic carrier bag as reported by economic operators	
a		b			
a + b					
Of which bags having a wall thickness					
< 15 micron	15 < 50 micron	< 15 micron	15 < 50 micron	(a) 15 < 50 micron	(b) 15 < 50 micron

Notes:

1. White box: Provision of data is mandatory
2. Shaded boxes: Provision of data is voluntary
3. Where no exemption is in place, the value for (b) equals 0

▼ M2

ANNEX II

Calculation points referred to in Article 6c(1)(a)

Packaging Material	Calculation Point
Glass	Sorted glass that does not undergo further processing before entering a glass furnace or the production of filtration media, abrasive materials, glass fibre insulation and construction materials.
Metals	Sorted metal that does not undergo further processing before entering a metal smelter or furnace.
Paper / board	Sorted paper that does not undergo further processing before entering a pulping operation
Plastics	Plastic separated by polymers that does not undergo further processing before entering pelletisation, extrusion, or moulding operations; Plastic flakes that do not undergo further processing before their use in a final product.
Wood	Sorted wood that does not undergo further processing before utilisation in the manufacture of particleboard or other products. Sorted wood entering a composting operation.
Textiles	Sorted textile that does not undergo further processing before its utilisation for the production of textile fibres, rags or granulates.
Composite packaging and packaging composed of multiple materials	Plastic, glass, metal, wood, paper and cardboard and other materials resulting from the treatment of composite packaging or of packaging composed of multiple materials that do not undergo further processing before reaching the calculation point established for the specific material.

▼ M2

ANNEX III

Methodology for calculating the recycled metals separated after incineration of packaging waste

1. The following terms shall apply in relation to the formulas set out in this annex:

$m_{total\ IBA\ Fe/Al}$	total mass of ferrous metals or aluminium in incineration bottom ash in a given year;
$m_{IBA\ Fe/nFe\ concentrates}$	mass of ferrous metal concentrate or non-ferrous metal concentrate separated from raw waste incineration bottom ash in a given year;
$C_{IBA\ Fe/Al}$	concentration of ferrous metals or aluminium in the respective metal concentrate;
$m_{IBA\ Fe/Al}$	mass of ferrous metals or aluminium in the ferrous metal concentrate or in the non-ferrous metal concentrate separated from incineration bottom ash in a given year;
$m_{non-metallic}$	mass of non-metallic material contained in specific ferrous metals concentrate or aluminium concentrate;
r_{Al}	share of aluminium in non-ferrous metals contained in non-ferrous concentrate separated from incineration bottom ash;
$m_{PW\ Fe/Al}$	mass of ferrous metals or aluminium from packaging waste entering an incineration operation in a given year;
$m_W\ Fe/Al$	mass of all ferrous metals or aluminium entering an incineration operation in a given year; and
$m_{PW\ IBA\ Fe/Al}$	mass of recycled ferrous metals or aluminium originating from packaging waste in a given year.

2. Following the separation of ferrous /non-ferrous concentrate from raw incineration bottom ash, the ferrous metals/aluminium content of the metal concentrate shall be calculated by applying the following formula:

$$m_{total\ IBA\ Fe/Al} = m_{IBA\ Fe/nFe\ concentrates} \cdot C_{IBA\ Fe/Al}$$

3. Data on the mass of ferrous /non-ferrous metal concentrates shall be obtained from facilities that separate metal concentrates from raw incineration bottom ash.
4. The concentration of ferrous metals and aluminium resulting from the processing of raw incineration bottom ash shall be calculated by using data collected by regular surveys from facilities that treat metal concentrates and from facilities that use metals separated from incineration bottom ash to producing metal products by applying the following formulas:

▼ **M2**

(a) for ferrous metals

$$C_{IBA\ Fe} = \frac{m_{IBA\ Fe}}{m_{IBA\ Fe\ concentrates}} = \frac{m_{IBA\ Fe\ concentrates} - m_{non-metallic}}{m_{IBA\ Fe\ concentrates}}, \text{ and}$$

(b) for aluminium

$$C_{IBA\ Al} = \frac{m_{IBA\ Al}}{m_{IBA\ nFe\ concentrates}} = \frac{(m_{IBA\ nFe\ concentrates} - m_{non-metallic}) \cdot r_{Al}}{m_{IBA\ nFe\ concentrates}}$$

5. The mass of recycled ferrous metals/aluminium originating from packaging waste in all recycled ferrous metals/aluminium separated from incineration bottom ash shall be determined through sampling surveys of the waste that enters the incineration operation. These surveys shall be carried out at least every five years and when there are reasons to expect that the composition of the incinerated waste has significantly changed. The mass of ferrous metals/aluminium originating from packaging waste shall be calculated by applying the following formula:

$$m_{PW\ IBA\ Fe/Al} = \frac{m_{PW\ Fe/Al}}{m_{W\ Fe/Al}} \cdot m_{total\ IBA\ Fe/Al}$$

▼ **M2***ANNEX IV***Format for quality check****I. Objectives of the report**

The objectives of the quality check report are as follows:

1. Evaluate the methodology to report on the annual consumption of lightweight plastic carrier bags;
2. Evaluate the quality of data on reusable packaging;
3. Check the comprehensiveness of Member State application of the definition of packaging waste, in particular as regards data on packaging waste generation;
4. Evaluate the quality of data collection processes, including the scope and validation of administrative data sources and the statistical validity of survey-based approaches;
5. Understand the reasons for significant changes in reported data between reference years and ensure confidence in the accuracy of that data;
6. Ensure the application of the rules and common methodologies to measure metals separated after the incineration of packaging waste; and
7. Verify compliance with specific requirements established in the rules for calculating the recycling targets for packaging waste.

II. General information

1. Member State:
2. Organisation submitting the data and the description:
3. Contact person / contact details:
4. Reference year:
5. Delivery date / version:
6. Link to data publication by the Member State (if any):

III. Annual consumption of lightweight plastic carrier bags

1. Description of the parties involved in the data collection

Name of institution	Description of key responsibilities

Add rows as appropriate.

2. Description of methods used

▼ M2

3. Accuracy of the data

3.1. Description of main issues affecting the accuracy of data on annual consumption of lightweight plastic carrier bags, including errors related to sampling, coverage, measurement, processing and non-response

3.2. Explanation of the scope and validity of surveys to collect data on the annual consumption of lightweight plastic carrier bags

3.3. Statistical surveys used regarding the annual consumption of lightweight plastic carrier bags

Scope of the survey	Year	Statistical units	Percentage of population surveyed	Data (t)	Confidence level	Error margin	Adjustments from the survey year to the current year	Other details

Add rows for each survey used.

3.4. Differences from previous year's data

Significant methodological changes in the calculation method for the current reference year, if any (please include in particular retrospective revisions, their nature and whether a break-flag is required for a certain year).

IV. Reusable packaging

1. Parties involved in the data collection

Name of institution	Description of key responsibilities

Add rows as appropriate.

2. Description of the application of the definition of reusable packaging in the national data collection system, including ensuring that reusable packaging placed on the market for the first time is reused as part of a system to reuse packaging and that all rotations of reusable packaging are captured

▼ **M2**

3. Methods to collect and aggregate the data for the different categories, type of packaging and systems to reuse packaging

Packaging material	Category of packaging covered (sales, grouped or transport packaging)	Type of packaging (for example bottles, crates, containers)	Description of the reuse system (open-loop or close-loop system)	Detailed description of the methods to collect and aggregate the data, including sources of information, coverage, and any estimates used if possible separately for each combination of packaging material, category, type of packaging and reuse system
Plastic				
Wood				
Ferrous metals				
Aluminium				
Glass				
Paper and cardboard				
Other				

Add rows after each material as appropriate.

4. Data verification

Packaging material	Detailed description of methods for verification of data on reusable packaging if possible separately for each combination of packaging material, category, type of packaging and reuse system
Plastic	
Wood	
Ferrous metals	
Aluminium	
Glass	
Paper and cardboard	
Other	

5. Accuracy of the data

5.1. Description of main issues affecting the accuracy of data on reusable packaging, including errors related to sampling, coverage, measurement, processing and non-response

5.2. Explanation of the scope and validity of surveys to collect data on reusable packaging

▼ M2

Description of the verification methods concerning data on packaging waste generated in case data on packaging placed on the market is used

2.1.2. Explanation of the application of estimates in case data on packaging placed on the market is used (for instance, where data collection does not cover the whole market or in order to take account of free riders, private shipments in or out of the country or on-line sales)

2.1.3. Indication whether an estimate has been calculated and added (Yes/No) and if 'Yes' the added volume in % of the total

Packaging waste material/Validation	Total	Plastic	Wood	Ferrous metals	Aluminium	Glass	Paper and cardboard	Other
General estimates (e.g. based on surveys)								
Free-riders								
Private shipments								
On-line sales								
Others								

2.1.4. Description of the methodology and verification of data on packaging waste generated in case data on packaging waste is used, including (a) how non-packaging waste collected together with packaging waste as well as (b) packaging materials in other waste (mixed waste streams) are accounted for.

2.1.5. Description of the methodology to report on composite packaging, including where materials contained in composite packaging and representing less than 5 % of the mass of the packaging unit are not reported separately.

2.1.6. Verification of data on packaging waste generated

Packaging waste material	Cross-check (yes/no)	Time-series check (yes/no)	Audit (yes/no)	Verification Process
Plastic				

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Additional information about the methods, including the combination of methods used

2.2.3. Measurement points for recycling applied by the Member State

Packaging waste material	Description of measurement points used (at calculation point or at the output of sorting operation with subtraction of non-target materials as appropriate, end-of-waste criteria, etc.), including variation at regional and local level
Plastic	
Wood	
Ferrous metals	
Aluminium	
Glass	
Paper and cardboard	
Other	

Detailed description of the methodology to calculate the amount of non-target materials removed between the measurement and the calculation points, where applicable

2.2.4. Description of the methodology to determine per material the amount of recycled materials contained in composite packaging or of packaging composed of multiple materials, and information on any exemptions applied for materials constituting less than 5 % of the total mass of the packaging unit.

2.2.5. Use of Average Loss Rates (ALRs)

Description of the sorted packaging waste to which ALRs are applied, types of sorting plants to which different ALRs apply, the methodological approach to calculating ALRs at such point(s), including the statistical accuracy of any surveys used, or the nature of any technical specifications.

Sorted waste material and sorting plant type	ALR applied (in %)	Description

Add rows as appropriate.

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2.2.6. Attribution of waste to packaging and non-packaging types and correction for humidity

Description, where applicable, of the methodology to exclude non-packaging waste from the reported amount of recycled packaging waste and of the methodology to correct the amount of packaging waste at the measurement point in order to reflect the natural humidity rate of packaging (including by using relevant European standards). Aggregated data across facilities of a similar type is acceptable.

Packaging waste material	Facility type	Share of packaging waste (%)	Description of the methodologies applied to obtain the percentage

Add rows as appropriate.

2.2.7. Attribution of waste to different Member States

Description of the methodology to exclude waste originating from other countries, where applicable. Aggregated data across facilities of a similar type is acceptable.

Packaging waste material	Facility type	Share of waste from the Member State (%)	Description of the methodologies applied to obtain the percentage

Add rows as appropriate.

2.2.8. Other recovery of waste

Description of treatment of waste reported under the category of other recovery and the share of waste (%) subject to such treatment

2.2.9. Information on the relevance of temporary storage of packaging waste to the amounts of treated waste in a given year and any estimates of waste recycled in the current reference year following temporary storage in a previous reference year, and waste going to temporary storage in the current reference year

2.2.10. Verification of data on packaging waste recycling

Packaging waste material	Cross-check (yes/no)	Time-series check (yes/no)	Audit (yes/no)	Verification Process
Plastic				
Wood				

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Packaging waste material	Cross-check (yes/no)	Time-series check (yes/no)	Audit (yes/no)	Verification Process
Ferrous metals				
Aluminium				
Mixed waste				
Other				

2.2.11. Calculation of recycling of metals from incinerator bottom ash

Detailed description of the method to collect data in order to calculate the amount of metals separated from incineration bottom ash in accordance with the Commission Implementing Act adopted in accordance with Article 37(7) of Directive 2008/98/EC

Data	Description of the measurement method to obtain the data
Total amount of metal concentrate extracted from incinerator bottom ash	
Average level of metallic content in the total amount of metal concentrate, including the reliability of any surveys undertaken	
Proportion of waste entering incineration plants that is packaging waste, including the reliability of any surveys undertaken	

2.3. Accuracy of the data

2.3.1. Description of main issues affecting the accuracy of data on the generation and treatment of packaging waste, including errors related to sampling, coverage, measurement, processing and non-response

2.3.2. Explanation of the scope and validity of surveys to collect data on the generation and treatment of packaging waste

2.3.3. Statistical surveys used regarding packaging waste generation and treatment

Component of packaging waste	Year	Statistical units	Percentage of population surveyed	Data (tonnes)	Confidence level	Error margin	Details of adjustments from the survey year to the current year	Other details

Add rows for each survey used.

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2.3.4. Differences from previous year's data

Significant methodological changes in the calculation method for the current reference year, if any (please include in particular retrospective revisions, their nature and whether a break-flag is required for a certain year)

2.3.5. Explanation detailing the causes of the tonnage difference (in relation to which waste streams, sectors or estimates have caused the difference, and what the underlying cause is) for any component of packaging waste generated and recycled which shows greater than a 10 % variation from the data submitted for the previous data year

Material	Variation (%)	Main reason for variation

Add rows as appropriate.

VI. Traceability of waste and ensuring its treatment in conditions that are broadly equivalent of the requirements of EU environmental law

1. Detailed description of the system for quality control and traceability for packaging waste pursuant to Article 6a(3) and (8) of Directive 94/62/EC

2. Waste treated outside the Member State

Packaging waste material	Subject to final treatment in the Member State (yes/no)	Shipped to another EU Member State (yes/no)	Exported outside the EU (yes/no)	Description of specific measures for quality control and traceability of packaging waste, in particularly as regards monitoring and validation of data
Plastic				
Wood				
Ferrous metals				
Aluminium				
Glass				
Paper and cardboard				
Other				

3. Description of measures to ensure that, in accordance with Article 6a(8) of Directive 94/62/EC, the exporter can prove that the shipment of waste complies with the requirements of Regulation (EC) No 1013/2006 of the European Parliament and of the Council ⁽¹⁾ and that the treatment of waste outside the Union took place in conditions that are broadly equivalent to the requirements of the relevant Union environmental law

⁽¹⁾ Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (OJ L 190, 12.7.2006, p. 1).

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VII. Confidentiality

Justification to withhold the publication of specific parts of this report:

VIII. Main national websites, reference documents and publications
