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Delegations will find attached document D079976/01 - Annex.

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EN

ANNEX**EU Ecolabel criteria for awarding the EU Ecolabel to growing media and soil improvers
FRAMEWORK****EU Ecolabel Criteria**

The criteria for awarding the EU Ecolabel to growing media and soil improvers, and their applicability to each type of product covered by the scope, are as follows:

Table 1. Overview of applicable criteria according to the specific product

Criterion	Growing media	Soil improvers
1 – Components	x	x
1.1 – Organic components of the product	x	x
2 – Mineral components	x	x
2.1 – Energy consumption and CO ₂ emissions during the manufacture of mineral growing media	x	
2.2 – Sources of mineral extraction	x	x
2.3 – Mineral growing media use and after use	x	
3 – Organic components and recycled/recovered materials in growing media	x	
4 – Restricted substances	x	x
4.1 – Limits for heavy metals	x	x
4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	x	x
4.3 – Restrictions on substances and mixtures classified as hazardous under Regulation (EC) No 1272/2008 of the European Parliament and of the Council ¹	x	x

¹ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

Criterion	Growing media	Soil improvers
4.4 – Restrictions on substances of very high concern (SVHCs) as identified under Regulation (EC) No 1907/2006 of the European Parliament and of the Council ²	x	x
4.5 – Microbiological criteria	x	x
5 – Fitness for use	x	x
5.1 – Stability	x	x
5.2 – Macroscopic impurities	x	x
5.3 – Organic matter and dry matter in soil improvers		x
5.4 – Viable weed seeds and plant propagules	x	x
5.5 – Plant response	x	x
6 – Growing media features	x	
6.1 – Electrical conductivity	x	
6.2 – Sodium content	x	
6.3 – Chloride content	x	
7 – Provision of information	x	x
7.1 – Soil improvers		x
7.2 – Growing media	x	
8 – Information appearing on the EU Ecolabel	x	x

² Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396 30.12.2006, p. 1).

Assessment and verification requirements

For the EU Ecolabel to be awarded to a specific product, applicants must comply with each requirement.

Specific assessment and verification requirements are indicated under each criterion.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, these may originate from the applicant and/or their supplier(s) as appropriate.

Competent bodies shall preferentially recognise attestations that are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories, and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes and services.

Where appropriate, test and sampling methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.

Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.

Changes in suppliers and production sites pertaining to products to which the EU Ecolabel has been granted shall be notified to competent bodies, together with supporting information to enable verification of continued compliance with the criteria.

As a prerequisite, the product must meet the relevant requirements in Regulation (EU) 2019/1009 or the legal requirements of the Member State in which the product is intended to be placed on the market. In the latter case, the applicant shall declare the product's compliance with this requirement.

The sampling shall be carried out in accordance with EN 12579 (Soil improvers and growing media – Sampling). Samples are prepared in accordance with EN 13040 (Soil improvers and growing media – Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory compacted bulk density).

Once available, test and sampling methods shall be conducted in accordance with the corresponding harmonised standards, the references of which have been published in the Official Journal of the European Union in accordance with Article 13 of Regulation (EU) 2019/1009³.

For the application year, the sampling and test frequency shall fulfil the requirements set down in Appendix 1. For the following years, the sampling and test frequency of products shall fulfil the requirements set down in Appendix 2. Different sampling and testing frequencies are set for the following types of plants:

- Type 1: Treatment plants for waste or for animal by-products;*
- Type 2: Product manufacture plants using materials from Type 1 plants; and*
- Type 3: Product manufacture plants not using materials from Type 1 plants.*

³ Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003 (OJ L 170, 25.6.2019, p. 1).

For Type 2 plants, the sampling and test frequencies for the application year and the following years will be the same as the frequencies set for Type 3, if the supplied materials derived from waste/animal by-products comply with the EU Ecolabel criteria for growing media and soil improvers. The applicant shall provide the competent body with the test reports from the suppliers, together with the documentation, to ensure the compliance of the supplied material with the EU Ecolabel criteria. The competent body may recognise the sampling and testing frequencies under national legislation and standards as valid to ensure compliance with the EU Ecolabel criteria of the supplied materials derived from waste or animal by-products.

A written confirmation from the applicant that all the criteria are fulfilled shall also be required for the assessment.

An EU fertilising product is a fertilising product that is CE marked when made available on the market. If the product is an EU fertilising product, the following documentation shall be delivered to the competent body: the EU declaration of conformity; the technical documentation; and, where applicable, the documents issued by a notified body involved in the conformity assessment procedure of the product.

For the purposes of this Annex, the following definitions shall apply:

- (1) 'annual input' means the annual quantity of materials treated in a waste or animal by-product treatment plant;
- (2) 'annual output' means the annual quantity of products composed of the same components;
- (3) 'batch' means a quantity of goods manufactured by the same process under the same conditions and labelled in the same manner and is assumed to have the same characteristics;
- (4) 'bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises and comparable waste from food processing plants, including similar waste from households collected together with bio-waste;
- (5) 'component' means the material that is used as an ingredient of the product;
- (6) 'mineral growing medium' means a growing medium totally composed of mineral components, which is only offered for use for professional horticultural applications, as green walls and/or green roofs;
- (7) 'organic component' means components composed primarily of carbon and molecules derived from living organisms, other than fossil fuels and materials derived from fossil fuels;
- (8) 'recovered material' means any material that underwent any recovery operation, including preparing for re-use, recycling and backfilling, but excluding energy recovery and the reprocessing into materials that are to be used as fuels or other means to generate energy;
- (9) 'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials that would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy;
- (10) 'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes, including the reprocessing of organic material but excluding energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;
- (11) 'total organic carbon (TOC)' means quantity of carbon that is converted into carbon dioxide by combustion and which is not liberated as carbon dioxide by acid treatment.

Criterion 1 – Components

This criterion applies to growing media and soil improvers.

The components admitted shall be organic and/or mineral components.

The product shall not contain intentionally added peat.

Criterion 1.1 – Organic components of the product

The product may contain one or more of the following organic components:

- (a) plants, plant parts or plant extracts, derived from agricultural or forestry activities, having undergone no other processing than cutting, grinding, milling, sieving, sifting, centrifugation, pressing, drying, frost treatment, freeze-drying, extraction with water, supercritical CO₂ extraction, or fiberisation at a temperature not higher than 100°C and without any additives except water. For the purpose of this point, plants include mushrooms and algae and exclude blue-green algae (cyanobacteria);
- (b) food industry factory lime, i.e. a material from the food processing industry obtained by carbonation of organic matter, using exclusively burnt lime from natural sources;
- (c) molasses, i.e. a viscous by-product of the refining of sugar cane or sugar beets into sugar;
- (d) vinasse, i.e. a viscous by-product of the fermentation process of molasses into ethanol, ascorbic acid or other products;
- (e) distillers grains, i.e. by-products resulting from the production of alcoholic beverages;
- (f) lime from drinking water production, i.e. residue that is released by production of drinking water from groundwater or surface water and consists, mainly, of calcium carbonate;
- (g) digestate obtained through anaerobic digestion or compost obtained through aerobic composting of one or more of the materials listed below from 1 to 5.

Organic components (g) can be obtained by processing one or more of the following input materials:

- 1) bio-waste from separate collection at source, as defined in Directive 2008/98/EC⁴;
- 2) living or dead organisms or parts thereof that are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except:
 - a. materials originating from mixed municipal waste;
 - b. sewage sludge, industrial sludge or dredging sludge;
 - c. animal by-products or derived products falling within the scope of Regulation (EC) No 1069/2009 of the European Parliament and of the Council⁵ for which

⁴ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

no end point in the manufacturing chain has been determined in accordance with Article 5(2), third subparagraph, of that Regulation;

- 3) category 2 or category 3 materials or derived products thereof, in accordance with the conditions set out in Article 32(1) and (2) and in the measures referred to in Article 32(3) of Regulation (EC) No 1069/2009, provided that the end point in the manufacturing chain has been determined, in accordance with Article 5(2), third subparagraph, of that Regulation, and reached before placing the product on the market;
- 4) sludges that comply with both of the following two conditions:
 - I. they are identified as one of the following types of waste⁶:
 - 0203 05 sludges from on-site effluent treatment in the preparation and processing of fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco, conserve production, yeast and yeast extract production, molasses preparation and fermentation;
 - 0204 03 sludges from on-site effluent treatment in sugar processing;
 - 0205 02 sludges from on-site effluent treatment in the dairy products industry;
 - 0206 03 sludges from on-site effluent treatment in the baking and confectionery industry;
 - 0207 05 sludges from on-site effluent treatment in the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa);
 - II. they are single-source separated, meaning that there has been no mixing with effluents or sludges outside a specific production process.
- 5) digestate obtained through anaerobic digestion or compost obtained through aerobic composting of any of the materials indicated in points 1, 2, 3 and 4 of this list.

Assessment and verification

The applicant shall provide the competent body with the list of all components of the product.

The applicant shall provide the competent body with the information about the origin of each organic component of the product and a declaration of compliance with the requirements of Criterion 1 of this Annex.

⁵ Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation) (OJ L 300, 14.11.2009, p. 1).

⁶ Types of wastes and reference codes as identified in Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (OJ L 226, 6.9.2000, p. 3).

Criterion 2 – Mineral components

Criterion 2.1 – Energy consumption and CO₂ emissions during the manufacture of mineral growing media

This criterion applies to mineral growing media only.

The manufacture of expanded minerals and mineral wool shall fulfil the following energy consumption and CO₂ emissions thresholds:

- energy consumption / product ≤ 11 GJ/t product, in primary energy; and
- CO₂ emissions / product ≤ 0.7 t CO₂/t product.

‘Product’ refers to the mineral wool in any of the forms placed on the market (e.g. slabs, cubes, plugs).

The ratio energy consumption/product shall be calculated as an annual average as follows:

$$\text{ratio} \frac{\text{Energy}}{\text{Product}} = \frac{1}{\sum_{i=1}^n \text{Production}_i} \cdot \sum_{i=1}^n \left(F + 2.1 \cdot \text{El}_{\text{grid}} + \left(\frac{H_{\text{cog}}}{\text{Ref } H\eta} + \frac{\text{El}_{\text{cog}}}{\text{Ref } E\eta} \right) \cdot (1 - \text{PES}_{\text{cog}}) \right)_i$$

Where:

- *n* is the number of years of the period used to calculate the average;
- *i* is each year of the period used to calculate the average;
- *Production* is the production of the mineral wool or expanded minerals in tonnes in the year *i*;
- *F* is the annual consumption of fuels in the production process in the year *i*;
- *El_{grid}* is the annual electricity consumption from the grid in the year *i*;
- *H_{cog}* is the annual consumption of useful heat from cogeneration in the year *i*;
- *El_{cog}* is the annual consumption of electricity from cogeneration in the year *i*;
- *Ref Hη* and *Ref Eη* are the reference efficiencies for the separate production of heat and electricity as defined in Directive 2012/27/EU⁷ and calculated in accordance with Commission Delegated Regulation (EU) 2015/2402;⁸ and
- *PES_{cog}* is the primary energy saving of the cogeneration plant as defined in the Directive 2012/27/EU, in the year *i*.

The ratio CO₂ emissions/production shall be calculated as an annual average as follows:

⁷ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

⁸ Commission Delegated Regulation (EU) 2015/2402 of 12 October 2015 reviewing harmonised efficiency reference values for separate production of electricity and heat in application of Directive 2012/27/EU of the European Parliament and of the Council and repealing Commission Implementing Decision 2011/877/EU (OJ L 333, 19.12.2015, p. 54).

$$\text{ratio} \frac{\text{CO}_2 \text{ emissions}}{\text{Product}} = \frac{1}{\sum_{i=1}^n \text{Production}_i} \cdot \sum_{i=1}^n (\text{Direct CO}_2 + \text{Indirect CO}_2)_i$$

Where:

- *n* is the number of years of the period used to calculate the average;
- *i* is each year of the period used to calculate the average;
- *Production* is the mineral wool production in tonnes in the year *i*;
- *Direct CO₂* is the CO₂ emissions in accordance with Commission Implementing Regulation (EU) 2018/2066⁹, in the year *i*; and
- *Indirect CO₂* is the indirect CO₂ emissions due to final energy consumption in the year *i*, and shall be calculated in accordance with Commission Delegated Regulation (EU) 2019/331¹⁰.

The direct CO₂ emissions shall be monitored in accordance with Implementing Regulation (EU) 2018/2066.

The indirect CO₂ emissions shall be monitored in accordance with Article 6 of Delegated Regulation (EU) 2019/331 on free allocation rules.

The period to calculate the ratios energy consumption/product and CO₂ emissions/product shall be the last five years before the submission of the application. If the operation period of the plant is less than five years at the date of the submission of the application, the ratio shall be calculated as an annual average of that operation period, which shall be at least one year.

⁹ Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (OJ L 334, 31.12.2018, p. 1).

¹⁰ Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 59, 27.2.2019, p. 8).

Assessment and verification

The applicant shall provide the competent body with a declaration that includes the following information:

- *ratio energy consumption (GJ)/product (tonne);*
- *ratio CO₂ emissions (tonne)/product (tonne);*
- *direct CO₂ emissions (tonnes) for each year of the period to calculate the average;*
- *indirect CO₂ emissions (tonnes) for each year of the period to calculate the average;*
- *fuels consumed, consumption of each fuel (GJ), sub-process(es) of the manufacture process where they are consumed for each year of the period to calculate the average;*
- *electricity consumption from the grid (GJ final energy) for each year of the period to calculate the average;*
- *useful heat consumption from cogeneration (GJ final energy) for each year of the period to calculate the average;*
- *electricity consumption from cogeneration (GJ final energy) for each year of the period to calculate the average;*
- *reference efficiencies for separate production of heat and electricity;*
- *primary energy saving (PES) (%) of the cogeneration for each year of the period to calculate the average; and*
- *identification of fuels used in cogeneration and their share in the fuel mix, for each year of the period to calculate the average.*

The following documents shall be provided together with the declarations:

- *annual emissions report in accordance with Implementing Regulation (EU) 2018/2066, for each year of the period to calculate the average;*
- *verification report finding the annual emissions report satisfactory in accordance with Commission Implementing Regulation (EU) 2018/2067¹¹, for each year of the period to calculate the average;*
- *records of electricity consumption from the grid provided by the supplier, for each year of the period to calculate the average; and*
- *records of the useful heat and electricity consumption from cogeneration, both on-site and purchased, for each year of the period to calculate the average.*

¹¹ Commission Implementing Regulation (EU) 2018/2067 of 19 December 2018 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 334, 31.12.2018, p. 94).

Criterion 2.2 – Sources of mineral extraction

This criterion applies to growing media and soil improvers.

The extraction of minerals to be used as a component of an EU Ecolabel growing medium and soil improver shall only take place on sites that are covered by the following documentation:

- an environmental impact assessment and, where relevant, a report in accordance with Directive 2014/52/EU¹²;
- a valid authorisation for the extraction activity issued by the relevant regional or national authority;
- a rehabilitation management plan associated with the authorisation for the extraction activity;
- a map indicating the location of the quarry;
- a declaration of conformity with Regulation (EU) No 1143/2014¹³;
- a declaration of conformity with Council Directive 92/43/EEC¹⁴ (habitats) and Directive 2009/147/EC¹⁵ (birds).

Regarding the last point above, in cases where extraction sites are located in Natura 2000 network areas, composed of special areas of conservation referred to in Article 3 of Directive 92/43/EEC and special protection areas as defined in Article 4 of Directive 2009/147/EC, extraction activities shall have been assessed and authorised in accordance with the provisions laid down in Article 6 of Directive 92/43/EEC and have taken into account the relevant European Commission guidance document¹⁶.

Also regarding the last point above, in cases where extraction sites are located outside the EU, if materials are extracted from areas officially nominated as candidates for or adopted as: areas of special conservation interest; part of the Emerald network pursuant to Recommendation No 16 (1989) and Resolution No 3 (1996) of the Convention on the Conservation of European Wildlife and Natural Habitats¹⁷; or protected areas designated as such under the national legislation of the sourcing/exporting countries, the extraction activities shall have been assessed and authorised in accordance with provisions that provide assurances equivalent to Directives 92/43/EEC and 2009/147/EC.

¹² Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (OJ L 124, 25.4.2014, p.1).

¹³ Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (OJ L 317, 4.11.2014, p. 35).

¹⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

¹⁵ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7).

¹⁶ European Commission, Directorate-General for Environment, Guidance document on non-energy mineral extraction and Natura 2000: a summary. Publications Office, 2019, <https://data.europa.eu/doi/10.2779/985239>.

¹⁷ Convention on the Conservation of European Wildlife and Natural Habitats (OJ L 38, 10.2.1982, p. 3).

Assessment and verification

The applicant shall provide a declaration of compliance with this requirement issued by the competent authorities, or a copy of the authorisations issued by the competent authorities, and any other required declarations and documentation.

The rehabilitation management plan shall include the objectives for the rehabilitation of the quarry, the conceptual final landform design, including the proposed post-quarry land use, details on the implementation of an effective revegetation programme and details of an effective monitoring programme to assess the performance of rehabilitated areas.

If industrial or construction mineral extraction activities have been carried out in Natura 2000 network areas (in the Union), the Emerald network or protected areas designated as such under national legislation of the sourcing/exporting countries (outside the Union), the applicant shall provide a declaration of compliance with this requirement issued by the competent authorities or a copy of their authorisation issued by the competent authorities.

Criterion 2.3 – Mineral growing media use and after use

This criterion is applicable to mineral growing media only.

The applicant shall offer customers a structured collection and recycling service, which may use third-party service providers. The collection and recycling service shall cover a minimum of 70% of the applicant sales, expressed in volume, across the Union.

Assessment and verification

The applicant shall provide the competent body with a declaration that the mineral growing media are only offered for use in professional horticultural applications. A statement about the professional horticultural application of the product shall be included in the information provided to the end-user.

The applicant shall inform the competent body about the option(s) on offer of structured collection and recycling services and the results of the options implemented. In particular, the applicant shall provide the following documentation and information:

- *contract documentation between the manufacturer and the service providers;*
- *description of collection, processing and destinations;*
- *annual overview of the total sales volume of growing media in the European Union Member States and an annual overview of the sales volumes in areas of those Member States where collection and processing are on offer.*

In the case of new entrants, an estimation of the annual overview of the total sales volume of growing media in the EU Member States, and an estimation of the annual overview of the sales volumes in areas of those Member States where collection and processing are on offer, shall be provided. Real data shall be provided one year after the EU Ecolabel licence is awarded.

Criterion 3 – Organic components and recycled/recovered materials in growing media

This criterion applies to growing media only.

Growing media shall consist of organic or recycled/recovered content, in accordance with either of the following:

- (a) the growing medium shall consist of at least 30% of organic components (expressed as volume of organic components per total volume of the product);
- (b) the growing medium shall consist of mineral components manufactured from a process using at least 30% of recycled/recovered materials (expressed as the dry weight of recycled/recovered materials per total dry weight of the input materials).

Assessment and verification

The applicant shall declare the following information:

- *for case (a): volume of organic components declared in Criterion 1 per total volume of the product;*
- *for case (b): dry weight of recycled/recovered materials per total dry weight of the input materials.*

For case (b), the applicant shall also declare the following information about the mineral components:

- *identification of raw material inputs, reporting amounts as dry weight and origins;*
- *identification of recycled/recovered material inputs, reporting amount and origin, which is to be supported by invoice or verification documents provided by the supplier of the material.*

Criterion 4 –Restricted substances**Criterion 4.1 – Limits for heavy metals**

This criterion applies to growing media and soil improvers.

Criterion 4.1(a) – Limits for heavy metals in soil improvers

The content of the following elements in the product shall be lower than the values shown in Table 2, measured in terms of dry matter (DM) of the product.

Table 2. Heavy metals limits for soil improvers

Heavy metal	Maximum content in the product (mg/kg DM)
Cadmium (Cd)	1
Chromium (total)	100
Copper (Cu)	200
Mercury (Hg)	0.45
Nickel (Ni)	40
Lead (Pb)	100
Zinc (Zn)	300
Inorganic Arsenic (As)	10

Criterion 4.1(b) – Limits for heavy metals in growing media

The content of the following elements in the product shall be lower than the values shown in Table 3, measured in terms of dry matter (DM) of the product.

Table 3. Heavy metal limits for growing media

Heavy metal	Maximum content in the product (mg/kg DM)	
	Mineral growing media	Growing media other than mineral growing media
Cadmium (Cd)	1.3	1.3
Chromium (total)	310	100
Chromium VI(Cr VI)	2	Not applicable
Copper (Cu)	200	200
Mercury (Hg)	0.45	0.45
Nickel (Ni)	40	40
Lead (Pb)	100	100
Zinc (Zn)	300	300
Inorganic arsenic (As)	10	10

Assessment and verification

The applicant shall provide the competent body with the reports of tests conducted in accordance with existing EN standards or testing procedures that are performed in a reliable and reproducible manner.

For chromium total content, the applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in EN 13650.

In growing media of solely mineral components, the limit for nickel shall refer to its bioavailable content.

Criterion 4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)

This criterion applies to growing media and soil improvers.

The content in the product of the following polycyclic aromatic hydrocarbons shall be lower than the values shown in Table 4, measured in terms of dry matter of the product.

Table 4. Limit for PAHs

Pollutant	Maximum content in the product (mg/kg DM)
PAH ₁₆	6

PAH₁₆ = sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[ghi]perylene.

Assessment and verification

The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in EN 16181.

Criterion 4.3 – Restrictions on substances and mixtures classified as hazardous under Regulation (EC) No 1272/2008

The criterion applies to soil improvers and growing media.

The product shall not be classified in accordance with any of the hazard classes, categories and associated hazard statements codes, in accordance with Regulation (EC) No 1272/2008, that are listed in the following paragraph.

The product shall not contain intentionally added substances or mixtures in concentration greater than 0.010% w/w (in terms of wet weight) that are assigned any of the following hazard classes, categories and associated hazard statement codes, in accordance with Regulation (EC) No 1272/2008:

- Group 1 hazards: Category 1A or 1B carcinogenic, mutagenic and/or toxic for reproduction (CMR): H340, H350, H350i, H360, H360F, H360D, H360FD, H360Fd, H360Df;
- Group 2 hazards: Category 2 CMR: H341, H351, H361, H361f, H361d, H361fd, H362; Category 1 aquatic toxicity: H400, H410; Category 1 and 2 acute toxicity: H300, H310, H330; Category 1 aspiration toxicity: H304; Category 1 specific target organ toxicity (STOT): H370, H372; and
- Group 3 hazards: Category 2, 3 and 4 aquatic toxicity: H411, H412, H413; Category 3 acute toxicity: H301, H311, H331; Category 2 STOT: H371, H373.

The hazard statement codes generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures shall apply.

The use of substances or mixtures that are chemically modified during the production process, so that any relevant hazard for which the substance or mixture has been classified under

Regulation (EC) No 1272/2008 no longer applies, shall be exempted from the above requirement.

This criterion does not apply to those components composed of:

- substances not included in the scope of Regulation (EC) No 1907/2006¹⁸ as defined in Article 2(2) of that Regulation;
- substances covered by Article 2(7)(b) of Regulation (EC) No 1907/2006, which sets out the criteria for exempting substances included in Annex V to that Regulation from the registration, downstream user and evaluation requirements.

In order to determine if this exclusion applies, the applicant shall screen any intentionally added substances or mixtures present at a concentration above 0.010% w/w (in terms of wet weight) in the product.

Assessment and verification

The applicant shall provide a list of all relevant components and chemicals intentionally added in the production process, together with the relevant safety data sheets or chemical supplier declarations that demonstrate the compliance with the requirement.

Any components or chemicals containing substances or mixtures classified under Regulation (EC) No 1272/2008 shall be highlighted.

The approximate dosing rate of the component or chemical, together with the concentration of the restricted substance or mixture in that component or chemical (as provided in the safety data sheet or supplier declaration) and an assumed retention factor of 100%, shall be used to estimate the quantity of the restricted substance or mixture remaining in the product.

Justifications for any deviation from a retention factor of 100% or for chemical modification of a restricted hazardous substance or mixture must be provided in writing.

For components or substances exempted from meeting the requirement of Criterion 4.3 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice to comply.

In the case of mineral wool, the applicant shall also provide the following:

- (a) copy of a certificate awarded for the right to use the European Certification Board for Mineral Wool Products trademark as proof of compliance with Note Q of Annex VI to Regulation (EC) No 1272/2008;*
- (b) copy of a test report under the terms of ISO 14184-1 Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde.*

The above evidence can also be provided directly to competent bodies by any supplier in the applicant's supply chain.

¹⁸ Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

Criterion 4.4 – Restrictions on substances of very high concern (SVHCs) as identified under Regulation (EC) No 1907/2006

The criterion applies to soil improvers and growing media.

The product shall not contain any intentionally added substance meeting the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 that has been identified in accordance with the procedure described in Article 59 of that Regulation and included in the candidate list of substances of very high concern (SVHCs) for authorisation.

Assessment and verification

The applicant shall provide a declaration that they have not intentionally added any SVHCs during their production process. This applicant declaration shall be supported by declarations and safety data sheets of all supplied chemicals and materials used to produce the EU Ecolabel product(s) – to confirm that no SVHC has been intentionally added to those supplied chemicals or materials.

Criterion 4.5 – Microbiological criteria

This criterion applies to growing media and soil improvers, with the exception of mineral growing media.

The content of primary pathogens in the product shall not exceed the maximum levels set in Table 5.

Table 5. Limit value proposed for pathogens

Micro-organisms to be tested	Sampling plans			Limit
	n	c	m	M
<i>Salmonella spp.</i>	5	0	0	Absence in 25 g or 25 ml
<i>Escherichia coli</i> or <i>Enterococcaceae</i>	5	5	0	1 000 CFU in 1 g or 1 ml

CFU = colony-forming units

Where:

- n is the number of samples to be tested;
- c is the number of samples where the number of bacteria expressed in CFU is between m and M;
- m is the threshold value for the number of bacteria expressed in CFU that is considered satisfactory; and
- M is the maximum value of the number of bacteria expressed in CFU.

Assessment and verification

The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in Table 6.

Table 6. Standard test method for the detection of specific pathogens

Parameter	Test method
<i>E. coli</i>	CEN/TR 16193 or ISO 16649-2 or EN ISO 9308-3
<i>Salmonella</i> spp.	EN ISO 6579 or CEN/TR 15215
<i>Enterococcacea</i>	EN 15788 or EN ISO 7899-1 or BEA method

Criterion 5 – Fitness for use**Criterion 5.1 – Stability**

This criterion applies to growing media and soil improvers, with the exception of mulches totally composed by lignocellulosic components and mineral growing media.

Soil improvers for non-professional applications and growing media for all applications shall meet one of the requirements presented in Table 7.

Table 7. Stability requirements of soil improvers intended for non-professional applications and growing media intended for all applications

Stability parameter	Requirement
Maximum Respirometric index	15 mmol O ₂ /kg organic matter/h
Minimum Rottegrad, where applicable	IV (self-heating test temperature rise of maximum 20°C above ambient temperature)

Soil improvers for professional applications shall meet one of the requirements presented in Table 8.

Table 8. Stability requirements of soil improvers intended for professional applications

Stability parameter	Requirement
Maximum Respirometric index	25 mmol O ₂ /kg organic matter/h
Minimum Rottegrad, where applicable	III (self-heating test temperature rise of maximum 30°C above ambient temperature)

Assessment and verification

The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in Table 9.

Table 9. Standard test method for the determination of stability parameters

Parameter	Test method
Respirometric index	EN 16087-1
Rottegrad	EN 16087-2

Criterion 5.2 – Macroscopic impurities

This criterion applies to growing media and soil improvers, with the exception of mineral growing media:

- (a) no more than 3 g/kg dry matter of macroscopic impurities above 2 mm in any form of glass and metal, each;
- (b) no more than 2.5 g/kg dry matter of macroscopic impurities above 2 mm in form of plastic; and
- (c) no more than 5 g/kg dry matter of the sum of the macroscopic impurities referred to in point (a) and point (b).

Assessment and verification

The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16202, or another equivalent testing procedure authorised by the competent body.

Criterion 5.3 – Organic matter and dry matter in soil improvers

This criterion applies to soil improvers.

The organic matter as loss on ignition of the product shall not be lower than 15% dry mass or 8.5% of organic carbon (C_{org}) content by mass.

The dry matter content of the product shall not be lower than 25% fresh weight (% FW).

Assessment and verification

The applicant shall provide the competent body with reports of tests conducted in accordance with the testing procedure presented in Table 10.

Where compliance is assessed based on organic matter, the following conversion factor applies: organic carbon (C_{org}) = organic matter × 0.56

Table 10. Standard test methods for the determination of dry matter, organic matter and total organic carbon contents (TOC)

<i>Parameter</i>	<i>Test method</i>
Dry matter (% FW)	EN 13040
Organic matter as loss on ignition (% dry mass)	EN 13039
Total organic carbon (TOC) (% dry mass)	EN 15936

Criterion 5.4 – Viable weed seeds and plant propagules

This criterion applies to growing media and soil improvers, with the exception of mineral growing media.

In the product, the content of viable weed seeds and plant propagules shall not exceed two units per litre.

Assessment and verification

The applicant shall provide the competent body with a report of a test in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16201, or another equivalent testing procedure authorised by the competent body.

Criterion 5.5 – Plant response

This criterion applies to growing media and soil improvers.

Products shall not adversely affect plant emergence or subsequent growth.

Assessment and verification

The applicant shall provide the competent body with a valid test conducted in accordance with the testing procedure indicated in EN 16086-1.

Criterion 6 – Growing media features

This criterion only applies to growing media.

Criterion 6.1 – Electrical conductivity

The electrical conductivity of the product shall be below 100 mS/m.

Assessment and verification

The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 13038.

Criterion 6.2 – Sodium content

The sodium content in water extract of the product shall not exceed 150 mg/l fresh product.

Assessment and verification

The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 13652.

Criterion 6.3 – Chloride content

The chloride content in water extract of the product shall not exceed 500 mg/l fresh weight of the product.

Assessment and verification

The applicant shall provide the competent body with the report of the test conducted in accordance with the testing procedure indicated in EN 16195.

Criterion 7 – Provision of information

This criterion applies to growing media and soil improvers.

The information indicated under Criterion 7.1 or 7.2, as applicable, shall be provided.

The information shall be provided with the product, either on the packaging or in accompanying documents.

An EU fertilising product falling within the product function category 3(A) (organic soil improvers) or the product function category 4 (growing media) under the terms of Regulation (EU) 2019/1009 shall be deemed to comply with the requirement.

For mineral growing media, the provision of information shall include a statement about the professional horticultural application.

Criterion 7.1 – Soil improvers

- a) the name and address of the body responsible for marketing;
- b) a descriptor identifying the product by type, including the wording ‘SOIL IMPROVER’;
- c) a batch identification code;
- d) the quantity (indicated by mass or volume);
- e) range of moisture content or the dry matter content expressed as % by mass;
- f) a list of all components above 5 % by product weight or volume in descending order of magnitude by dry weight; where the component is a substance or a mixture, it shall be identified as specified in Article 18 of Regulation (EC) No 1272/2008;
- g) the recommended conditions of storage and the recommended ‘use by’ date;
- h) guidelines for safe handling and use, including any relevant information on measures recommended to manage risks to human, animal or plant health, to safety or to the environment;
- i) instructions for intended use, including application rates, timing and frequency, and target plants or mushrooms;
- j) pH;
- k) electrical conductivity given as mS/m, except for mineral wool;
- l) organic matter content or organic carbon (Corg) content, expressed as % by mass;
- m) minimum amount of organic nitrogen (Norg), expressed as % by mass, followed by a description of the origin of the organic matter used;
- n) the ratio of organic carbon to total nitrogen (Corg/N).

The following nutrients shall be declared, expressed as % by mass, if exceeding 0.5% by mass: nitrogen (N), phosphorus pentoxide (P₂O₅) and potassium oxide (K₂O).

Criterion 7.2 – Growing media

- a) the name and address of the body responsible for marketing;
- b) a descriptor identifying the product by type, including the wording ‘GROWING MEDIUM’;
- c) a batch identification code;
- d) the quantity:
 - for plugs of mineral wool, expressed as number of pieces and the two dimensions diameter and height;
 - for mineral wool having forms other than plugs, expressed as number of pieces and the three dimensions length, height and width;
 - for other pre-shaped growing media, expressed as size in at least two dimensions;
 - for other growing media, expressed as total volume;
 - except for pre-shaped growing media, quantity expressed as volume of materials with a particle size greater than 60 mm, when present;
- e) range of moisture content or the dry matter content expressed as % by mass;
- f) a list of all components above 5% by product weight or volume in descending order of magnitude by dry weight; where the component is a substance or a mixture, it shall be identified as specified in Article 18 of Regulation (EC) No 1272/2008;
- g) the recommended conditions of storage and the recommended ‘use by’ date and production date;
- h) guidelines for safe handling and use, including any relevant information on measures recommended to manage risks to human, animal or plant health, to safety or to the environment;
- i) instructions for intended use, including application rates, timing and frequency, and target plants or mushrooms;
- j) pH;
- k) electrical conductivity given as mS/m, except for mineral wool;
- l) a statement about the stability of organic matter (stable or very stable);
- m) nitrogen (N) extractable by CaCl₂/DTPA (calcium chloride/diethylenetriaminepentaacetic acid; ‘CAT-soluble’), if above 150 mg/l;
- n) phosphorus pentoxide (P₂O₅) extractable by CaCl₂/DTPA (calcium chloride/diethylenetriaminepentaacetic acid; ‘CAT-soluble’), if above 20 mg/l;
- o) potassium oxide (K₂O) extractable by CaCl₂/DTPA (calcium chloride/diethylenetriaminepentaacetic acid; ‘CAT-soluble’), if above 150 mg/l;
- p) Chromium (total), quantified as set in criterion 4.1(b), if above 200 mg/kg DM;
- q) a statement about the professional horticultural application, in the case of mineral growing media.

Assessment and verification

The applicant shall declare that the product complies with this criterion and provide the competent body with the text of the user information written on the packaging or on accompanying fact sheets.

Criterion 8 – Information appearing on the EU Ecolabel

If the optional label with text box is used, it shall contain the following three statements:

- promotes the recycling of materials;
- promotes the use of materials produced in a more sustainable manner, thus reducing environmental degradation.

For soil improvers, the additional information shall be included:

- contributes to reducing soil and water pollution.

The applicant shall follow the instructions on how to properly use the EU Ecolabel logo provided in the EU Ecolabel Logo Guidelines:

<https://ec.europa.eu/environment/ecolabel/>

Assessment and verification

The applicant shall provide a declaration of compliance with this criterion, supported by a high resolution image of the product packaging that clearly shows the label, the registration/licence number and, where relevant, the statements that can be displayed together with the label

Appendix 1**Sampling and test frequency for the application year**

Type of plant	Criterion	Annual input / output	Test frequency
Type 1: Waste/animal – by-product treatment plants	4.1 – Limits for heavy metals	Input (t) ≤ 3 000	1 every 1000 tonnes input material rounded to the next integer
	4.5 – Microbiological criteria		
	5.1 – Stability	3 000 < input (t) < 20 000	4 (one sample every season)
	5.2 – Macroscopic impurities		
	5.3 – Organic matter and dry matter in soil improvers	Input (t) ≥ 20 000	number of analyses per year = amount of annual input material (in tonnes)/10 000 tonne + 1
	5.4 – Viable seeds and plant propagules		
	5.5 – Plant response		
	6 – Growing media features		
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Input (t) ≤ 3 000	1
		3 001 < input (t) < 10 000	2
		10 001 < input (t) < 20 000	3
		20 001 < input (t) < 40 000	4
		40 001 < input (t) < 60 000	5
60 001 < input (t) < 80 000		6	
80 001 < input (t) < 100 000		7	
100 001 < input (t) < 120 000		8	
120 001 < input (t) < 140 000		9	
140 001 < input (t) < 160 000		10	
160 001 < input (t) < 180 000	11		
Input (t) ≥ 180 000	12		
Type 2: Product	4.1 – Limits for heavy metals 4.5 – Microbiological criteria	Output (m ³) ≤ 5 000	Representative combined samples from 2 different batches in accordance with EN 12579 ¹⁹

¹⁹ EN 12579 Soil improvers and growing media – Sampling.

Type of plant	Criterion	Annual input / output	Test frequency
manufacture plants using materials derived from waste/animal by-product, except those that are waste treatment plants	5.1 – Stability 5.2 – Macroscopic impurities 5.3 – Organic matter and dry matter in soil improvers 5.4 – Viable seeds and plant propagules 5.5 – Plant response 6 – Growing media features	Output (m ³) > 5 000	Representative combined samples from 4 different batches in accordance with EN 12579
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Output (m ³) ≤ 5 000	Representative combined samples from 1 different batch in accordance with EN 12579
		Output (m ³) > 5 000	Representative combined samples from 2 different batches EN 12579
Type 3: Product manufacture plants NOT using materials derived from waste/animal by-product	4.1 – Limits for heavy metals 4.5 – Microbiological criteria	Output (m ³) ≤ 5 000	Representative combined samples from 1 batch in accordance with EN 12579
	5.1 – Stability 5.2 – Macroscopic impurities 5.3 – Organic matter and dry matter in soil improvers 5.4 – Viable seeds and plant propagules 5.5 – Plant response 6 – Growing media features	Output (m ³) > 5 000	Representative combined samples from 2 different batches in accordance with EN 12579
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Regardless of the input/output	Representative combined samples from 1 batch in accordance with EN 12579

Appendix 2
Sampling and test frequency for the following years

Type of plant	Criteria	Annual input / output	Test frequency
Type 1: Waste/animal by-product treatment plants	4.1 – Limits for heavy metals 4.5 – Pathogens 5.1 – Stability 5.2 – Macroscopic impurities 5.3 – Organic matter and dry matter in soil improvers 5.4 – Viable seeds and plant propagules 5.5 – Plant response 6 – Growing media features	Input (t) ≤ 1000	1
		Input (t) > 1000	number of analyses per year = amount of annual input material (in tonnes)/10 000 tonne + 1 Minimum 2 and maximum 12
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Input (t) ≤ 10 000	0.25 (once every 4 years)
		10 001 < input (t) < 25 000	0.5 (once every 2 years)
		25 001 < input (t) < 50 000	1
		50 001 < input (t) < 100 000	2
		100 001 < input (t) < 150 000	3
		150 001 < input (t) < 200 000	4
		200 001 < input (t) < 250 000	5
		250 001 < input (t) < 300 000	6
		300 001 < input (t) < 350 000	7
		350 001 < input (t) < 400 000	8
		400 001 < input (t) < 450 000	9
		450 001 < input (t) < 500 000	10
		500 001 < input (t) < 550 000	11
Input (t) ≥ 550 000	12		
Type 2:	4.1 – Limits for heavy metals	Output (m ³) ≤ 5 000	Representative combined samples from 1

Type of plant	Criteria	Annual input / output	Test frequency
Product manufacture plants using materials derived from waste/animal by-product, except those that are waste treatment plants	4.5 – Pathogens 5.1 – Stability 5.2 – Macroscopic impurities 5.3 – Organic matter and dry matter in soil improvers 5.4 – Viable seeds and plant propagules 5.5 – Plant response 6 – Growing media features	Output (m ³) > 5 000	different batch in accordance with EN 12579 Representative combined samples from 2 different batches in accordance with EN 12579
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Output (m ³) ≤ 15000	Representative combined samples from 1 batch in accordance with EN 12579, once every 4 years
		15000 < Output (m ³) < 40 000	Representative combined samples from 1 batch in accordance with EN 12579, every two years
		Output (m ³) ≥ 40 000	Representative combined samples from 1 batch in accordance with EN 12579, every year
Type 3: Product manufacture plants NOT using materials derived from waste/animal by-product	4.1 – Limits for heavy metals 4.5 – Pathogens 5.1 – Stability 5.2 – Macroscopic impurities 5.3 – Organic matter and dry matter in soil improvers 5.4 – Viable seeds and plant propagules 5.5 – Plant response 6 – Growing media features	Regardless of the input/output	Representative combined samples from 1 batch in accordance with EN 12579
	4.2 – Limits for polycyclic aromatic hydrocarbons (PAHs)	Regardless of the input/output	Representative combined samples from 1 batch in accordance with EN 12579, once every 4 years