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Delegations will find attached document D038860/02 - Annex.

Encl.: D038860/02 - Annex

EN

ANNEX

FRAMEWORK

EU ECOLABEL CRITERIA

Criteria for awarding the EU Ecolabel to growing media, soil improvers and mulch:

Criterion 1 - Constituents

Criterion 2 - Organic constituents

Criterion 3 - Mineral growing media and mineral constituents

 Criterion 3.1 - Energy consumption and CO₂ emissions

 Criterion 3.2 - Sources of mineral extraction

 Criterion 3.3 - Mineral growing media use and after use

Criterion 4 - Recycled/recovered and organic materials in growing media

Criterion 5 - Limitation of hazardous substances

 Criterion 5.1 - Heavy metals

 Criterion 5.2 - Polycyclic Aromatic Hydrocarbons

 Criterion 5.3 - Hazardous substances and mixtures

 Criterion 5.4 - Substances listed in accordance with Article 59(1) of Regulation (EC)
 No 1907/2006

 Criterion 5.5 Limits for E. coli and Salmonella spp

Criterion 6 - Stability

Criterion 7 - Physical contaminants

Criterion 8 - Organic matter and dry matter

Criterion 9 - Viable weed seeds and plant propagules

Criterion 10 - Plant response

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Criterion 11 - Growing media features

Criterion 12 - Provision of information

Criterion 13 - Information appearing on the EU Ecolabel

Table 1- Applicability of the different criteria to each type of product covered by the scope

Table 1. Applicability of the different criteria to each type of product covered by the scope

Criterion	Growing media	Soil improvers	Mulch
Criterion 1 - Constituents	X	X	X
Criterion 2 - Organic constituents	X	X	X
Criterion 3.1. - Mineral growing media and mineral constituents: Energy consumption and CO ₂ emissions	X		
Criterion 3.2 - Mineral growing media and mineral constituents: Sources of mineral extraction	X	X	X
Criterion 3.3 - Mineral growing media and mineral constituents: Mineral growing media use and after use	X		
Criterion 4 - Recycled/recovered and organic materials in growing media	X		
Criterion 5 - Limitation of hazardous substances			
Criterion 5.1 - Heavy metals	X	X	X
Criterion 5.2 - Polycyclic Aromatic Hydrocarbons	X	X	X
Criterion 5.3 - Hazardous substances and mixtures	X	X	X
Criterion 5.4 - Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006	X	X	X
Criterion 5.5 - Limits for E. coli and Salmonella spp	X	X	X
Criterion 6 - Stability	X	X	X
Criterion 7 - Physical contaminants	X	X	X
Criterion 8 - Organic matter and dry matter		X	X
Criterion 9 - Viable weed seeds and plant propagules	X	X	
Criterion 10 - Plant response	X	X	
Criterion 11 - Growing media features	X		
Criterion 12 - Provision of information	X	X	X

Criterion 13 - Information appearing on the EU Ecolabel	x	x	x
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ASSESSMENT AND VERIFICATION REQUIREMENTS

The specific assessment and verification requirements are indicated within 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 which are issued by bodies accredited according to the relevant harmonised standard for testing and calibration laboratories and verifications by bodies that are accredited according to the relevant harmonised standard for bodies certifying products, processes and services.

Where appropriate, test 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.

As pre-requisite, the product must meet all respective legal requirements of the country (countries) in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

The sampling shall be carried out according to EN 12579 (Soil improvers and growing media. Sampling). Samples shall be prepared according to 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).

For the application year, the sampling and test frequency shall fulfil the requirements set in Appendix 1. For the following years, the sampling and test frequency of final products shall fulfil the requirements set 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.
- Type 3: Product manufacture plants not using materials derived from waste or from animal by-products

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 their waste/animal by-product-derived materials' suppliers comply with the EU Ecolabel criteria for 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 suppliers with the EU Ecolabel criteria. The Competent Body may recognize the sampling and testing frequencies within the national or regional legislation and standards as valid to ensure the compliance with the EU Ecolabel criteria of the suppliers of waste or animal by-products derived materials. In case when a product constitutes or contains material of animal origin reference shall be done to microbiological standards and animal and public health controls set out in Regulation (EU) No 142/2011¹.

¹ Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 (OJ L 54, 26.02.2011, p. 1).

Criterion 1 – Constituents

This criterion applies to growing media, soil improvers and mulch.

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

Assessment and verification:

The applicant shall provide the Competent Body with a list of constituents of the product.

Criterion 2 – Organic constituents

This criterion applies to growing media, soil improvers and mulch.

Criterion 2.1

A final product shall not contain peat.

Criterion 2.2

1) The following materials are allowed as organic constituents of a final product:

- Materials derived from the recycling of bio-waste from separate collection, as defined in Article 3 of Directive 2008/98/EC of the European Parliament and of the Council²;
- Materials derived from category 2 and 3 animal by-products as laid down in Article 32 of Regulation (EC) No 1069/2009 of the European Parliament and of the Council³ and technical standards which are laid down by implementing Regulation (EU) 142/2011;
- Materials derived from faecal matter, straw and other natural non-hazardous agricultural or forestry material as defined in Article 2.1(f) of Directive 2008/98/EC;
- Materials derived from any other biomass by-products, as defined in article 5 of Directive 2008/98/EC, that are not mentioned above, subject to the provisions of 2) and sub-criterion 2.3;

² 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).

³ 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 (OJ L 300, 14.11.2009, p. 1).

- Materials derived from recycling or recovery of any other biomass waste not mentioned above, subject to the provisions of 2) and sub-criterion 2.3.

2) The following materials are not allowed as organic constituents of a final product:

- Materials totally or partially derived from the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment;
- Materials totally or partially derived from sludges derived from municipal sewage water treatment and from sludges derived from the paper industry;
- Materials totally or partially derived from sludges other than those allowed in Criterion 2.3.;
- Materials totally or partially derived from category 1 animal by-products according to Regulation (EC) No 1069/2009.

Criterion 2.3

Materials derived from recycling or recovery of sludges are only allowed if the sludges comply with the following requirements:

- (a). They are identified as one of the following types of waste according to the European List of Wastes, as defined by Decision 2000/532/EC⁴ presented in Table 2:

Table 2. Sludges allowed and their codes according to the European List of Wastes

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

⁴ 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).

	confectionery industry;
0207 05	sludges from on-site effluent treatment in the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa).

- (b). They are single-source separated, meaning that there has been no mixing with effluents or sludges outside a specific production process.

Assessment and verification:

The applicant shall provide the Competent Body with the information about the origin of each organic constituent of the product and a declaration of compliance with the above requirement.

Criterion 3 – Mineral growing media and mineral constituents

Criterion 3.1 Energy consumption and CO₂ emissions

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
- CO₂ emissions / product ≤ 0.8 t CO₂/t product

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

$$\text{ratio} \frac{\text{Energy}}{\text{Product}} = \frac{1}{\sum_{i=1}^n \text{Production}_i} \cdot \sum_{i=1}^n \left(F + 2.5 \cdot El_{\text{grid}} + \left(\frac{H_{\text{cog}}}{\text{Ref } H\eta} + \frac{El_{\text{cog}}}{\text{Ref } E\eta} \right) \cdot (1 - \text{PES}_{\text{cog}}) \right)_i$$

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 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
- $\text{Ref } H\eta$ and $\text{Ref } E\eta$ are the reference efficiencies for the separate production of heat and electricity as defined in the Directive 2012/27/EU⁵ of the European Parliament

⁵ 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).

and of the Council and calculated according to the Commission Implementing Decision 2011/877/EU⁶

- 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/product shall be calculated as an annual average as follows:

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

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
- $Direct CO_2$ is the CO₂ emissions as defined in Commission Regulation (EU) No 601/2012⁷, in the year i
- $Indirect CO_2$ is the indirect CO₂ emissions due to final energy consumption in the year i , and shall be calculated as:

$$\text{Indirect CO}_2 \text{ emission} = FE_{grid} \cdot El_{grid} + FE_{fuel cog} \cdot \left(\frac{H_{cog}}{\text{Ref } H\eta} + \frac{El_{cog}}{\text{Ref } E\eta} \right) \cdot (1 - PES_{cog})$$

Where

FE_{grid} is the EU average carbon intensity of the electricity grid, according to MEErP⁸ methodology (0.384 tCO₂/MWh = 0.107 tCO₂/GJ_e)

$FE_{fuel cog}$ is the CO₂ emission factor of the fuel consumed in the cogeneration plant

The direct CO₂ emissions shall be monitored according to Commission Regulation (EU) No 601/2012.

The period to calculate the ratios energy consumption/product and CO₂ emissions/product shall be the last 5 years before the application. If the operation period of the plant is less than

⁶ Commission Implementing Decision 2011/877/EU of 19 December 2011 establishing harmonised efficiency reference values for separate production of electricity and heat in application of Directive 2004/8/EC of the European Parliament and of the Council and repealing Commission Decision 2007/74/EC (OJ L 343, 23.12.2011, p. 91).

⁷ Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 181, 12. 7.2012, p. 30).

⁸ Methodology for the Ecodesign of Energy-related Products (<http://www.meerp.eu/>).

5 years at the date of application, the ratio shall be calculated as an annual average of that operation period, which shall be at least one year.

Assessment and verification:

The applicant shall provide the Competent Body with a declaration which 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*
- *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 according to Commission Regulation (EU) No 601/2012, for each year of the period to calculate the average*

- *Verification report finding the annual emissions report satisfactory according to Commission Regulation (EU) No 600/2012⁹, 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*
- *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*

Criterion 3.2 Sources of mineral extraction

This criterion applies to growing media, soil improvers and mulch.

Extracted minerals can be used as constituents of the final product provided that:

- 1) (Within the EU): If they are extracted from Natura 2000 network areas, composed of Special Protection Areas under Directive 2009/147/EC on the conservation of wild birds, and Special Areas of Conservation under Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora, extraction activities have been assessed and authorised in accordance with the provisions of Article 6 of Directive 92/43/EEC and taking into account the EC Guidance document on non-energy mineral extraction and Natura 2000¹⁰.
- 2) (Outside the EU): If they are extracted from protected areas designated as such under the national legislation of the sourcing / exporting countries, the extraction activities have been assessed and authorised in accordance with provisions that provide assurances equivalent to those under (1).

Assessment and verification

In case mineral extraction activities have been carried out in Natura 2000 network areas (in the EU) or protected areas designated as such under the national legislation of the sourcing / exporting countries (outside the EU), 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.

⁹ Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emission reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 181, 12. 7.2012, p. 1).

¹⁰ EC Guidance on undertaking new non-energy extractive activities in accordance with Natura 2000 requirements (http://ec.europa.eu/environment/nature/natura2000/management/docs/nee_n2000_guidance.pdf).

Criterion 3.3 Mineral growing media use and after use

This criterion is applicable to mineral growing media only.

The mineral growing media shall only be offered for use for professional horticultural applications.

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% v/v of the applicant's sales of the product across the European Union.

Assessment and verification:

The applicant shall provide the Competent Body with a declaration that the mineral growing media is 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 service and the results of the option(s) 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 case of new entrants, an estimation of the annual overview of the total sales volume of growing media in the European Union 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 license is awarded.*

Criterion 4 – Recycled/recovered and organic materials in growing media

This criterion applies to growing media only.

Growing media products shall contain a minimum percentage of recycled/recovered content or organic content, as follows:

- (a). The growing medium shall contain a minimum of 30% of organic constituents (expressed as volume of organic constituent per total volume of the final product), or

- (b).The mineral growing medium shall contain mineral constituents manufactured from a process using at least 30% of recycled 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 the case (a): volume of organic constituents declared in Criterion 1 per total volume of the final product, or;*
- *For the case (b): dry weight of recycled/recovered materials per total dry weight of the input materials.*

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

- *Identification of raw material inputs, dry weight of the raw material input per total dry weight of the input materials, and origin, for each raw material input, and*
- *Identification of recycled/recovered material inputs, dry weight of recycled/recovered material input per total dry weight of the input materials and origin, for each recycled/recovered material input.*

Criterion 5 – Limitation of hazardous substances

Criterion 5.1 - Limits for heavy metals

This criterion applies to growing media, soil improvers and mulch.

- (a). Soil improvers, mulch and organic constituents of growing media

For soil improvers, mulch and organic constituents of growing media, the content of the following elements in the final product or constituent shall not exceed the values shown in Table 3, measured in terms of dry weight (DW) of the product.

Table 3. Heavy metals limits for soil improvers, mulch and organic constituents of growing media

Heavy metal	Maximum content in the product (mg/kg DW)
Cadmium (Cd)	1

Chromium total (Cr)	100
Copper (Cu)	100
Mercury (Hg)	1
Nickel (Ni)	50
Lead (Pb)	100
Zinc (Zn)	300

(b). Growing media

For growing media, including mineral growing media, the content of the following elements in the final product shall not exceed the values shown in Table 4, measured in terms of dry weight of the product.

Table 4. Heavy metal limits for growing media, including mineral growing media

Heavy metal	Maximum content in the product (mg/kg DW)
Cadmium (Cd)	3
Chromium total (Cr)	150
Copper (Cu)	100
Mercury (Hg)	1
Nickel (Ni)	90
Lead (Pb)	150
Zinc (Zn)	300

Assessment and verification:

The applicant shall provide the Competent Body with test reports conducted in accordance with the testing procedure indicated in the respective EN standards presented in Table 5. In

the case of organic constituents of growing media, the test reports may be provided by the suppliers.

Table 5. Standard methods of extraction and measurement of heavy metals

Heavy metals	Method of measurement	Method of extraction
Cadmium (Cd)	EN 13650	For soil improvers, mulch, organic constituents of growing media and growing media, except mineral growing media: EN 13650 Soil improvers and growing media - Extraction of aqua regia soluble elements
Chromium total (Cr)	EN 13650	
Copper (Cu)	EN 13650	
Mercury (Hg)	EN 16175 ¹¹	
Nickel (Ni)	EN 13650	
Lead (Pb)	EN 13650	
Zinc (Zn)	EN 13650	For mineral growing media: EN 13651 Soil improvers and growing media - Extraction of calcium chloride/DTPA (CAT) soluble nutrients and elements

Criterion 5.2 - Limits for Polycyclic Aromatic Hydrocarbons (PAH)

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

The content of the following polycyclic aromatic hydrocarbons in the final product shall not exceed the value shown in Table 6, measured in terms of dry weight of the product.

Table 6. Limit for PAH

Pollutant	Maximum content in the product (mg/kg DW)
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

¹¹ EN 16175 Sludge, treated biowaste and soil - Determination of mercury. Part 1: Cold-vapour atomic absorption spectrometry (CV-AAS) and Part 2: Cold-vapour atomic fluorescence spectrometry (CV-AFS)

Assessment and verification:

The applicant shall provide the Competent Body with test reports conducted in accordance with the testing procedure indicated in CEN/TS 16181 Sludge, treated biowaste and soil - Determination of polycyclic aromatic hydrocarbons (PAH) by gas chromatography (GC) and high performance liquid chromatography (HPLC) or equivalent

Criterion 5.3 - Hazardous substances and mixtures

This criterion applies to growing media, soil improvers and mulch.

The final product shall not be classified and labelled as being acutely toxic, a specific target organ toxicant, a respiratory or skin sensitiser, or carcinogenic, mutagenic or toxic for reproduction hazardous to the environment, in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council¹².

The product shall not contain substances or mixtures classified as toxic, hazardous to the environment, respiratory or skin sensitisers, or carcinogenic, mutagenic or toxic for reproduction in accordance with Regulation (EC) No 1272/2008 of the European Parliament and as interpreted according to the hazard statements listed in Table 7. Any intentionally added ingredient present at a concentration above 0.010% w/w (in terms of wet weight) in the product shall meet this requirement. Where stricter, the generic or specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall prevail to the cut-off limit value of 0.010% w/w (in terms of wet weight) mentioned above.

Table 7. Restricted hazard classifications and their categorisation

Acute toxicity	
Category 1 and 2	Category 3
H300 Fatal if swallowed	H301 Toxic if swallowed
H310 Fatal in contact with skin	H311 Toxic in contact with skin
H330 Fatal if inhaled	H331 Toxic if inhaled
H304 May be fatal if swallowed and	EUH070 Toxic by eye contact

¹² 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).

enters airways	
Specific target organ toxicity	
Category 1	Category 2
H370 Causes damage to organs	H371 May cause damage to organs
H372 Causes damage to organs through prolonged or repeated exposure	H373 May cause damage to organs through prolonged or repeated exposure
Respiratory and skin sensitisation	
Category 1A	Category 1B
H317: May cause allergic skin reaction	H317: May cause allergic skin reaction
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
Carcinogenic, mutagenic or toxic for reproduction	
Category 1A and 1B	Category 2
H340 May cause genetic defects	H341 Suspected of causing genetic defects
H350 May cause cancer	H351 Suspected of causing cancer
H350i May cause cancer by inhalation	
H360F May damage fertility	H361f Suspected of damaging fertility
H360D May damage the unborn child	H361d Suspected of damaging the unborn child
H360FD May damage fertility. May damage the unborn child	H361fd Suspected of damaging fertility. Suspected of damaging the unborn child
H360Fd May damage fertility. Suspected of damaging the unborn child	H362 May cause harm to breast fed children
H360Df May damage the unborn child. Suspected of damaging	

fertility	
Hazardous to the aquatic environment	
Category 1 and 2	Category 3 and 4
H400 Very toxic to aquatic life	H412 Harmful to aquatic life with long-lasting effects
H410 Very toxic to aquatic life with long-lasting effects	H413 May cause long-lasting effects to aquatic life
H411 Toxic to aquatic life with long-lasting effects	
Hazardous to the ozone layer	
H420 Hazardous to the ozone layer	

The most recent classification rules adopted by the Union shall take precedence over the listed hazard classifications. In accordance with article 15 of Regulation (EC) No 1272/2008, applicants shall therefore ensure that any classifications are based on the most recent rules on classification, labelling and packaging of substances and mixtures

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

Substances or mixtures which change their properties through processing and thus become no longer bioavailable or undergo chemical modification in a way that removes the previously identified hazard are exempted from criterion 5.3.

This criterion does not apply to those final products composed by:

- Materials not included in the scope of the Regulation (EC) No 1907/2006¹³ of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), according its Article 2(2).

¹³ 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) (OJ L 396, 30.12.2006, p. 1)

- Substances covered by Article 2(7)(b) of the Regulation (EC) No 1907/2006 which sets out criteria for exempting substances within Annex V of 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 substance present at a concentration above 0.010% w/w (in terms of wet weight).

Assessment and verification:

The applicant shall screen the presence of substances and mixtures that may be classified with the hazard statements reported in this criterion. The applicant shall provide the Competent Body with a declaration of compliance with this criterion for the product.

That declaration shall include related documentation, such as declarations of compliance signed by the suppliers, on the non-classification of the substances, mixtures or materials with any of the hazard classes associated to the hazard statements referred in Table 7 in accordance with Regulation (EC) No 1272/2008, as far as this can be determined, as a minimum, from the information meeting the requirements listed in Annex VII to Regulation (EC) No 1907/2006.

The information provided shall relate to the forms or physical states of the substances or mixtures as used in the final product.

The following technical information shall be provided to support the declaration of classification or non-classification for each substance and mixture:

- i. for substances that have not been registered under Regulation (EC) No 1907/2006 or which do not yet have a harmonised CLP classification: information meeting the requirements listed in Annex VII to that Regulation;*
- ii. for substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: information based on the REACH registration dossier confirming the non-classified status of the substance;*
- iii. for substances that have a harmonised classification or are self-classified: safety data sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification in accordance with Annex II to Regulation (EC) No 1907/2006;*
- iv. in the case of mixtures: safety data sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification in accordance with Annex II to Regulation (EC) No 1907/2006.*

Safety data sheets shall be provided for the materials composing the final product and for substances and mixtures used in the formulation and treatment of the materials remaining in

the final product at a concentration above a cut-off limit of 0.010 % w/w (in terms of wet weight) unless a lower generic or specific concentration limit applies in accordance with the Article 10 of Regulation (EC) No 1272/2008.

Safety data sheets shall be completed in accordance with the guidance set out in sections 10, 11 and 12 of Annex II to Regulation (EC) No 1907/2006 (requirements for the compilation of safety data sheets). Incomplete safety data sheets shall require supplementing with information from declarations by chemical suppliers.

Information on intrinsic properties of substances may be generated by means other than tests, for instance through the use of alternative methods such as in vitro methods, by quantitative structure activity models or by the use of grouping or read-across in accordance with Annex XI to Regulation (EC) No 1907/2006.

The sharing of relevant data across the supply chain is strongly encouraged.

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

- (a). Certificate awarded for the right to use the European Certification Board for Mineral Wool Products trademark to demonstrate compliance with the Note Q within the Regulation (EC) No 1272/2008.*
- (b). Test report according to ISO 14184-1 Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde*

Criterion 5.4 - Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006

The final product shall not contain any intentionally added substances of very high concern and included in the list provided for in Article 59(1) of Regulation (EC) No 1907/2006, present in the final product in concentrations > 0.010 % in terms of wet weight.

Assessment and verification:

Reference to the latest list of substances of very high concern shall be made on the date of application. The applicant shall provide a declaration of compliance with criterion 5.4, together with related documentation, including declarations of compliance signed by the material suppliers and copies of relevant SDS for substances or mixtures in accordance with Annex II to Regulation (EC) No 1907/2006 for substances or mixtures. Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006 for substances and mixtures.

Criterion 5.5 – Limits for E. coli and Salmonella spp

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

The content of primary pathogens in the final product shall not exceed the levels set in Table 8.

Table 8. Limit values for E. coli and Salmonella spp

Pathogen	Limit
E. coli	1000 CFU/g fresh weight
Salmonella spp	absent in 25g fresh weight

CFU = colony-forming units

Assessment and verification:

The applicant shall provide the Competent Body with test reports conducted in accordance with the testing procedure indicated in Table 9.

Table 9. Standard test method for E. coli and Salmonella spp

Parameter	Test method
E. coli	CEN/TR 16193 Sludge, treated biowaste and soil. Detection and enumeration of Escherichia coli or equivalent
Salmonella spp	ISO 6579 Microbiology of food and animal feeding stuffs - Horizontal method for the detection of Salmonella spp.

Criterion 6 - Stability

This criterion applies to growing media, soil improvers and mulch, with the exception of mulch totally composed of lignocellulosic constituents and mineral growing media.

Soil improvers and mulch for non-professional applications and growing media for all applications shall meet one of the requirements presented in Table 10.

Table 10. Stability requirements of soil improvers and mulch 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 and mulch for professional applications shall meet one of the requirements presented in Table 11.

Table 11. Stability requirements of soil improvers and mulch 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 test reports conducted in accordance with the testing procedure indicated in Table 12.

Table 12. Standard test method for stability

Parameter	Test method
Respirometric index	EN 16087-1 Soil improvers and growing media - Determination of the aerobic biological activity. Oxygen uptake rate (OUR)
Rottegrad	EN 16087-2 Soil improvers and growing media. Determination of the aerobic biological activity. Self heating test for compost

Criterion 7 - Physical Contaminants

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

The content of glass, metal and plastic with mesh size of > 2 mm in the final product shall not exceed 0.5 %, measured in terms of dry weight.

Assessment and verification:

The applicant shall provide the Competent Body with test reports conducted in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16202 (Sludge, treated biowaste and soil - Determination of impurities and stones), or another equivalent testing procedure authorised by the Competent Body.

Criterion 8 - Organic matter and dry matter

This criterion applies to soil improvers and mulch.

The organic matter as loss on ignition of the final product shall be at least 15% dry weight (% DW).

The dry matter content of the final product shall be at least 25% of the fresh weight (% FW).

Assessment and verification:

The applicant shall provide the Competent Body with test reports conducted in accordance with the testing procedure presented in Table 13.

Table 13. Standard test methods for Dry matter and Organic matter

<i>Parameter</i>	<i>Test method</i>
Dry matter (% FW)	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
Organic matter as Loss on Ignition (% DM)	EN 13039 Soil improvers and growing media. Determination of organic matter content and ash

Criterion 9 - Viable weed seeds and plant propagules

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

Final products shall not contain more than two units of viable weed seeds and plant propagules per litre.

Assessment and verification:

The applicant shall provide the Competent Body with a test report in accordance with the testing procedure indicated in the Technical Specification CEN/TS 16201 (Sludge, treated biowaste and soil - Determination of viable plant seeds and propagules), or another equivalent testing procedure authorised by the Competent Body.

Criterion 10 - Plant response

This criterion applies to growing media and soil improvers.

Final 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 (Soil improvers and growing media - Determination of plant response - Part 1: Pot growth test with Chinese cabbage).

Criterion 11 - Growing media features

This criterion only applies to growing media.

Criterion 11.1 - Electrical conductivity

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

Assessment and verification:

The applicant shall provide the Competent Body with a test report conducted in accordance with the testing procedure indicated in EN 13038 (Soil improvers and growing media - Determination of electrical conductivity).

Criterion 11.2 - pH

The pH of the final product shall be in the range 4 - 7.

Assessment and verification:

The applicant shall provide the Competent Body with a test report conducted in accordance with the testing procedure indicated in EN 13037 (Soil improvers and growing media - Determination of pH).

Criterion 11.3 - Sodium content

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

Assessment and verification:

The applicant shall provide the Competent Body with a test report conducted in accordance with the testing procedure indicated in EN 13652 (Soil improvers and growing media - Extraction of water soluble nutrients and elements).

Criterion 11.4 - Chloride content

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

Assessment and verification:

The applicant shall provide the Competent Body with a test report conducted in accordance with the testing procedure indicated in EN 13652 (Soil improvers and growing media - Extraction of water soluble nutrients and elements).

Criterion 12 - Provision of information

This criterion applies to growing media, soil improvers and mulch.

The following information shall be provided with the product either on the packaging or in accompanying fact sheets.

Criterion 12.1 - 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 (in weight);
- e) Range of moisture content;
- f) The main materials (those over 5% by weight) from which the product has been manufactured;
- g) The recommended conditions of storage and the recommended 'use by' date;
- h) Guidelines for safe handling and use;
- i) A description of the purpose for which the product is intended and any limitations on use, including a statement about the suitability of the product for particular plant groups (e.g. calcifuges or calcicoles);
- j) pH (reference of the test method used);
- k) Organic carbon content (%), total nitrogen content (%) and inorganic nitrogen content (%) (reference to the test method used);
- l) Carbon/Nitrogen ratio;
- m) Total phosphorus (%) and total potassium (%) (reference to the test method used) ;
- n) For products for non-professional use, a statement about the stability of organic matter (stable or very stable);
- o) A statement on recommended methods of use;
- p) In non-professional applications: recommended rate of application expressed in kilograms of product per unit surface area (m²) per annum.

Criterion 12.2 - 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 (in volume or number of slabs, in case of mineral wool, specifying the dimensions of the slab);
- e) Range of moisture content;
- f) The main materials (those over 5% by volume) from which the product has been manufactured;
- g) The recommended conditions of storage and the recommended 'use by' date;
- h) Guidelines for safe handling and use;
- i) A description of the purpose for which the product is intended and any limitations on use, including a statement about the suitability of the product for particular plant groups (e.g. calcifuges or calcicoles);
- j) pH (*EN 13037*);
- k) Electrical Conductivity (1:5 extraction);
- l) Germination inhibition (*EN 16086-1*);
- m) Growth inhibition (*EN 16086-1*);
- n) A statement about the stability of organic matter (stable or very stable);
- o) A statement on recommended methods of use;
- p) For mineral growing media, a statement about the professional horticultural application.

Criterion 12.3 - Mulch

- a) The name and address of the body responsible for marketing;
- b) A descriptor identifying the product by type, including the wording "MULCH";
- c) A batch identification code;
- d) The quantity (in volume);
- e) Range of moisture content;
- f) The main materials (those over 5% by volume) from which the product has been manufactured;
- g) Guidelines for safe handling and use;

- h) A description of the purpose for which the product is intended and any limitations on use, including a statement about the suitability of the product for particular plant groups (e.g. calcifuges or calcicoles);
- i) pH (reference of the test method used);
- j) A statement about the stability of organic matter (stable or very stable), where applicable, for non-professional uses;
- k) A statement on recommended methods of use;
- l) In non-professional applications: recommended rate of application expressed in mm.

Assessment and verification:

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

Criterion 13 – Information appearing on the EU Ecolabel

The optional label with text box shall contain the following text:

- promotes the recycling of materials
- promotes the use of renewable and recycled materials

For soil improvers and mulch, the additional information shall be included:

- reduces soil and water pollution, by limiting heavy metals concentrations

The guidelines for the use of the optional label with the text box can be found in the ‘Guidelines for the use of the EU Ecolabel logo’ on the website:

http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

Assessment and verification:

The applicant shall provide the Competent Body with a sample of the product packaging showing the label, together with a declaration of compliance with this criterion.

Appendix 1
Sampling and test frequency for the application year

Type of plant	Criterion	Annual input / output	Test frequency
Type 1: Treatment plants for waste or for animal by-products	5.1 – Limits for heavy metals 5.5 - Limits for E. coli and Salmonella spp 6 - Stability 7 - Physical contaminants 8 - Organic matter and dry matter 9 - Viable seeds and plant propagules 10 - Plant response 11 - Growing media features	Input (t) ≤ 3000	1 every 1000 tonnes input material rounded to the next integer
	3000 < input (t) ≤ 20000	4 (one sample every season)	
	Input (t) > 20000	number of analyses per year = amount of annual input material (in tonnes)/10000 tonne + 1 Minimum 4 and maximum 12	
	Input (t) ≤ 3000	1	
	3000 < input (t) ≤ 10000	2	
	10000 < input (t) ≤ - 20000	3	
	20000 < input (t) ≤ 40000	4	
	40000 < input (t) ≤ 60000	5	
	60000 < input (t) ≤ 80000	6	
	80000 < input (t) ≤ 100000	7	
	100000 < input (t) ≤ 120000	8	
5.2 - PAH			

			120000 < input (t) ≤ 140000	9
			140000 < input (t) ≤ 160000	10
			160000 < input (t) ≤ 180000	11
			Input (t) > 180000	12
Type 2: Product manufacture plants using materials from Type 1 plants	5.1 – Limits for heavy metals	5.1 – Limits for heavy metals 5.5 - Limits for E. coli and Salmonella spp 6 - Stability 7 - Physical contaminants 8 - Organic matter and dry matter 9 - Viable seeds and plant propagules 10 - Plant response 11 - Growing media features	Output (m ³) ≤ 5000	Representative combined samples from 2 batches according EN 12579 ¹⁴
			Output (m ³) > 5000	Representative combined samples from 4 batches according EN 12579
			Output (m ³) ≤ 5000	Representative combined sample(s) from 1 batch according EN 12579
			Output (m ³) > 5000	Representative combined samples from 2 batches according EN 12579
Type 3: Product manufacture	5.2 - PAH	5.1 – Limits for heavy metals 5.5 - Limits for E. coli and Salmonella spp 6 - Stability	Output (m ³) ≤ 5000	Representative combined sample(s) from 1 batch according EN 12579
			Output (m ³) > 5000	Representative combined samples from 1 batch according EN 12579

¹⁴ EN 12579 Soil improvers and growing media. Sampling

plants NOT using materials derived from waste or from animal by-products	7 - Physical contaminants 8 - Organic matter and dry matter 9 - Viable seeds and plant propagules 10 - Plant response 11 - Growing media features 5.2 - PAH	Output (m ³) > 5000	Representative combined samples from 2 batches according EN 12579
		Regardless the input / output	Representative combined sample(s) from 1 batch according EN 12579

Appendix 2
Sampling and test frequency for the following years

Type of plant	Criteria	Annual input / output	Test frequency	
Type 1: Treatment plants for waste or for animal by-products	5.1 – Limits for heavy metals	Input (t) ≤ 1000	1	
	5.5 - Limits for E. coli and Salmonella spp			
	6 - Stability	Input (t) > 1000	number of analyses per year = amount of annual input material (in tonnes)/10000 tonnes + 1 Minimum 2 and maximum 12	
	7 - Physical contaminants			
	8 - Organic matter and dry matter			
	9 - Viable seeds and plant propagules			
	10 - Plant response			
	11 - Growing media features	Input (t) ≤ 10000	0.25 (once per 4 years)	
	5.2 - PAH		10000 < input (t) ≤ 25000	0.5 (once per 2 years)
			25000 < input (t) ≤ 50000	1
			50000 < input (t) ≤ 100000	2
		100000 < input (t) ≤ 150000	3	
		150000 < input (t) ≤ 200000	4	
		200000 < input (t) ≤ 250000	5	
		250000 < input (t) ≤ 300000	6	
		300000 < input (t) ≤ 350000	7	
	350000 < input (t) ≤ 400000	8		

Type of plant	Criteria	Annual input / output	Test frequency
Type 2: Product manufacture using plants from materials from Type 1 plants		400000 < input (t) ≤ 4500000	9
		450000 < input (t) ≤ 5000000	10
		500000 < input (t) ≤ 5500000	11
		Input (t) > 5500000	12
	5.1 - Limits for heavy metals 5.5 - Limits for E. coli and Salmonella spp 6 - Stability 7 - Physical contaminants 8 - Organic matter and dry matter 9 - Viable seeds and plant propagules 10 - Plant response 11 - Growing media features	Output (m ³) ≤ 5000	Representative combined sample(s) from 1 batch according EN 12579
		Output (m ³) > 5000	Representative combined samples from 2 batches according EN 12579
		Output (m ³) ≤ 15000	Representative combined sample(s) from 1 batch according EN 12579, once each four years
		15000 < Output (m ³) ≤ 40000	Representative combined sample(s) from 1 batch according EN 12579, each two years
		Output (m ³) > 40000	Representative combined sample(s) from 1 batch according EN 12579, each year
	5.2 - PAH		

Type of plant	Criteria	Annual input / output	Test frequency
Type 3: Product manufacture plants NOT using materials derived from waste or from animal by-products	5.1 - Limits for heavy metals 5.5 - Limits for E. coli and Salmonella 6 - Stability 7 - Physical contaminants 8 - Organic matter and dry matter 9 - Viable weed seeds and plant propagules 10 - Plant response 11 - Growing media features	Regardless the input / output	Representative combined sample(s) from 1 batch according EN 12579
	5.2 - PAH	Regardless the input / output	Representative combined sample(s) from 1 batch according EN 12579, once each 4 years