

**COMMISSION IMPLEMENTING REGULATION (EU) 2019/2164****of 17 December 2019****amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 <sup>(1)</sup>, and in particular Article 16(1) and (3)(a) and Article 21(2) thereof,

Whereas:

- (1) In accordance with Article 16(3)(b) of Regulation (EC) No 834/2007, several Member States have submitted dossiers on certain substances to the Commission and the other Member States, in view of their authorisation and inclusion in Annexes I, II, VI and VIII to Commission Regulation (EC) No 889/2008 <sup>(2)</sup>. Those dossiers have been examined by the Expert Group for Technical Advice on Organic Production (EGTOP) and the Commission.
- (2) In its recommendations with regard to fertilisers <sup>(3)</sup> EGTOP concluded, inter alia, that the substances 'biochar', 'mollusc waste and egg shells' and 'humic and fulvic acids' comply with the objectives and principles of organic production. Therefore, those substances should be included in Annex I to Regulation (EC) No 889/2008. EGTOP also recommended to clarify the definition of 'calcium carbonate' set out in that Annex.
- (3) In its recommendations with regard to plant protection products <sup>(4)</sup> EGTOP concluded, inter alia, that the substances 'maltodextrin', 'hydrogen peroxide', 'terpenes (eugenol, geraniol and thymol)', 'sodium chloride', 'cerevisane' and pyrethrins from other plants than *Chrysanthemum cinerariaefolium* comply with the objectives and principles of organic production. Therefore, those substances should be included in Annex II to Regulation (EC) No 889/2008. Moreover, EGTOP made recommendations for the structure of that Annex.
- (4) In its recommendations with regard to feed <sup>(5)</sup> EGTOP concluded, inter alia, that the substances 'guar gum' as a feed additive, 'sweet chestnut extract' as a sensory additive, and 'betaine anhydrous' for monogastric animals and only from natural or organic origin comply with the objectives and principles of organic production. Therefore, those substances should be included in Annex VI to Regulation (EC) No 889/2008. In that Annex, the reference to some silage additives is unclear and needs to be clarified to avoid confusion.

<sup>(1)</sup> OJ L 189, 20.7.2007, p. 1.

<sup>(2)</sup> Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control (OJ L 250, 18.9.2008, p. 1).

<sup>(3)</sup> Final report on fertilisers III [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/final-report-egtop-fertilizers-iii\\_en.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/final-report-egtop-fertilizers-iii_en.pdf)

<sup>(4)</sup> Final report on plant protection products IV [https://ec.europa.eu/info/publications/egtop-reports-organic-production\\_en](https://ec.europa.eu/info/publications/egtop-reports-organic-production_en)

<sup>(5)</sup> Final report on feed III and food V [https://ec.europa.eu/info/publications/egtop-reports-organic-production\\_en](https://ec.europa.eu/info/publications/egtop-reports-organic-production_en)

- (5) In its recommendations with regard to food <sup>(6)</sup> EGTOP concluded, inter alia, that the substances 'glycerol' as a humectant in gel capsules and surface coating in tablets, 'bentonite' as a processing aid, 'L(+)-lactic acid, and sodium hydroxide' as a processing aid for the extraction of plant proteins and 'tara gum powder' as a thickener and 'hop extract and pine rosin extract' in sugar production comply with the objectives and principles of organic production. Therefore, those substances should be included in Annex VIII to Regulation (EC) No 889/2008. Moreover, EGTOP recommended to require, for tara gum powder, lecithins, glycerol, locust bean gum, gellan gum, arabic gum, guar gum and carnauba wax, that they be produced organically. To allow for sufficient time to adapt to that new requirement, operators should be given a three-year transition period.
- (6) In Annex VIIIa to Regulation (EC) No 889/2008, some references to the names of additives are unprecise and need to be clarified to avoid confusion.
- (7) Regulation (EC) No 889/2008 should therefore be amended accordingly.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Committee on Organic Production,

HAS ADOPTED THIS REGULATION:

#### *Article 1*

Regulation (EC) No 889/2008 is amended as follows:

- (1) Annex I is replaced by the text set out in Annex I to this Regulation;
- (2) Annex II is replaced by the text set out in Annex II to this Regulation;
- (3) Annex VI is replaced by the text set out in Annex III to this Regulation;
- (4) Annex VIII is replaced by the text set out in Annex IV to this Regulation;
- (5) Annex VIIIa is replaced by the text set out in Annex V to this Regulation.

#### *Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 17 December 2019.

*For the Commission*  
*The President*  
Ursula VON DER LEYEN

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<sup>(6)</sup> Final report on food IV and final report on feed III and food V [https://ec.europa.eu/info/publications/egtop-reports-organic-production\\_en](https://ec.europa.eu/info/publications/egtop-reports-organic-production_en)

## ANNEX I

## ANNEX I

**Fertilisers, soil conditioners and nutrients referred to in Article 3(1) and Article 6d(2)**

Note:

A: authorised under Regulation (EEC) No 2092/91 and carried over by Article 16(3)(c) of Regulation (EC) No 834/2007

B: authorised under Regulation (EC) No 834/2007

| Authorisation | Name<br>Compound products or products containing only materials listed hereunder:  | Description, compositional requirements, conditions for use   |
|---------------|--|---|
| A             | Farmyard manure  | Product comprising a mixture of animal excrements and vegetable matter (animal bedding).<br>Factory farming origin forbidden  |
| A             | Dried farmyard manure and dehydrated poultry manure  | Factory farming origin forbidden  |
| A             | Composted animal excrements, including poultry manure and composted farmyard manure included                               | Factory farming origin forbidden  |
| A             | Liquid animal excrements   | Use after controlled fermentation and/or appropriate dilution<br>Factory farming origin forbidden   |
| B             | Composted or fermented mixture of household waste  | Product obtained from source separated household waste, which has been submitted to composting or to anaerobic fermentation for biogas production<br>Only vegetable and animal household waste<br>Only when produced in a closed and monitored collection system, accepted by the Member State<br>Maximum concentrations in mg/kg of dry matter:<br>cadmium: 0,7; copper: 70; nickel: 25; lead: 45; zinc: 200; mercury:<br>0,4; chromium (total): 70; chromium (VI): not detectable |
| A             | Peat   | Use limited to horticulture (market gardening, floriculture, arboriculture, nursery)  |
| A             | Mushroom culture wastes  | The initial composition of the substrate shall be limited to products of this Annex   |
| A             | Dejecta of worms (vermicompost) and insects  |   |
| A             | Guano  |   |
| A             | Composted or fermented mixture of vegetable matter   | Product obtained from mixtures of vegetable matter, which have been submitted to composting or to anaerobic fermentation for biogas production  |
| B             | Biogas digestate containing animal by-products co-digested with material of plant or animal origin as listed in this Annex | Animal by-products (including by-products of wild animals) of category 3 and digestive tract content of category 2 (categories 2 and 3 as defined in Regulation (EC) No 1069/2009 of the European Parliament and of the Council <sup>(1)</sup> ) must not be from factory farming origin.<br>The Processes have to be in accordance with Commission Regulation (EU) No 142/2011.<br>Not to be applied to edible parts of the crop   |

| Authorisation | Name<br>Compound products or products containing only materials listed hereunder:  | Description, compositional requirements, conditions for use   |
|---------------|--|---|
| B             | Products or by-products of animal origin as below:<br>Blood meal<br>Hoof meal<br>Horn meal<br>Bone meal or degelatinised bone meal<br>Fish meal<br>Meat meal<br>Feather, hair and "chiquette" meal<br>Wool<br>Fur (1)<br>Hair<br>Dairy products<br>Hydrolysed proteins (2) | (1) Maximum concentration in mg/kg of dry matter of chromium (VI): not detectable<br>(2) Not to be applied to edible parts of the crop  |
| A             | Products and by-products of plant origin for fertilisers   | Examples: oilseed cake meal, cocoa husks, malt culms  |
| B             | Hydrolysed proteins of plant origin  |   |
| A             | Seaweeds and seaweed products  | As far as directly obtained by:<br>(i) physical processes including dehydration, freezing and grinding<br>(ii) extraction with water or aqueous acid and/or alkaline solution<br>(iii) fermentation |
| A             | Sawdust and wood chips   | Wood not chemically treated after felling   |
| A             | Composted bark   | Wood not chemically treated after felling   |
| A             | Wood ash   | From wood not chemically treated after felling  |
| A             | Soft ground rock phosphate   | Product as specified in point 7 of Annex IA.2. to Regulation (EC) No 2003/2003 of the European Parliament and of the Council (?).<br>Cadmium content less than or equal to 90 mg/kg of P205         |
| A             | Aluminium-calcium phosphate  | Product as specified in point 6 of Annex IA.2. to Regulation (EC) No 2003/2003,<br>Cadmium content less than or equal to 90 mg/kg of P205<br>Use limited to basic soils (pH > 7,5)                  |
| A             | Basic slag   | Products as specified in point 1 of Annex IA.2. to Regulation (EC) No 2003/2003   |
| A             | Crude potassium salt or kainit   | Products as specified in point 1 of Annex IA.3. to Regulation (EC) No 2003/2003   |
| A             | Potassium sulphate, possibly containing magnesium salt   | Product obtained from crude potassium salt by a physical extraction process, containing possibly also magnesium salts   |

| Authorisation | Name<br>Compound products or products containing only materials listed hereunder:                           | Description, compositional requirements, conditions for use  |
|---------------|---|--|
| A             | Stillage and stillage extract   | Ammonium stillage excluded   |
| A             | Calcium carbonate, for instance: chalk, marl, ground limestone, Breton ameliorant, (maerl), phosphate chalk | Only of natural origin   |
| B             | Mollusc waste   | Only from sustainable fisheries, as defined in Article 4 (1) (7) of Regulation (EU) No 1380/2013 or organic aquaculture  |
| B             | Egg shells  | Factory farming origin forbidden.  |
| A             | Magnesium and calcium carbonate   | Only of natural origin<br>e.g. magnesian chalk, ground magnesium, limestone  |
| A             | Magnesium sulphate (kieserite)  | Only of natural origin   |
| A             | Calcium chloride solution   | Foliar treatment of apple trees, after identification of deficit of calcium  |
| A             | Calcium sulphate (gypsum)   | Products as specified in point 1 of Annex ID. to Regulation (EC) No 2003/2003<br>Only of natural origin  |
| A, B          | Industrial lime from sugar production   | By-product of sugar production from sugar beet and sugar cane  |
| A             | Industrial lime from vacuum salt production   | By-product of the vacuum salt production from brine found in mountains   |
| A             | Elemental sulphur   | Products as specified in Annex ID.3 to Regulation (EC) No 2003/2003  |
| A             | Trace elements  | Inorganic micronutrients listed in part E of Annex I to Regulation (EC) No 2003/2003   |
| A             | Sodium chloride   |  |
| A             | Stone meal and clays  |  |
| B             | Leonardite (Raw organic sediment rich in humic acids)   | Only if obtained as a by-product of mining activities  |
| B             | Humic and fulvic acids  | Only if obtained by inorganic salts/solutions excluding ammonium salts; or obtained from drinking water purification   |
| B             | Xylite  | Only if obtained as a by-product of mining activities (e.g. by-product of brown coal mining)   |
| B             | Chitin (Polysaccharide obtained from the shell of crustaceans)  | Only if obtained from sustainable fisheries, as defined in Article 4(1)(7) of Regulation (EU) No 1380/2013 or organic aquaculture  |
| B             | Organic rich sediment from fresh water bodies formed under exclusion of oxygen (e.g. sapropel)              | Only organic sediments that are by-products of fresh water body management or extracted from former freshwater areas<br>When applicable, extraction should be done in a way to cause minimal impact on the aquatic system<br>Only sediments derived from sources free from contaminations of pesticides, persistent organic pollutants and petrol like substances<br>Maximum concentrations in mg/kg of dry matter: cadmium: 0,7; copper: 70; nickel: 25; lead: 45; zinc: 200; mercury: 0,4; chromium (total): 70; chromium (VI): not detectable |

| Authorisation | Name<br>Compound products or products containing only materials listed hereunder:   | Description, compositional requirements, conditions for use  |
|---------------|---|--|
| B             | Biochar — pyrolysis product made from a wide variety of organic materials of plant origin and applied as a soil conditioner | Only from plant materials, untreated or treated with products included in Annex II.<br>Maximum value of 4 mg polycyclic aromatic hydro-carbons (PAHs) per kg dry matter (DM). This value shall be reviewed every second year, taking into account the risk of accumulation due to multiple applications' |

(<sup>1</sup>) Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/ 2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive (OJ L 54, 26.2.2011, p. 1).

(<sup>2</sup>) Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers (OJ L 304, 21.11.2003, p. 1).

## ANNEX II

## ANNEX II

**Pesticides — Plant protection products referred to in Article 5(1)**

All the substances listed in this Annex have to comply at least with the conditions for use as specified in the Annex to Commission Implementing Regulation (EU) No 540/2011 <sup>(1)</sup>. More restrictive conditions for use for organic production are specified in the second column of each table.

**1. Substances of plant or animal origin**

| Name  | Description, compositional requirement, conditions for use   |
|---|--|
| Allium sativum (Garlic extract)                                   |  |
| Azadirachtin extracted from <i>Azadirachta indica</i> (Neem tree) |  |
| Beeswax   | Only as pruning agent/wound protectant   |
| COS-OGA   |  |
| Hydrolysed proteins excluding gelatine                            |  |
| Laminarin   | Kelp shall be either grown organically in accordance with Article 6d or harvested in a sustainable way in accordance with Article 6c |
| Maltodextrin  |  |
| Pheromones  | Only in traps and dispensers.  |
| Plant oils  | All uses authorised, except herbicide .  |
| Pyrethrins  | Only from plant origin   |
| Quassia extracted from <i>Quassia amara</i>                       | Only as insecticide, repellent   |
| Repellents by smell of animal or plant origin/<br>sheep fat       | Only on non-edible parts of the crop and where crop material is not ingested by sheep or goats                                       |
| <i>Salix</i> spp. Cortex (a.k.a. willow bark)                     |  |
| Terpenes (eugenol, geraniol and thymol)                           |  |

**2. Basic substances**

|  |  |
|--|--|
| Basic substances based on food (including: Lecithins, sucrose, fructose, vinegar, whey, chitosan hydrochloride <sup>(1)</sup> , and <i>Equisetum arvense</i> etc.) | Only those basic substances as defined by Article 23 of Regulation (EC) No 1107/2009 <sup>(2)</sup> which are food as defined in Article 2 of Regulation (EC) No 178/2002 and have plant or animal origin<br>Substances not to be used as herbicides |
|--|--|

<sup>(1)</sup> Obtained from sustainable fisheries or organic aquaculture.

<sup>(2)</sup> Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market (OJ L 309, 24.11.2009, p. 1).

<sup>(1)</sup> Commission Implementing Regulation (EU) No 540/2011 of 25 May 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances (OJ L 153, 11.6.2011, p. 1).

### 3. Micro-organisms or substances produced by or derived from micro-organisms

| Name            | Description, compositional requirement, conditions for use |
|-----------------|--|
| Micro-organisms | Not from GMO origin  |
| Spinosad        |  |
| Cerevisane      |  |

### 4. Substances other than those mentioned in Sections 1, 2 and 3

| Name  | Description, compositional requirement, conditions or restrictions to use  |
|---|--|
| Aluminium silicate (Kaolin)   |  |
| Calcium hydroxide   | When used as fungicide, only in fruit trees, including nurseries, to control <i>Nectria galligena</i>            |
| Carbon dioxide  |  |
| Copper compounds in the form of: copper hydroxide, copper oxychloride, copper oxide, Bordeaux mixture, and tribasic copper sulphate |  |
| Diammonium phosphate  | Only as attractant in traps  |
| Ethylene  |  |
| Fatty acids   | All uses authorised, except herbicide  |
| Ferric phosphate (iron (III) orthophosphate)  | Preparations to be surface-spread between cultivated plants  |
| Hydrogen peroxide   |  |
| Kieselgur (diatomaceous earth)  |  |
| Lime sulphur (calcium polysulphide)   |  |
| Paraffin oil  |  |
| Potassium and sodium hydrogen carbonate (a.k.a. potassium/sodium bicarbonate)   |  |
| Pyrethroids (only deltamethrin or lambda-cyhalothrin)   | Only in traps with specific attractants; only against <i>Bactrocera oleae</i> and <i>Ceratitis capitata</i> Wied |
| Quartz sand   |  |
| Sodium chloride   | All uses authorised, except herbicide  |
| Sulphur'  |  |



## ANNEX III

## ANNEX VI

**Feed additives used in animal nutrition referred to in Article 22(g), Article 24(2) and Article 25m(2)**

Feed additives listed in this Annex must be authorised under Regulation (EC) No 1831/2003 of the European Parliament and of the Council.

## 1. TECHNOLOGICAL ADDITIVES

(a) *Preservatives*

| ID numbers or Functional groups | Substance      | Description, conditions for use |
|---------------------------------|----------------|---------------------------------|
| E 200                           | Sorbic acid    |                                 |
| E 236                           | Formic acid    |                                 |
| E 237                           | Sodium formate |                                 |
| E 260                           | Acetic acid    |                                 |
| E 270                           | Lactic acid    |                                 |
| E 280                           | Propionic acid |                                 |
| E 330                           | Citric acid    |                                 |

(b) *Antioxidants*

| ID number or Functional groups | Substance   | Description, conditions for use |
|--------------------------------|---|---------------------------------|
| 1b306(i)                       | Tocopherol extracts from vegetable oils                   |                                 |
| 1b306(ii)                      | Tocopherol-rich extracts from vegetable oils (delta rich) |                                 |

(c) *Emulsifiers, stabilisers, thickeners and gelling agents*

| ID numbers or Functional groups | Substance | Description, conditions for use              |
|---------------------------------|-----------|--|
| 1c322                           | Lecithins | Only when derived from organic raw material. |
|                                 |           | Use restricted to aquaculture animal feed.   |

(d) *Binders and anti-caking agents*

| ID number or Functional groups | Substance           | Description, conditions for use                                      |
|--------------------------------|---------------------|--|
| E 412                          | Guar gum            |  |
| E 535                          | Sodium ferrocyanide | Maximum dose rate of 20 mg/kg NaCl calculated as ferrocyanide anion. |

| ID number or Functional groups | Substance                                  | Description, conditions for use |
|--------------------------------|--|---------------------------------|
| E 551b                         | Colloidal silica                           |                                 |
| E 551c                         | Kieselgur (diatomaceous earth, purified)   |                                 |
| 1m558i                         | Bentonite                                  |                                 |
| E 559                          | Kaolinitic clays, free of asbestos         |                                 |
| E 560                          | Natural mixtures of steatites and chlorite |                                 |
| E 561                          | Vermiculite                                |                                 |
| E 562                          | Sepiolite                                  |                                 |
| E 566                          | Natrolite-Phonolite                        |                                 |
| 1g568                          | Clinoptilolite of sedimentary origin       |                                 |
| E 599                          | Perlite                                    |                                 |

(e) *Silage additives*

| ID number or Functional groups | Substance                                | Description, conditions for use   |
|--------------------------------|--|---|
| 1k<br>1k236                    | Enzymes, micro-organisms<br>Formic acid, | Use restricted to production of silage when weather conditions do not allow for adequate fermentation.<br>The use of formic, propionic acid and their sodium salts in the production of silage shall only be permitted when weather conditions do not allow for adequate fermentation |
| 1k237                          | Sodium formate                           |   |
| 1k280                          | Propionic acid                           |   |
| 1k281                          | Sodium propionate                        |   |

## 2. SENSORY ADDITIVES

| ID number or Functional groups | Substance                                      | Description, conditions for use           |
|--------------------------------|--|---|
| 2b                             | Flavouring compounds                           | Only extracts from agricultural products. |
|                                | <i>Castanea sativa</i> Mill.: Chestnut extract |   |

## 3. NUTRITIONAL ADDITIVES

(a) *Vitamins, pro-vitamins and chemically well-defined substances having similar effect*

| ID number or Functional groups | Substance                | Description, conditions for use   |
|--------------------------------|--------------------------|---|
| 3a                             | Vitamins and provitamins | Derived from agricultural products.<br>If derived synthetically, only those identical to vitamins derived from agricultural products may be used for monogastric animals and aquaculture animals. |

| ID number or Functional groups | Substance         | Description, conditions for use  |
|--------------------------------|-------------------|--|
|                                |                   | If derived synthetically, only vitamins A, D and E identical to vitamins derived from agricultural products may be used for ruminants; the use is subject to prior authorisation of the Member States based on the assessment of the possibility for organic ruminants to obtain the necessary quantities of the said vitamins through their feed rations. |
| 3a920                          | Betaine anhydrous | Only for monogastric animals<br>Only from natural origin and when available from organic origin  |

(b) *Compounds of trace elements*

|  | ID number or Functional groups | Substance  | Description, conditions for use |
|--|--------------------------------|--|---------------------------------|
|  | E1 Iron                        |  |                                 |
|  | 3b101                          | Iron(II) carbonate (siderite)                                      |                                 |
|  | 3b103                          | Iron(II) sulphate monohydrate                                      |                                 |
|  | 3b104                          | Iron(II) sulphate heptahydrate                                     |                                 |
|  | 3b201                          | Potassium iodide   |                                 |
|  | 3b202                          | Calcium iodate, anhydrous  |                                 |
|  | 3b203                          | Coated granulated calcium iodate anhydrous                         |                                 |
|  | 3b301                          | Cobalt(II) acetate tetrahydrate                                    |                                 |
|  | 3b302                          | Cobalt(II) carbonate   |                                 |
|  | 3b303                          | Cobalt(II) carbonate hydroxide (2:3) monohydrate                   |                                 |
|  | 3b304                          | Coated granulated cobalt(II) carbonate hydroxide (2:3) monohydrate |                                 |
|  | 3b305                          | Cobalt(II) sulphate heptahydrate                                   |                                 |
|  | 3b402                          | Copper(II) carbonate dihydroxy monohydrate                         |                                 |
|  | 3b404                          | Copper (II) oxide  |                                 |
|  | 3b405                          | Copper(II) sulphate pentahydrate                                   |                                 |
|  | 3b409                          | Dicopper chloride trihydroxide (TBCC)                              |                                 |
|  | 3b502                          | Manganese (II) oxide   |                                 |
|  | 3b503                          | Manganous sulfate, monohydrate                                     |                                 |
|  | 3b603                          | Zinc oxide   |                                 |
|  | 3b604                          | Zinc sulphate heptahydrate   |                                 |

|  | ID number or Functional groups       | Substance                                  | Description, conditions for use |
|--|--------------------------------------|--|---------------------------------|
|  | 3b605                                | Zinc sulphate monohydrate                  |                                 |
|  | 3b609                                | Zinc chloride hydroxide monohydrate (TBZC) |                                 |
|  | 3b701                                | Sodium molybdate dihydrate                 |                                 |
|  | 3b801                                | Sodium selenite                            |                                 |
|  | 3b810, 3b811, 3b812, 3b813 and 3b817 | Selenised yeast inactivated                |                                 |

## 4. ZOOTECHNICAL ADDITIVES

| ID number or Functional groups | Substance   | Description, conditions for use |
|--------------------------------|---|---------------------------------|
| 4a, 4b, 4c and 4d              | Enzymes and microorganism in the category of "Zootechnical additives" |                                 |

## ANNEX IV

## ANNEX VIII

**Certain products and substances for use in production of processed organic food, yeast and yeast products referred to in Article 27(1)(a) and Article 27a(a)**

## SECTION A — FOOD ADDITIVES, INCLUDING CARRIERS

For the purpose of the calculation referred to in Article 23(4)(a)(ii) of Regulation (EC) No 834/2007, food additives marked with an asterisk in the column of the code number, shall be calculated as ingredients of agricultural origin

| Code    | Name                     | Preparation of foodstuffs of |                   | Specific conditions and restrictions in addition to Regulation (EC) No 1333/2008   |
|---------|--------------------------|------------------------------|-------------------|--|
|         |                          | plant origin                 | Animal origin     |  |
| E 153   | Vegetable carbon         |                              | X                 | Ashy goat cheese<br>Morbier cheese   |
| E 160b* | Annatto, Bixin, Norbixin |                              | X                 | Red Leicester cheese<br>Double Gloucester cheese<br>Cheddar<br>Mimolette cheese  |
| E 170   | Calcium carbonate        | X                            | X                 | Shall not be used for colouring or calcium enrichment of products  |
| E 220   | Sulphur dioxide          | X                            | X(Only for mead)  | In fruit wines (wine made from fruits other than grapes, including cider and perry) and mead with and without added sugar: 100 mg/l (Maximum levels available from all sources, expressed as SO <sub>2</sub> in mg/l)  |
| E 223   | Sodium metabisulphite    |                              | X                 | Crustaceans  |
| E 224   | Potassium metabisulphite | X                            | X (Only for mead) | In fruit wines (wine made from fruits other than grapes, including cider and perry) and mead with and without added sugar: 100 mg/l (Maximum levels available from all sources, expressed as SO <sub>2</sub> in mg/l)  |
| E250    | Sodium nitrite           |                              | X                 | For meat products. May only be used, if it has been demonstrated to the satisfaction of the competent authority that no technological alternative, giving the same guarantees and/or allowing to maintain the specific features of the product, is available. Not in combination with E252. Indicative ingoing amount expressed as NaNO <sub>2</sub> : 80 mg/kg, maximum residual amount expressed as NaNO <sub>2</sub> : 50 mg/kg |
| E252    | Potassium nitrate        |                              | X                 | For meat products. May only be used, if it has been demonstrated to the satisfaction of the competent authority that no technological alternative, giving the same guarantees and/or allowing to maintain the specific features of the product, is available. Not in combination with E250. Indicative ingoing amount expressed as NaNO <sub>3</sub> : 80 mg/kg, maximum residual amount expressed as NaNO <sub>3</sub> : 50 mg/kg |

| Code      | Name                    | Preparation of foodstuffs of |                  | Specific conditions and restrictions in addition to Regulation (EC) No 1333/2008  |
|-----------|-------------------------|------------------------------|------------------|---|
|           |                         | plant origin                 | Animal origin    |   |
| E 270     | Lactic acid             | X                            | X                |   |
| E 290     | Carbon dioxide          | X                            | X                |   |
| E 296     | Malic acid              | X                            |                  |   |
| E 300     | Ascorbic acid           | X                            | X                | With regard to foodstuffs of animal origin: Meat products   |
| E 301     | Sodium ascorbate        |                              | X                | With regard to foodstuffs of animal origin: Meat products in connection with nitrates and nitrites  |
| E 306(*)  | Tocopherol-rich extract | X                            | X                | Anti-oxidant  |
| E 322(*)  | Lecithins               | X                            | X                | With regard to foodstuffs of animal origin: Milk products.<br>Only when derived from organic production. Applicable as of 1 January 2022. Until that date, only when derived from organic raw material. |
| E 325     | Sodium lactate          |                              | X                | Milk-based and meat products  |
| E 330     | Citric acid             | X                            | X                |   |
| E 331     | Sodium citrates         | X                            | X                |   |
| E 333     | Calcium citrates        | X                            |                  |   |
| E 334     | Tartaric acid (L(+)-)   | X                            | X(Only for mead) | With regard to foodstuffs of animal origin: Mead.   |
| E 335     | Sodium tartrates        | X                            |                  |   |
| E 336     | Potassium tartrates     | X                            |                  |   |
| E 341 (i) | Monocalcium phosphate   | X                            |                  | Raising agent for self-raising flour  |
| E 392*    | Extracts of Rosemary    | X                            | X                | Only when derived from organic production   |
| E 400     | Alginic acid            | X                            | X                | With regard to foodstuffs of animal origin: milk-based products   |
| E 401     | Sodium alginate         | X                            | X                | With regard to foodstuffs of animal origin: milk-based products   |
| E 402     | Potassium alginate      | X                            | X                | With regard to foodstuffs of animal origin: milk-based products   |
| E 406     | Agar                    | X                            | X                | With regard to foodstuffs of animal origin: milk-based products and meat products   |
| E 407     | Carrageenan             | X                            | X                | With regard to foodstuffs of animal origin: milk-based products   |
| E 410*    | Locust bean gum         | X                            | X                | Only when derived from organic production. Applicable as of 1 January 2022.   |

| Code       | Name                           | Preparation of foodstuffs of |               | Specific conditions and restrictions in addition to Regulation (EC) No 1333/2008   |
|------------|--------------------------------|------------------------------|---------------|--|
|            |                                | plant origin                 | Animal origin |  |
| E 412*     | Guar gum                       | X                            | X             | Only when derived from organic production. Applicable as of 1 January 2022.  |
| E 414*     | Arabic gum                     | X                            | X             | Only when derived from organic production. Applicable as of 1 January 2022.  |
| E 415      | Xanthan gum                    | X                            | X             |  |
| E 417      | Tara gum powder                | X                            | X             | Thickener<br>Only when derived from organic production. Applicable as of 1 January 2022.   |
| E 418      | Gellan gum                     | X                            | X             | High-acyl form only<br>Only when derived from organic production. Applicable as of 1 January 2022.   |
| E 422      | Glycerol                       | X                            | X             | Only from plant origin<br>Only when derived from organic production. Applicable as of 1 January 2022.<br>For plant extracts, flavourings, humectant in gel capsules and as a surface coating of tablets  |
| E 440 (i)* | Pectin                         | X                            | X             | With regard to foodstuffs of animal origin: milk-based products  |
| E 464      | Hydroxypropyl methyl cellulose | X                            | X             | Encapsulation material for capsules  |
| E 500      | Sodium carbonates              | X                            | X             |  |
| E 501      | Potassium carbonates           | X                            |               |  |
| E 503      | Ammonium carbonates            | X                            |               |  |
| E 504      | Magnesium carbonates           | X                            |               |  |
| E 509      | Calcium chloride               |                              | X             | Milk coagulation   |
| E 516      | Calcium sulphate               | X                            |               | Carrier  |
| E 524      | Sodium hydroxide               | X                            |               | Surface treatment of "Laugengebäck" and regulation of acidity in organic flavourings   |
| E 551      | Silicon dioxide                | X                            | X             | For herbs and spices in dried powdered form, flavourings and propolis  |
| E 553b     | Talc                           | X                            | X             | With regard to foodstuffs of animal origin: surface treatment of sausages  |
| E 901      | Beeswax                        | X                            |               | As a glazing agent for confectionary only. Beeswax from organic production   |
| E 903      | Carnauba wax                   | X                            |               | As a glazing agent for confectionary<br>As a mitigating method for mandatory extreme cold treatment of fruit as a quarantine measure against harmful organisms (Commission Implementing Directive (EU) 2017/1279) (1)<br>Only when derived from organic production. Applicable as of 1 January 2022. Until that date, only when derived from organic raw material. |

| Code  | Name       | Preparation of foodstuffs of |               | Specific conditions and restrictions in addition to Regulation (EC) No 1333/2008 |
|-------|------------|------------------------------|---------------|--|
|       |            | plant origin                 | Animal origin |  |
| E 938 | Argon      | X                            | X             |  |
| E 939 | Helium     | X                            | X             |  |
| E 941 | Nitrogen   | X                            | X             |  |
| E 948 | Oxygen     | X                            | X             |  |
| E 968 | Erythritol | X                            | X             | Only when derived from organic production without using ion exchange technology  |

(<sup>1</sup>) Commission Implementing Directive (EU) 2017/1279 of 14 July 2017 amending Annexes I to V to Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community (OJ L 184, 15.7.2017, p. 33).

SECTION B — PROCESSING AIDS AND OTHER PRODUCTS, WHICH MAY BE USED FOR PROCESSING OF INGREDIENTS OF AGRICULTURAL ORIGIN FROM ORGANIC PRODUCTION

| Name                              | Preparation of all foodstuffs of plant origin | Preparation of all foodstuffs of animal origin | Specific conditions and restrictions in addition to Regulation (EU) No 1333/2008   |
|-----------------------------------|---|--|--|
| Water                             | X   | X  | Drinking water within the meaning of Council Directive 98/83/EC  |
| Calcium chloride                  | X   |  | Coagulation agent  |
| Calcium carbonate                 | X   |  |  |
| Calcium hydroxide                 | X   |  |  |
| Calcium sulphate                  | X   |  | Coagulation agent  |
| Magnesium chloride (or nigari)    | X   |  | Coagulation agent  |
| Potassium carbonate               | X   |  | With regard to foodstuffs of plant origin: drying of grapes  |
| Sodium carbonate                  | X   | X  |  |
| Lactic acid                       |   | X  | With regard to foodstuffs of animal origin: for the regulation of the pH of the brine bath in cheese production  |
| L(+)lactic acid from fermentation | X   |  | With regard to foodstuffs of plant origin: for the preparation of plant protein extracts   |
| Citric acid                       | X   | X  |  |
| Sodium hydroxide                  | X   |  | With regard to foodstuffs of plant origin: for sugar(s) production; for oil production excluding olive oil production; for the preparation of plant protein extracts |
| Sulphuric acid                    | X   | X  | Gelatine production<br>Sugar(s) production   |
| Hop extract                       | X   |  | With regard to foodstuffs of plant origin: only for antimicrobial purposes in production of sugar.<br>When available from organic production                         |



| Name                                      | Preparation of all foodstuffs of plant origin | Preparation of all foodstuffs of animal origin | Specific conditions and restrictions in addition to Regulation (EU) No 1333/2008  |
|---|---|--|---|
| Pine rosin extract                        | X   |  | With regard to foodstuffs of plant origin: only for antimicrobial purposes in production of sugar.<br>When available from organic production  |
| Hydrochloric acid                         |   | X  | With regard to foodstuffs of animal origin: Gelatine production; for the regulation of the pH of the brine bath in the processing of Gouda-, Edam and Maasdammer cheeses, Boerenkaas, Friese and Leidse Nagelkaas |
| Ammonium hydroxide                        |   | X  | With regard to foodstuffs of animal origin: gelatine production   |
| Hydrogen peroxide                         |   | X  | With regard to foodstuffs of animal origin: gelatine production   |
| Carbon dioxide                            | X   | X  |   |
| Nitrogen                                  | X   | X  |   |
| Ethanol                                   | X   | X  | Solvent   |
| Tannic acid                               | X   |  | Filtration aid  |
| Egg white albumin                         | X   |  |   |
| Casein                                    | X   |  |   |
| Gelatin                                   | X   |  |   |
| Isinglass                                 | X   |  |   |
| Vegetable oils                            | X   | X  | Greasing, releasing or anti-foaming agent.<br>Only when derived from organic production   |
| Silicon dioxide gel or colloidal solution | X   |  |   |
| Activated carbon                          | X   |  |   |
| Talc                                      | X   |  | In compliance with the specific purity criteria for food additive E 553b  |
| Bentonite                                 | X   | X  | With regard to foodstuffs of animal origin: as a sticking agent for mead  |
| Cellulose                                 | X   | X  | With regard to foodstuffs of animal origin: Gelatine production   |
| Diatomaceous earth                        | X   | X  | With regard to foodstuffs of animal origin: Gelatine production   |
| Perlite                                   | X   | X  | With regard to foodstuffs of animal origin: Gelatine production   |
| Hazelnut shells                           | X   |  |   |
| Rice meal                                 | X   |  |   |
| Beeswax                                   | X   |  | Releasing agent.<br>Beeswax from organic production   |

| Name                  | Preparation of all foodstuffs of plant origin | Preparation of all foodstuffs of animal origin | Specific conditions and restrictions in addition to Regulation (EU) No 1333/2008   |
|-----------------------|---|--|--|
| Carnauba wax          | X   |  | Releasing agent.<br>Only when derived from organic production.<br>Applicable as of 1 January 2022. Until that date, only when derived from organic raw material  |
| Acetic acid/vinegar   |   | X  | Only when derived from organic production.<br>For fish processing only. From natural fermentation, Not to be produced by or from GMO   |
| Thiamin hydrochloride | X   | X  | Only for use in processing of fruit wines, including cider and perry and mead  |
| Diammonium phosphate  | X   | X  | Only for use in processing of fruit wines, including cider and perry and mead  |
| Wood fibre            | X   | X  | The source of timber should be restricted to certified, sustainably harvested wood.<br>Wood used must not contain toxic components (post-harvest treatment, naturally occurring toxins or toxins from micro-organisms) |

## SECTION C — PROCESSING AIDS FOR THE PRODUCTION OF YEAST AND YEAST PRODUCTS

| Name             | Primary yeast | Yeast confections/formulations | Specific conditions  |
|------------------|---------------|--------------------------------|--|
| Calcium chloride | X             |                                |  |
| Carbon dioxide   | X             | X                              |  |
| Citric acid      | X             |                                | For the regulation of the pH in yeast production                                     |
| Lactic acid      | X             |                                | For the regulation of the pH in yeast production                                     |
| Nitrogen         | X             | X                              |  |
| Oxygen           | X             | X                              |  |
| Potato starch    | X             | X                              | For filtering<br>Only when derived from organic production                           |
| Sodium carbonate | X             | X                              | For the regulation of the pH   |
| Vegetable oils   | X             | X                              | Greasing, releasing or anti-foaming agent Only when derived from organic production' |

## ANNEX V

## ANNEX VIIIa

**Products and substances authorised for use or addition in organic products of the wine sector referred to in Article 29c**

| Type of treatment in accordance with Annex I A to Regulation (EC) No 606/2009                       | Name of products or substances   | Specific conditions, restrictions within the limits and conditions set out in Regulation (EC) No 1234/2007 and Regulation (EC) No 606/2009   |
|---|--|--|
| Point 1: Use for aeration or oxygenation  | <ul style="list-style-type: none"> <li>— Air</li> <li>— Gaseous oxygen</li> </ul>  |  |
| Point 3: Centrifuging and filtration  | <ul style="list-style-type: none"> <li>— Perlite</li> <li>— Cellulose</li> <li>— Diatomeaceous earth</li> </ul>  | Use only as an inert filtering agent   |
| Point 4: Use in order to create an inert atmosphere and to handle the product shielded from the air | <ul style="list-style-type: none"> <li>— Nitrogen</li> <li>— Carbon dioxide</li> <li>— Argon</li> </ul>  |  |
| Points 5, 15 and 21: Use  | <ul style="list-style-type: none"> <li>— Yeasts <sup>(1)</sup>, yeast cell walls</li> </ul>  |  |
| Point 6: Use  | <ul style="list-style-type: none"> <li>— Di-ammonium phosphate</li> <li>— Thiamine hydrochloride</li> <li>— Yeast autolysates</li> </ul>   |  |
| Point 7: Use  | <ul style="list-style-type: none"> <li>— Sulphur dioxide</li> <li>— Potassium bisulphite or potassium metabi-sulphite</li> </ul>   | <p>(a) The maximum sulphur dioxide content shall not exceed 100 milligrams per litre for red wines as referred to in point 1(a) of Part A of Annex I B to Regulation (EC) No 606/ 2009 and with a residual sugar level lower than 2 grams per litre;</p> <p>(b) The maximum sulphur dioxide content shall not exceed 150 milligrams per litre for white and rosé wines as referred to in point 1(b) of Part A of Annex I B to Regulation (EC) No 606/2009 and with a residual sugar level lower than 2 grams per litre;</p> <p>(c) For all other wines, the maximum sulphur dioxide content applied in accordance with Annex I B to Regulation (EC) No 606/2009 on 1 August 2010, shall be reduced by 30 milligrams per litre.</p> |
| Point 9: Use  | <ul style="list-style-type: none"> <li>— Charcoal for oenological use</li> </ul>   |  |
| Point 10: Clarification   | <ul style="list-style-type: none"> <li>— Edible gelatine <sup>(2)</sup></li> <li>— Plant proteins from wheat or peas <sup>(2)</sup></li> <li>— Isinglass <sup>(2)</sup></li> <li>— Egg white albumin <sup>(2)</sup></li> <li>— Tannins <sup>(2)</sup></li> <li>— Potato proteins <sup>(2)</sup></li> <li>— Yeast protein extracts <sup>(2)</sup></li> <li>— Casein</li> <li>— Chitosan derived from <i>Aspergillus niger</i></li> <li>— Potassium caseinate</li> <li>— Silicon dioxide</li> <li>— Bentonite</li> <li>— Pectolytic enzymes</li> </ul> |  |

| Type of treatment in accordance with Annex I A to Regulation (EC) No 606/2009                | Name of products or substances   | Specific conditions, restrictions within the limits and conditions set out in Regulation (EC) No 1234/2007 and Regulation (EC) No 606/2009 |
|--|--|--|
| Point 12: Use for acidification purposes   | — Lactic acid<br>— L(+)-Tartaric acid  |  |
| Point 13: Use for deacidification purposes   | — L(+)-Tartaric acid<br>— Calcium carbonate<br>— Neutral potassium tartrate<br>— Potassium bicarbonate |  |
| Point 14: Addition   | — Aleppo pine resin  |  |
| Point 17: Use  | — Lactic bacteria  |  |
| Point 19: Addition   | — L-Ascorbic acid  |  |
| Point 22: Use for bubbling   | — Nitrogen   |  |
| Point 23: Addition   | — Carbon dioxide   |  |
| Point 24: Addition for wine stabilisation purposes   | — Citric acid  |  |
| Point 25: Addition   | — Tannins <sup>(1)</sup>   |  |
| Point 27: Addition   | — Meta-tartaric acid   |  |
| Point 28: Use  | — Acacia gum <sup>(2)</sup> (= gum arabic)   |  |
| Point 30: Use  | — Potassium bitartrate   |  |
| Point 31: Use  | — Cupric citrate   |  |
| Point 35: Use  | — Yeast mannoproteins  |  |
| Point 38: Use  | — Oak chips  |  |
| Point 39: Use  | — Potassium alginate   |  |
| Point 44: Use  | — Chitosan derived from <i>Aspergillus niger</i>   |  |
| Point 51: Use  | — Inactivated yeast  |  |
| Type of treatment in accordance with Annex III, point A(2)(b) to Regulation (EC) No 606/2009 | — Calcium sulphate   | Only for “vino generoso” or “vino generoso de licor”   |

<sup>(1)</sup> For the individual yeast strains: if available, derived from organic raw material.

<sup>(2)</sup> Derived from organic raw material if available.