

**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 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). 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 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 Only vegetable and animal household waste Only when produced in a closed and monitored collection system, accepted by the Member State 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
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. The Processes have to be in accordance with Commission Regulation (EU) No 142/2011. Not to be applied to edible parts of the crop

Authorisation	Name 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: Blood meal Hoof meal Horn meal Bone meal or degelatinised bone meal Fish meal Meat meal Feather, hair and "chiquette" meal Wool Fur (1) Hair Dairy products Hydrolysed proteins (2)	(1) Maximum concentration in mg/kg of dry matter of chromium (VI): not detectable (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: (i) physical processes including dehydration, freezing and grinding (ii) extraction with water or aqueous acid and/or alkaline solution (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 (?). Cadmium content less than or equal to 90 mg/kg of P2O5
A	Aluminium-calcium phosphate	Product as specified in point 6 of Annex IA.2. to Regulation (EC) No 2003/2003, Cadmium content less than or equal to 90 mg/kg of P2O5 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 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 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 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 When applicable, extraction should be done in a way to cause minimal impact on the aquatic system Only sediments derived from sources free from contaminations of pesticides, persistent organic pollutants and petrol like substances 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 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. 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/ 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 Substances not to be used as herbicides
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<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 1k236	Enzymes, micro-organisms Formic acid,	Use restricted to production of silage when weather conditions do not allow for adequate fermentation. 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. 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 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 Morbier cheese
E 160b*	Annatto, Bixin, Norbixin		X	Red Leicester cheese Double Gloucester cheese Cheddar 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. 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 Only when derived from organic production. Applicable as of 1 January 2022.
E 418	Gellan gum	X	X	High-acyl form only Only when derived from organic production. Applicable as of 1 January 2022.
E 422	Glycerol	X	X	Only from plant origin Only when derived from organic production. Applicable as of 1 January 2022. 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 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) 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 Sugar(s) production
Hop extract	X		With regard to foodstuffs of plant origin: only for antimicrobial purposes in production of sugar. 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. 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. 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. 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. Only when derived from organic production. 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. 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. 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 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	— Air — Gaseous oxygen	
Point 3: Centrifuging and filtration	— Perlite — Cellulose — Diatomeaceous earth	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	— Nitrogen — Carbon dioxide — Argon	
Points 5, 15 and 21: Use	— Yeasts <sup>(1)</sup> , yeast cell walls	
Point 6: Use	— Di-ammonium phosphate — Thiamine hydrochloride — Yeast autolysates	
Point 7: Use	— Sulphur dioxide — Potassium bisulphite or potassium metabi-sulphite	(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; (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; (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.
Point 9: Use	— Charcoal for oenological use	
Point 10: Clarification	— Edible gelatine <sup>(2)</sup> — Plant proteins from wheat or peas <sup>(2)</sup> — Isinglass <sup>(2)</sup> — Egg white albumin <sup>(2)</sup> — Tannins <sup>(2)</sup> — Potato proteins <sup>(2)</sup> — Yeast protein extracts <sup>(2)</sup> — Casein — Chitosan derived from <i>Aspergillus niger</i> — Potassium caseinate — Silicon dioxide — Bentonite — Pectolytic enzymes	

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 — L(+)-Tartaric acid	
Point 13: Use for deacidification purposes	— L(+)-Tartaric acid — Calcium carbonate — Neutral potassium tartrate — 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.