

# Organic Processing

Summary from:

## SRS Organic Standard

Version 01.01  
from 29.05.2018

Based on

COUNCIL REGULATION (EC) No 834/2007 of 28 June 2007, as amended  
COMMISSION REGULATION (EC) No 889/2008 of 5 September 2008, as amended

### Specific principles applicable to processing of organic product

In addition to the general principles for organic production, the production of processed organic food/feed is based on the following specific principles:

- The **production of organic food/feed from organic agricultural ingredients**, except where an ingredient is not available on the market in organic form.  
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- The **restriction of the use of food additives**, of non-organic ingredients with mainly technological and sensory functions and of micronutrients and processing aids, so that they are used to a minimum extent and only in case of essential technological need or for particular nutritional purposes.
  
- The **restriction of the use of feed additives** and processing aids to a minimum extent and only in case of essential technological or zootechnical needs or for particular nutritional purposes.  
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- The exclusion of substances and processing methods that might be misleading regarding the true nature of the product.  
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- The processing of food with care, preferably with the use of biological, mechanical and physical methods.

## General rules for the production of processed feed and food

In addition to the general organic production rules the following rules apply to organic processing:

- Production of processed organic feed and/or food shall be kept separate in time or space from production of processed non-organic feed and/or food.
- Substances and techniques that reconstitute properties that are lost in the processing and storage of organic feed and/or food, that correct the results of negligence in the processing of these products or that otherwise may be misleading as to the true nature of these products shall not be used.
- Additives, processing aids and other substances and ingredients used for processing food or feed and any processing practice applied, such as smoking, shall respect the principles of good manufacturing practice.
- Operators producing processed feed or food shall establish and update appropriate **procedures based on a systematic identification of critical processing steps**. The application such procedures shall guarantee that the preserved or processed products comply with the organic production rules. In particular, operators shall:
  - **take precautionary measures to avoid the risk of contamination** by unauthorized substances or products;
  - **implement suitable cleaning measures, monitor their effectiveness and record these operations;**
  - **guarantee that non-organic products are not placed on the market with an indication referring to the organic production method.**

## Parallel processing organic and non-organic products

In case of parallel processing or storage of non-organic products in the certified unit, the operator shall:

- carry out **the operations continuously until the complete run has been dealt with, separated by place or time** from similar operations performed on non-organic products;
- **store organic products, before and after the operations, separate by place or time from non-organic products;**
- inform SRS and keep available an updated register of all operations and quantities processed;
- take the necessary measures to **ensure identification of lots and to avoid mixtures or exchanges with non-organic products;**
- carry out operations on **organic products only after suitable cleaning** of the production equipment.

## Specific rules for processing of organic food

The product shall be produced mainly from ingredients of agricultural origin; in order to determine whether a product is produced mainly from ingredients of agricultural origin added water and cooking salt shall not be taken into account.

An organic ingredient shall not be present together with the same ingredient in non-organic form or an ingredient in conversion.

### Products and substances used in processing of food

- The SRS EU equivalent standard accepts only products and substances which were authorised by the European Commission for the use in organic food processing (Annex VIII, VIIIa and IX).
- Only additives, processing aids, flavorings, water, salt, preparations of micro-organisms and enzymes, minerals, trace elements, vitamins, as well as amino acids and other micronutrients in foodstuffs for particular nutritional uses may be used, and only in so far as they have been authorized for use in organic production.
- Non-organic agricultural ingredients may be used in the processing of organic food only if they have been listed in Annex IX SRS EU equivalent standard.

For the purpose of the **calculation of the organic percentage of the final product**:

- food additives listed in Annex VIII and marked with an asterisk in the column of the additive code number, shall be calculated as ingredients of agricultural origin.
- preparations and substances referred to in paragraph V.3.2(b) and substances not marked with an asterisk in the column of the additive code number shall not be calculated as ingredients of agricultural origin.
- yeast and yeast products shall be calculated as ingredients of agricultural origin.

## Specific rules for processing of organic feed

In the organic livestock production, **the animals shall be fed with organic feed that meets their nutritional requirements at the various stage of their development.** A part of the ration may contain feed of in conversion to organic quality.

The SRS accepts only feed material from plant, animal and mineral origin, feed additives, certain products used in animal nutrition and processing aids which were authorised for organic livestock production and in organic feed production and processing (Annex V and VI).

Organic or in-conversion feed materials shall not be processed simultaneously with the same feed materials produced by non-organic means into the composition of the organic feed product.

Any feed materials used or processed in organic production shall not have been processed with the aid of chemically synthesised solvents.

Non-organic feed material of plant or animal origin or other feed material that are listed in section 2 of annex V may be used provided that they are produced or prepared without chemical solvents and do not exceed the maximum allowed percentage of non-organic feed in the total annual feed consumption in organic livestock production systems.

Growth promoters and synthetic amino-acids shall not be used.

Products from sustainable fisheries may be used in feed production, provided that:

- they are produced or prepared without chemical treatments;
- their use is restricted to non-herbivores;
- the use of fish protein hydrolysate is restricted solely to young animals.

Salt as sea salt, coarse rock salt may be used.

## **Annex V**

### **Feed materials**

#### **1. Feed materials of mineral origin**

Calcareous marine shells	Magnesium carbonate
Maerl	Calcium magnesium phosphate
Lithotamn	Magnesium phosphate
Calcium gluconate	Monosodium phosphate
Calcium carbonate	Calcium sodium phosphate
Defluorinated monocalciumphosphate	Sodium chloride
Defluorinated dicalciumphosphate	Sodium bicarbonate
Magnesium oxide (anhydrous magnesia)	Sodium carbonate
Magnesium sulphate	Sodium sulphate
Magnesium chloride	Potassium chloride

#### **2. Other feed materials**

Fermentation (by-)products from microorganisms the cells of which have been inactivated or killed.

Saccharomyces cerevisiae
Saccharomyces carlsbergiensis

## Annex VI

### Feed additives and certain substance used in animal nutrition

#### 1. Technological additives

##### *Preservatives*

ID number 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	

##### *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)	

##### *Emulsifiers, stabilisers, thickeners and gelling agents*

ID number or functional groups	Substance	Description, conditions for use
E 322	Lecithins	Only when derived from organic raw material. Use restricted to aquaculture animal feed.
E 535	Sodium ferrocyanide	Maximum dose rate of 20 mg/kg NaCl calculated as ferrocyanide anion.
E 551b	Colloidal silica	
E 551c	Kieselgur (diatomaceous earth, purified)	
1m558i	Bentonite	
E 559	Kaolinitic clays, free of asbestos	
E 560	Natural mixtures of stearites and chlorite	
E 561	Vermiculite	
E 562	Sepiolite	
E 566	Natrolite-Phonolite	
1g568	Clinoptilolite of origin	sedimentary
E 599	Perlite	

##### *Silage additives*

ID number or Functional groups	Substance	Description, conditions for use
1k	Enzymes and micro-organisms	Use restricted to production of silage when weather conditions do not allow for adequate fermentation.

#### 2. Sensory additives

ID number or Functional groups	Substance	Description, conditions for use
2b	Flavouring compounds	Only extracts from agricultural products.

### 3. Nutritional additives

*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	<ul style="list-style-type: none"> <li>- Derived from agricultural products.</li> <li>- If derived synthetically, only those identical to vitamins derived from agricultural products may be used for monogastric animals and aquaculture animals.</li> <li>- 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 country where the feed shall be used, based on the assessment of the possibility for organic ruminants to obtain the necessary quantities of the said vitamins through their feed rations.</li> </ul>

*Compounds of trace elements*

ID number or Functional groups	Substance	Description, conditions for use
E1 Iron	Ferric oxide Ferrous carbonate Ferrous sulphate, heptahydrate Ferrous sulphate, monohydrate	
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	
3b305	Cobalt(II) sulphate heptahydrate	
E4 Copper	Basic cupric carbonate, monohydrate Cupric oxide Cupric sulphate, pentahydrate	
3b409	Dicopper chloride trihydroxide (TBCC)	
E5 Manganese	Manganous oxide Manganous sulfate, monohydrate Manganous carbonate	
E6 Zinc	Zinc oxide Zinc sulphate monohydrate Zinc sulphate heptahydrate	
3b609	Zinc chloride hydroxide monohydrate (TBZC)	
E7 Molybdenum	Sodium molybdate	
E8 Selenium	Sodium selenite Sodium selenate	
3b8.10, 3b8.11, 3b8.12, 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 VIII

### Certain products and substances for use in production of processed organic food

#### SECTION A – Food additives, including carriers

For the purpose of the [calculation of the organic material percentage in the final product](#), 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
		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, other than grapes (including cider and perry) and in mead with or without sugar added: maximum level available from all sources equivalent to 100 mg/l SO <sub>2</sub>
E 224	Potassium metabisulphite	X	X (Only for mead)	
E 223	Sodium metabisulphite		X	Crustaceans
E 250 or	Sodium nitrite		X	For meat products:
E 252	Potassium nitrate		X	For E 250: indicative ingoing amount expressed as NaNO <sub>2</sub> : 80 mg/kg For E 252: indicative ingoing amount expressed as NaNO <sub>3</sub> : 80 mg/kg For E 250: maximum residual amount expressed as NaNO <sub>2</sub> : 50 mg/kg For E 252: maximum residual amount expressed as NaNO <sub>3</sub> : 50 mg/kg
E 270	Lactic acid	X	X	
E 290	Carbon dioxide	X	X	
E 296	Malic acid	X		
E 300	Ascorbic acid	X	X	Meat products
E 301	Sodium ascorbate		X	Meat products with nitrates and nitrites in connection
E 306*	Tocopherol-rich extract	X	X	Anti-oxidant
E 322*	Lecithins	X	X	Milk products Only when derived from organic raw material. (As from 1 January 2019).
E 325	Sodium lactate		X	Milk-based and meat products
E 330	Citric acid	X	X	
E 330	Citric acid		X	Crustaceans and molluscs

Code	Name	Preparation of foodstuffs of		Specific conditions
		plant origin	animal origin	
E 331	Sodium citrates	X	X	
E 333	Calcium citrates	X		
E 334	Tartaric acid (L(+)-)	X	X (Only for 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	Milk-based products
E 401	Sodium alginate	X	X	Milk-based products
E 402	Potassium alginate	X	X	Milk-based products
E 406	Agar	X	X	Milk-based and meat products
E 407	Carrageenan	X	X	Milk-based products
E 410*	Locust bean gum	X	X	
E 412*	Guar gum	X	X	
E 414*	Arabic gum	X	X	
E 415	Xanthan gum	X	X	
E 418	Gellan gum	X	X	High-acyl form only
E 422	Glycerol	X		From plant origin. For plant extracts and flavourings
E 440 (i)*	Pectin	X	X	Milk-based products
E 464	Hydroxypropyl methyl cellulose	X	X	Encapsulation material for capsules
E 500	Sodium carbonate	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 gel or colloidal solution	X	X	For herbs and spices in dried powdered form Flavourings and propolis
E 553b	Talc	X	X	Coating agent for meat products
E 901	Beeswax	X		As a glazing agent for confectionary only. Beeswax from organic beekeeping
E 903	Carnauba wax	X		As a glazing agent for confectionary only. Only when derived from organic raw material
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

**SECTION B – Processing aids and other products, which may be used for processing of ingredients of agricultural origin from organic production**

Name	Preparation of foodstuffs of		Specific conditions
	plant origin	animal origin	
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		Drying of grapes
Sodium carbonate	X	X	
Lactic acid		X	For the regulation of the pH of the brine bath in cheese production
Citric acid	X	X	
Sodium hydroxide	X		For sugar(s) production. For oil production excluding olive oil production
Sulphuric acid	X	X	Gelatine production Sugar(s) production
Hydrochloric acid		X	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	Gelatine production
Hydrogen peroxide		X	Gelatine production
Carbon dioxide	X	X	
Nitrogen	X	X	
Ethanol	X	X	Solvent
Tannic acid	X		Filtration aid
Egg white albumen	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	Sticking agent for mead
Cellulose	X	X	Gelatine production
Diatomaceous earth	X	X	Gelatine production
Perlite	X	X	Gelatine production
Hazelnut shells	X		
Rice meal	X		
Beeswax	X		Releasing agent. Beeswax from organic beekeeping
Carnauba wax	X		Releasing agent. Only when derived from organic raw material

Name	Preparation of foodstuffs of		Specific conditions
	plant origin	animal origin	
Acetic acid/vinegar		X	Only when derived from organic production. For fish processing, only from biotechnological source, except if 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 extracts

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 VIIIa

### Products and substances authorised from use in organic products of the wine sector

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	
Point 6: Use	- Di-ammonium phosphate - Thiamine hydrochloride	
Point 7: Use	- Sulphur dioxide - Potassium bisulphite or potassium metabi-sulphite	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; 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; 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 - Plant proteins from wheat or peas - Isinglass - Egg white albumin - Tannins - Casein - 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	
Point 27: Addition	- Meta-tartaric acid	
Point 28: Use	- Acacia gum (2) (= gum arabic)	
Point 30: Use	- Potassium bitartrate	
Point 31: Use	- Cupric citrate	
Point 31: Use	- Copper sulphate	Authorised until 31 July 2015
Point 38: Use	- Oak chips	
Point 39: Use	- Potassium alginate	
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'

## Annex IX

### Ingredients of agricultural origin which have not been produced organically

#### 1 Unprocessed vegetable products as well as products derived therefrom by processes

##### 1.1 Edible fruits, nuts and seeds:

- |                             |                          |
|-----------------------------|--------------------------|
| – acorns                    | <i>Quercus</i> spp.      |
| – cola nuts                 | <i>Cola acuminata</i>    |
| – gooseberries              | <i>Ribes uva-crispa</i>  |
| – maracujas (passion fruit) | <i>Passiflora edulis</i> |
| – raspberries (dried)       | <i>Rubus idaeus</i>      |
| – red currants (dried)      | <i>Ribes rubrum</i>      |

##### 1.2 Edible spices and herbs:

- |                     |                              |
|---------------------|------------------------------|
| – pepper (Peruvian) | <i>Schinus molle</i> L.      |
| – horseradish seeds | <i>Armoracia rusticana</i>   |
| – lesser galanga    | <i>Alpinia officinarum</i>   |
| – safflower flowers | <i>Carthamus tinctorius</i>  |
| – watercress herb   | <i>Nasturtium officinale</i> |
| – pepper (Peruvian) | <i>Schinus molle</i> L.      |

##### 1.3 Miscellaneous:

Algae, including seaweed, permitted in non-organic foodstuffs preparation

#### 2 Vegetable products

##### 2.1 Fats and oils whether or not refined, but not chemically modified, derived from plants other than:

- |             |                               |
|-------------|-------------------------------|
| – cocoa     | – <i>Theobroma cacao</i>      |
| – coconut   | – <i>Cocos nucifera</i>       |
| – olive     | – <i>Olea europaea</i>        |
| – sunflower | – <i>Helianthus annuus</i>    |
| – palm      | – <i>Elaeis guineensis</i>    |
| – rape      | – <i>Brassica napus, rapa</i> |
| – safflower | – <i>Carthamus tinctorius</i> |
| – sesame    | – <i>Sesamum indicum</i>      |
| – soya      | – <i>Glycine max</i>          |

##### 2.2 The following sugars, starches and other products from cereals and tubers:

- fructose
- rice paper
- unleavened bread paper
- starch from rice and waxy maize, not chemically modified

##### 2.3 Miscellaneous:

- pea protein *Pisum* spp.
- rum, only obtained from cane sugar juice
- kirsch prepared on the basis of fruits and flavourings
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#### 3 Animal products

aquatic organisms, not originating from aquaculture, and permitted in no-organic foodstuffs preparation

- gelatin
- whey powder 'herasuola'

– casing