

Types of Permitted Substances (related to Article 3 (1))

1. Substances permitted for use in organic food, etc.

A. Organic agricultural and forest products

(1) Permitted substances for soil conditioning and crop breeding

No.	Substance	Conditions of Use
1	A) Farmyard and poultry manure [completely composted by-product such as Rice straw and fallen leaves and manure from livestock barn; hererinafter same as in this table] B) Composted livestock excrements C) Dried farmyard manure and dehydrated poultry manure	Must be compatible with the standard of compost and nutrient liquid made of livestock manure among cultivation methods of organic agricultural product certification standard determined and publicly announced by the Director General of the National Agricultural Products Quality Management Service under Article 9 (2).
2	Compost from plants or plant residues	Must be completely decomposed.
3	Compost from mushroom cultivation and vermiculture	Only the substances laid down in this table are allowed for materials of mushroom cultivation and vermiculture.
4	Humus from earthworms or insects	Only the substances laid down in this table are allowed as feed for earthworm and insects.
5	Organic by-products of food and textile factories	Must not contain synthetic additives.
6	Fertilizers made from by-products of organic farms	The addition of chemical substances or the use of chemical processes is prohibited.
7	Animal by-products from slaughterhouses and fish processors, such as blood meal, meat meal, bone meal and feather meal	The addition of chemical substances or the use of chemical processes is prohibited; antibiotics must not be detected.
8	Vegetable oil cakes, such as soybean meal (remaining byproduct after extracting oil from soy. Hereinafter same as in this table), rice bran oil cakes (remaining byproduct after extracting oil from plant raw materials. Hereinafter same as in this table)	(1) Must not contain genetically modified substances. (2) Chemical substances must not remain in final products. (3) The materials used Castor bean and its hull (meaning the by-products after extracting the substances from plant raw materials. Hereinafter same as this table) must not be over the maximum value of

		the hazardous ingredient, Ricin under Article 4 of the Act on Fertilizer Management publicly announced by the Minister of Rural Development Administration.
9	By-products of the sugar industry [including molasses, Vinasse (meaning byproduct after producing alcohol from sugar cane or sugar beet), food-grade sugar and glucose]	Must not be treated using harmful chemical substances.
10	By-products of industries that process ingredients from organic farming	Must not contain synthetic additives.
11	Urine	Must be used after sufficient fermentation and dilution.
12	Human excrements	(1) Must be completely fermented and decomposed. (2) Warm fermentation: Must be fermented for at least seven days at 50°C or higher. (3) Cold fermentation: Must be fermented for at least six months. (4) Must not be used on parts of agricultural or forest products intended for direct human consumption, such as green vegetables.
13	Naturally occurring biological organisms, including insects	
14	Guano (excrements of seabirds and bats, etc.)	The addition of chemical substances or the use of chemical processes is prohibited.
15	Straw, chaff, rice bran and wild grass	The addition of chemical substances or the use of chemical processes is prohibited in the case of making such substances into fertilizers.
16	a) Sawdust, bark and wood waste b) Wood charcoal and wood ash	Must be wood or raw wood mechanically processed and processed, produced from waste wood or by-products of the wood, free of paint, oil, and preservatives during processing
17	a) Potassium sulfate, langbeinite (rock salt formed due to the evaporation of salty water) or mineral salt	(1) Must be of natural origin and be processed through simple physical processes only.

	<ul style="list-style-type: none"> b) Chloride of lime c) Calcareous magnesium rock d) Magnesium rock e) Epsom salt (magnesium sulfate) and natural rock (calcium sulfate) f) Calcium carbonate of natural origin, including limestone g) Clay mineral (e.g. bentonite, perlite, zeolite and illite) h) Vermiculite (weathered biotite) i) Trace elements, such as boron, iron, manganese, copper, molybdenum and zinc 	(2) The minerals harmful to human health or the agricultural environment (e.g. asbestos ore and mercurial ore) shall not be used.
18	Rock potash and mined potassium salts	Must be of natural origin and be produced through simple physical processes only, and the chlorine content must be less than 60 percent.
19	Natural phosphate rock and aluminum calcium phosphate	Must be of natural origin and be produced through simple physical processes only, and the cadmium contained must not exceed 90mg/kg per kilogram when converted to phosphorous pentoxide (P ₂ O ₅).
20	Natural rock dust and powdered rock, or the liquid	<p>(1) The addition of chemical substances or the use of chemical processes is prohibited.</p> <p>(2) The use of rocks containing minerals harmful to human health or the agricultural environment is prohibited.</p>
21	Residues from the smelting of minerals [basic slag]	Must come from the smelting process of minerals (e.g. silicate fertilizers for which chemical substances are not used during production)
22	Sodium chloride (salt) and Seawater	<p>(1) Must be mined rock salt or bay salt. (Pesticide residues shall not be detected.)</p> <p>(2) Seawater is subject to the following conditions</p> <p>(a) Must be of natural origin</p>

		(b) Must be used for foliar fertilization (c) Only a minimum amount must be used so that salts not accumulated in soil.
23	Pyroligneous liquid	Must be in compliance with the Korean industrial standards publicly notified by the Director General of Korean Agency for Technology and Standards under Article 11 of Industrial Standardization Act.
24	Chitosan	Must be in compliance with the quality standards determined and publicly announced by the Director General of the National Agricultural Products Quality Management Service.
25	Microorganisms and microorganism extract	The addition of chemical substances or the use of chemical processes after the end of the cultivation of microorganisms is prohibited.
26	Peat, peat moss and peat moss extract	
27	Seaweed, seaweed extract and seaweed deposits	
28	Sulfur	
29	Stillage and stillage extract (ammonium stillage excluded)	
30	Chlorella (freshwater algae)	The addition of chemical substances or the use of chemical processes after the end of the cultivation of Chlorella is prohibited.

(2) Substances permitted for use in the control of diseases and pests

No	Substance	Conditions of Use
1	Chrysanthemum cinerariaefolium	Must be natural substances extracted from Chrysanthemum cinerariaefolium.
2	Derris extract	Must be natural substances extracted from Derris (Derris spp., Lonchocarpus spp. and Terphrosia spp).
3	Quassia extract	Must be natural substances extracted from Quassia amara.
4	Ryania extract	Must be natural substances extracted from Ryania speciosa.
5	Neem extract	Must be natural substances extracted from Neem (Azadirachta indica)

6	Salty water and bay salt	Pesticide residues shall not be detected.
7	Gelatine	Chemical processes, including chromium treatments, are prohibited.
8	Yolk (including egg yolk)	The addition of chemical substances or the use of chemical processes is prohibited.
9	Natural acid, such as vinegar	The addition of chemical substances or the use of chemical processes is prohibited.
10	Fermented products from <i>Aspergillus</i>	The addition of chemical substances or the use of chemical processes after the end of the cultivation of microorganisms is prohibited.
11	Pyroligneous liquid	Must be in compliance with the Korean industrial standards publicly announced by the Director General of Korea Agency for Technology and Standards under Article 11 of Industrial Standardization Act.
12	Tobacco tea (excluding pure nicotine)	Must be extracted using water.
13	Chitosan	Must be in compliance with the quality standards determined and publicly announced by the director general of the National Agricultural Products Quality Management Service.
14	Beeswax and propolis	
15	Animal and vegetable oil	The use of potassium hydroxide is allowed only for producing natural emulsifiers, and the use of it must be minimized and be less than the amount of the animal and vegetable oil used. It must be registered in the organic product production plan before use.
16	Seaweed, seaweed meal, seaweed extracts	
17	Lecithin	
18	Casein (proteinoid)	
19	Mushroom extract	
20	Chlorella (freshwater algae) extract	The addition of chemical substances or the use of chemical processes after the end of the cultivation of Chlorella is prohibited.
21	Natural plant (e.g. herbs) preparations (excluding tobacco)	
22	Fermented vegetable compost extract	(1) Must be produced with completely decomposed vegetable materials among

		the permitted substances listed in subparagraph 1 (a) (1)
		(2) Must be extracted only by water.
23	a) Copper salt b) Bordeaux mixture c) Copper hydroxide d) Copper oxychloride e) Burgundy mixture	Only a minimum amount must be used so that copper is not accumulated in soil.
24	Quicklime (calcium oxide) and slaked lime (calcium hydroxide)	Must not be sprayed directly onto soil.
25	Bordeaux mixture and lime-sulphur mixture	
26	Ethylene	Must be used for ripening kiwi, banana and persimmon.
27	Silicate and bentonite	Must be of natural origin, or be natural and produced through simple physical processes only.
28	Sodium silicate	Must be prepared using natural silica and sodium carbonate.
29	Diatomaceous earth	Must be of natural origin and be processed through simple physical processes only.
30	Powder of maifan stones and other minerals	(1) Must be of natural origin and be processed through simple physical processes only. (2) The use of minerals harmful to human health or the agricultural environment (e.g. asbestos ore and mercurial ore) is prohibited.
31	Iron phosphate	Only for use as molluscicides
32	Paraffin oil	
33	Sodium bicarbonate and potassium bicarbonate	
34	Potassium permanganate	Only for controlling blight in fruit trees
35	Sulfur	The use of sodium hydroxide is allowed only in the case of liquifying sulfur, and the use of it must be minimized and be less than the amount of the sulfur used. Must be recorded in the organic handling plan before use.
36	Microorganisms and microorganism extract	The addition of chemical substances or the use of chemical processes after the end of

		the cultivation of microorganisms is prohibited.
37	Natural enemies	Must not be species that may disrupt the ecosystem.
38	Sexual attractant (pheromone)	(1) Must not be applied directly onto crops. (2) Use only in traps
39	Metaldehyde	Must be put in a separate container, and must not be applied directly onto soil or crops. (Use only on traps.)
40	Carbon dioxide and nitrogen gas	Only for controlling the atmospheric concentration in fruit storages.
41	Potassium soaps	
42	Ethyl alcohol	Must be fermented alcohol.
43	Herbal and repellent plants	Must not be species that may disrupt the ecosystem.
44	Machine oil	(1) Only for controlling winter pests in fruit farms. (2) Must not be used directly on fruit during the harvest season.
45	Sterilized male insect	

B. Organic livestock products and organic processed products not intended for human consumption

(1) Ingredient feed used for producing organic assorted feed

Type	Subtype	Substances	Conditions of Use
Vegetable	Grain	(A) Corn, barley, wheat, sorghum, rye, oat, Japanese barnyard millet, triticale, buckwheat, lupin seed and legume (B) Primary processed products and starch of grains (including alfalfa starch) in (A) above.	<input type="radio"/> Must have organic agricultural product certification.
	Grain by-product (barnyard grass)	Grain powder, wheat bran, wheat shorts, barley bran, rice bran, fat-removed -rice bran, corn bran, sorghum bran, millet bran, pulse bran, peanut bran, cottonseed bran, oat bran, almond bran, and sunflower bran	<input type="radio"/> Must be made of organic agricultural by-products

	Pharmaceutical by-product	pharmaceutical by-products set forth by the Minister of Agriculture, Food and Rural Affairs	
	Fat and oil	corn oil, soybean oil, cottonseed oil, rapeseed oil, coconut oil, sunflower oil, palm oil and rice bran oil	
	Seed meal (protein)	Soybean cakes (including whole soybeans), perilla meal, rapeseed meal, cottonseed meal, peanut meal, red pepper seed meal, linseed oil meal, coconut meal, sunflower meal, castor bean meal, corn germ meal, wheat germ meal, bean curd meal, kapok meal, palm oil meal, gluten meal and distillers dried grains	
	Tuberous Root	Sweet potatoes, potatoes, artichokes, tapioca, white readishes and carrots	<input type="radio"/> Same as grains
	Food processing by-products	Legume processing by-products, molasses and fruits processing by-products	<input type="radio"/> Same as grain by-products
	Seaweed	Seaweed meal	<input type="radio"/> Must be of natural origin.
	Fiber	grass, wild grass, leaves, by-products of grain screening and forest products processing, rice straw, barley straw, straw made of other agricultural products, soiling feed crops, corncobs, sugar cane meal, sugar beet meal, tangerine meal and fermented feed	<input type="radio"/> Must have organic agricultural product certification. In the case of wild products, pesticide residues must not be detected.
Animal	Protein	fish meal, fish soluble-absorbed feed, milk and dairy products, meat and bone meal (except for ruminants)	<input type="radio"/> Must not be cultured (applicable only in the case of fish soluble-absorbed feed) or must be organic marine products.
	Mineral	bone meal, fish bone ashes and shell meal	<input type="radio"/> Must have a purity of at least 99 percent.
	Fat and oil	beef tallow and pork fat (except for ruminants)	<input type="radio"/> Must have a purity of at least 99 percent.

Mineral	Edible salt	rock salt and bay salt	<input type="radio"/> Must be natural. <i>Provided</i> , that, in case such materials are not available commercially, chemically fully purified similar substances may be used.
	Phosphate and calcium salts	monocalcium phosphate, dicalcium phosphate, tricalcium phosphate and limestone meal	
	Mineral additives	Sodium, chlorine, magnesium, sulfur, potassium, manganese, iron, copper, iodine, zinc, cobalt, fluorine, selenium, molybdenum, chromium salts (organic salts included)	
	Mineral compound	two or more types of minerals mixed or combined. (Only those processed as additives to feed are applicable.)	

(2) Supplementary feed used for producing organic assorted feed

Type	Substances	Conditions of Use
Acidifier	natural acidifiers, including lactic acid and formic acid	<input type="radio"/> Must be natural and of natural origin.
Anticoagulant	activated carbon	
Binder	natural binders	
Emulsifier	natural emulsifiers	
Antioxidant	natural antioxidants	
Fungicide	natural fungicides	
Flavor	natural flavors	
Coloring agent	natural coloring agents	
Extracting agent	Yucca extract, tourmaline, grass extract, seaweed extract and fruit extract	
Buffer	Sodium bicarbonate, magnesium oxide and magnesium oxide compound	
Oligosaccharide	Galactooligosaccharide, fructooligosaccharide, isomaltooligosaccharide, Soybean oligosaccharide, mannose oligosaccharide and other oligosaccharides	
Enzyme	Amylase, alkaline protease, xylanase, phytase, acidic protease, lipase, cellulase, neutral protease, protease, lactase and other enzymes and the compounds	
Probiotics	Enterococcus faecium, bacillus coagulants, bacillus subtilis, bifidobacterium pseudolongum, lactobacillus acidophilus, yeast and other probiotics	

Silicate	zeolite, bentonite, kaolin, illite and their compounds	Must be natural. <i>Provided, that,</i> in case such materials are commercially not available, chemically fully purified similar substances may be used.
Amino acid	Amino acetic acid, DL-alanine, L-lysine Hydrochloride, L-lysine sulfate, L-monosodium glutamate, 2-diamino-2-hydroxymethionine, DL-Tryptophan, L-Tryptophan, DL-Methionine, L-threonine and the compounds	
Vitamin (including provitamin)	Vitamin A, provitamin A, vitamin B1, vitamin B2, vitamin B6, vitamin B12, vitamin C, vitamin D, vitamin D2, vitamin D3, vitamin E, vitamin K, pantothenic acid, inositol, choline, niacin, biotin, folic acid and similar substances and compounds	

(3) Substances permitted for use in the disinfection of livestock housing and agricultural machinery and equipment

Among substances that have been authorized or registered as veterinary drugs and quasi-drugs according to Article 5 of the Rule on the Handling of Veterinary Drugs, etc., substances do not contain prohibited ingredients under the certification standard in accordance with Annex 3 and Annex 11. In this case substances must not make contact with livestock or feed when being used.

C. Organic processed food

(1) Substances permitted for use as food additives or processing aids

Name (Kor.)	Name (Eng.)	(INS)	Food Additive		Processing Aid	
			Per-mission	Allowed Products/Scope	Per-mission	Allowed Products/Scope
과산화수소	Hydrogen peroxide		×		○	cleaning or disinfecting agent used on the surface of food
구아검	Guar gum	412	○	All	×	
구연산	Citric acid	330	○	All	○	All
구연산삼나트륨	Trisodium citrate	331 (ii)	○	sausages, pasteurization of egg whites, dairy products and granular beverages	×	
구연산칼륨	Potassium citrate	332	○	All	×	
구연산칼슘	Calcium citrate	333	○	All	×	

규조토	Diatomaceous earth		×		○	filtration aid
글리세린	Glycerin	422	○	All (only glycerine of plant origin produced through hydrolysis permitted)	×	
퀼라야추출물	Quillaia Extract	999	×		○	sugar processing
레시틴	Lecithin	322	○	All (only lecithin produced without using bleach or organic solvents permitted)	×	
로커스트콩검	Locust bean gum	410	○	vegetable, dairy and meat products	×	
무수아황산	Sulfur dioxide	220	○	Fruit liquor	×	
밀납	Beeswax	901	×		○	releasing agent
백도토	Kaolin	559	×		○	clarification or filtration aid
벤토나이트	Bentonite	558	×		○	clarification or filtration aid
비타민 C	Vitamin C	300	○	All	×	
DL-사과산	DL-Malic acid	296	○	All	×	
산소	Oxygen	948	○	All	○	All
산탄검	Xanthan gum	415	○	fat products, fruits and vegetables, cakes, confectionery and salads	×	
수산화나트륨	Sodium hydroxide	524	○	grains	○	acidity regulator for sugar processing, and for fats and oils processing
수산화칼륨	Potassium hydroxide	525	×		○	acidity regulator for sugar and soy protein isolate processing
수산화칼슘	Calcium hydroxide	526	○	tortilla	○	acidity regulator

아라비아검	Arabic gum	414	○	vegetable, dairy and fat products	×	
알긴산	Alginic acid	400	○	All	×	
알긴산나트륨	Sodium alginate	401	○	All	×	
알긴산칼륨	Potassium alginate	402	○	All	×	
염화마그네슘	Magnesium chloride	511	○	legume products	○	coagulant
염화칼륨	Potassium chloride	508	○	fruits and vegetables, non-emulsified sauce and mustard products	×	
염화칼슘	Calcium chloride	509	○	fruits and vegetables, legume, fat, dairy and meat products	○	coagulant
오존수	Ozone water		×		○	cleaning or disinfecting agent used on the surface of food
이산화규소	Silicon dioxide	551	○	herbs, spices, seasonings and condiments	○	gel or colloidal solution
이산화염소(수)	Chlorine dioxide	926	×		○	cleaning or disinfecting agent used on the surface of food
차아염소산수	Hypochlorous Acid Water		×		○	cleaning or disinfecting agent used on the surface of food
이산화탄소	Carbon dioxide	290	○	All	○	All
인산나트륨	Sodium phosphate (Mono-,Di-, Tribasic)	339 (i)(ii) (iii)	○	processed cheese	×	

젖산	Lactic acid	270	○	fermented vegetable and dairy products and edible casings	○	coagulant for dairy products and brine acidity regulator for cheese processing
젖산칼슘	Calcium Lactate	327	○	granular beverages	×	
제일인산칼슘	Calcium phosphate, monobasic	341 (i)	○	flours	×	
제이인산칼륨	Potassium Phosphate, Dibasic	340 (ii)	○	coffee whitener	×	
조제해수염화 마그네슘	Crude Magnesium Chloride (Sea Water)		○	legumes	○	coagulant
젤라틴	Gelatin		×		○	wine, fruit and vegetable processing
젤란검	Gellan Gum	418	○	granular beverages	×	
L-주석산	L-Tartaric acid	334	○	wine	○	wine processing
L-주석산나트륨	Disodium L-tartrate	335	○	cakes, confectionery	○	All
L-주석산수소칼륨	Potassium L-bitartrate	336	○	grain products, cakes and confectionery	○	All
주정 (발효주정)	Ethanol (fermented)		×		○	All
질소	Nitrogen	941	○	All	○	All
카나우바왁스	Carnauba wax	903	×		○	releasing agent
카라기난	Carrageenan	407	○	vegetable and dairy products	×	
카라야검	Karaya gum	416	○	All	×	
카제인	Casein		×		○	wine processing
탄닌산	Tannic acid	181	×		○	filtration aid
탄산나트륨	Sodium carbonate	500 (i)	○	cakes, confectionery	○	for sugar processing and as neutralizing agent for dairy products

탄산수소나트륨	Sodium bicarbonate	500 (ii)	○	cakes, confectionery and liquid tea	×	
세스퀴탄산나트륨	Sodium sesquicarbonate	500 (iii)	○	cakes, confectionery	×	
탄산마그네슘	Magnesium carbonate	504 (i)	○	All	×	
탄산암모늄	Ammonium carbonate	503 (i)	○	grain products, cakes and confectionery	×	
탄산수소암모늄	Ammonium bicarbonate	503 (ii)	○	grain products, cakes and confectionery	×	
탄산칼륨	Potassium carbonate	501 (i)	○	grain products, cakes and confectionery	○	grape drying
탄산칼슘	Calcium carbonate	170 (i)	○	vegetable and dairy products (Calcium carbonate must not be used as coloring.)	○	All
d-토코페롤 (혼합형)	d-Tocopherol concentrate, mixed	306	○	fats and oils (D-Tocopherol must be used only as antioxidants.)	×	
트라가칸스검	Tragacanth gum	413	○	All	×	
퍼라이트	Perlite		×		○	filtration aid
펙틴	Pectin	440	○	vegetable and dairy products	×	
활성탄	Activated carbon		×		○	filtration aid
황산	Sulfuric acid	513	×		○	acidity regulator for sugar processing
황산칼슘	Calcium sulphate	516	○	cakes, confectionery, legume and yeast products	○	coagulant
천연향료	Natural flavoring substances and		○	All (But only the natural flavoring substances)	×	

	preparations			announced by the Minister of Food and Drug Safety in line with Article 7 (1) of the Food Sanitation Act with regard to the criteria and standards for food additives and which are extracted using water, fermented alcohol, carbon dioxide and physical methods must be used.)		
효소제제	Preparations of Microorganisms and Enzymes		○	All (Only enzyme preparations announced by the Minister of Food and Drug Safety in line with Article 7 (1) of the Food Sanitation Act with regard to the criteria and standards for food additives are allowed.)	○	All (Only enzyme preparations announced by the Minister of Food and Drug Safety in line with Article 7 (1) of the Food Sanitation Act with regard to the criteria and standards for food additives are allowed.)
영양강화제 및 강화제	Fortifying nutrients		○	products required to be used according to Article 7 (1) of the Food Sanitation Act and Article 4 (2) of the Livestock Products Sanitary Control Act (Only the	×	

				<p>fortifying nutrients and fortifiers announced by the Minister of Food and Drug Safety in line with Article 7 (1) of the Food Sanitation Act with regard to the criteria and standards for food additives are allowed.)</p>		
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2) Substances permitted for use as cleaning and disinfecting agents for equipment and facilities
Among food additives and processing aids under subparagraph 1 (C) 1), substances of which allowed products/scope is for cleaning and disinfection of food surface and the cleaning and disinfect agents for tools, etc related with the food additive standard announced by the Minister of Food and Drug safety under Article 7 (1) of Food Sanitation Act and type 1, 2, 3 cleaning agents determined in the hygiene product standard notified by the Minister of Food and Drug safety under Article 10 of Act on Hygiene Product Management are allowed.

D. In addition, the materials selected by the selection criteria and procedures of Annex 2 and announced by the director general of the National Agricultural Products Quality Management Service.

2. Substances that can be used for non-pesticide agricultural products

A. Non-pesticide agricultural products: Only substances available for pest control in accordance with subparagraph 1 (A) 2) can be used.

B. Non-antibiotics livestock products: General feeds can be used. However, the substances in Annex 11, subparagraph 3 (E) 2) should not be added to the feed.

3. Substances permitted for use as aids for producing organic agricultural materials

Permitted Substance	Conditions of Use
<ul style="list-style-type: none"> ○ Production aids included in Inert Ingredients List 3 or 4 established by the United States Environmental Protection Agency (EPA) laying down the inert ingredients permitted for use in pesticides 	<ul style="list-style-type: none"> ○ Must not chemically alter the substances permitted for use in the control of diseases and pests set forth in subparagraph 1 (A) (2), and must be used only as additives to boost effects, such as for pH adjustments. ○ When using production aids, producers, manufacturers, processors or handlers of organic agricultural materials must record in the organic handling plan or the organic handling plan for notification (or quality certification) that the amount of production aids except water do not exceed that of the main ingredients and manage the records. ○ Production aids listed in Inert Ingredients List 3 must have been designated as food additives by the Ministry of Food and Drug Safety.