Standard 1.3.3

Processing Aids

Purpose

This Standard regulates the use of processing aids in food manufacture, prohibiting their use in food unless there is a specific permission within this Standard.

Standard 1.3.1 regulates the use of food additives.

Table of Provisions

1 Interpretation

2 General prohibition on the use of processing aids

3 Generally permitted processing aids

3A Restriction on the use of carbon monoxide in the processing of fish

4 Permitted antifoam agents

5 Permitted catalysts

6 Permitted decolourants, clarifying, filtration and adsorbent agents

7 Permitted desiccating preparations

8 Permitted ion exchange resins

9 Permitted lubricants, release and anti-stick agents

10 Permitted carriers, solvents and diluents

11 Permitted processing aids used in packaged water and in water used as an ingredient in other foods

12 Permitted bleaching agents, washing and peeling agents

13 Permitted extraction solvents

14 Permitted processing aids with miscellaneous functions

15 Permitted enzymes of animal origin

16 Permitted enzymes of plant origin

17 Permitted enzymes of microbial origin

18 Permitted microbial nutrients and microbial nutrient adjuncts

19 Dimethyl dicarbonate as a microbial control agent

Clauses

1 Interpretation

(1) In this Standard –

**approved food for use of phag**e means food that –

(a) is ordinarily consumed in the same state as that in which it is sold; and

(b) is solid; and

(c) is one of the following –

(i) meat;

(ii) meat product;

(iii) fish;

(iv) fish product;

(v) fruit;

(vi) fruit product;

(vii) vegetable;

(viii) vegetable product;

(ix) cheese; and

(d) is not one of the following –

(i) nuts in the shell and whole;

(ii) raw fruits and vegetables that are intended for hulling, peeling or washing by the consumer.

**dairy ingredient** means an ingredient that is derived from a dairy source.

**EC number** (Enzyme Commission number) means the number which the Enzyme Commission uses to classify the principal enzyme activity.

**maximum permitted level** means the maximum amount of the processing aid which may be present in the food as specified in the Tables to clauses 3 to 18.

**processing aid** means a substance listed in clauses 3 to 19, where –

(a) the substance is used in the processing of raw materials, foods or ingredients, to fulfil a technological purpose relating to treatment or processing, but does not perform a technological function in the final food; and

(b) the proportion of the processing aid is no more than the maximum level necessary to achieve one or more technological functions under conditions of Good Manufacturing Practice (GMP).

**silica or silicates** includes sodium calcium polyphosphate silicate, sodium hexafluorosilicate, sodium metasilicate, sodium silicate, silica and modified silica that complies with a monograph specification in clause 2 or clause 3 of Standard 1.3.4.

(2) In this Standard, the letters ‘ATCC’ followed by a number is a reference to the number which the American Type Culture Collection uses to identify a prokaryote.

2 General prohibition on the use of processing aids

Unless expressly permitted in this Standard, processing aids must not be added to food.

3 Generally permitted processing aids

Subject to clause 3A, the following processing aids may be used in the course of manufacture of any food at a level necessary to achieve a function in the processing of that food –

(a) foods, including water; and

(b) food additives listed in Schedule 2 of Standard 1.3.1; and

(c) a processing aid specified in the Table to this clause.

Table to clause 3

|  |
| --- |
| Activated carbon |
| Ammonia |
| Ammonium hydroxide |
| Argon |
| Bone phosphate |
| Carbon monoxide |
| Diatomaceous earth |
| Ethoxylated fatty alcohols |
| Ethyl alcohol |
| Fatty acid polyalkylene glycol ester |
| Furcellaran |
| Hydrogenated glucose syrups |
| Isopropyl alcohol |
| Magnesium hydroxide |
| Oleic acid |
| Oleyl oleate |
| Oxygen |
| Perlite |
| Phospholipids |
| Phosphoric acid |
| Polyethylene glycols |
| Polyglycerol esters of fatty acids |
| Polyglycerol esters of interesterified ricinoleic acid |
| Polyoxyethylene 40 stearate |
| Potassium hydroxide |
| Propylene glycol alginate |
| Silica or silicates |
| Sodium hydroxide |
| Sodium lauryl sulphate |
| Sulphuric acid |
| Tannic acid |

3A Restriction on the use of carbon monoxide in the processing of fish

(1) Carbon monoxide must not be used in the processing of fish as a food where its use results in a change to or fixes the colour of the flesh of the fish.

(2) To avoid doubt, subclause (1) does not apply to carbon monoxide that is naturally present or naturally occurring in smoke used in the processing of fish as food.

(3) Fish that has been treated with carbon monoxide prior to the commencement of Item 1.2 of the Schedule to the Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation shall not be taken to comply with subclause 3A(1) by virtue of subclause 1(2) of Standard 1.1.1.

4 Permitted antifoam agents

The processing aids listed in the Table to this clause may be used as an antifoam agent in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 4

|  |  |
| --- | --- |
| Substance | Maximum permitted level (mg/kg) |
| Butanol | 10 |
| Oxystearin | GMP |
| Polydimethylsiloxane | 10 |
| Polyethylene glycol dioleate | GMP |
| Polyethylene/ polypropylene glycol copolymers | GMP |
| Soap | GMP |
| Sorbitan monolaurate | 1 |
| Sorbitan monooleate | 1 |

5 Permitted catalysts

The processing aids listed in the Table to this clause may be used as a catalyst in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 5

| Substance | Maximum permitted level (mg/kg) |
| --- | --- |
| Chromium (excluding chromium VI) | | 0.1 |
| Copper | | 0.1 |
| Molybdenum | | 0.1 |
| Nickel | | 1.0 |
| Peracetic acid | | 0.7 |
| Potassium ethoxide | | 1.0 |
| Potassium (metal) | | GMP |
| Sodium (metal) | | GMP |
| Sodium ethoxide | | 1.0 |
| Sodium methoxide | | 1.0 |

6 Permitted decolourants, clarifying, filtration and adsorbent agents

The processing aids listed in the Table to this clause may be used as decolourants, clarifying, filtration and adsorbent agents in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 6

|  |  |
| --- | --- |
| Substance | Maximum permitted level (mg/kg) |
| Acid clays of montmorillonite | GMP |
| Chloromethylated aminated styrene‑divinylbenzene resin | GMP |
| Co-extruded polystyrene and polyvinyl polypyrrolidone | GMP |
| Copper sulphate | GMP |
| Dimethylamine-epichlorohydrin copolymer | 150 |
| Dimethyldialkylammonium chloride | GMP |
| Divinylbenzene copolymer | GMP |
| High density polyethylene co‑extruded with kaolin | GMP |
| Iron oxide | GMP |
| Fish collagen, including Isinglass | GMP |
| Magnesium oxide | GMP |
| Modified polyacrylamide resins | GMP |
| Nylon | GMP |
| Phytates (including phytic acid, magnesium phytate & calcium phytate) | GMP |
| Polyester resins, cross-linked | GMP |
| Polyethylene | GMP |
| Polypropylene | GMP |
| Polyvinyl polypyrrolidone | GMP |
| Potassium ferrocyanide | 0.1 |

7 Permitted desiccating preparations

The processing aids listed in the Table to this clause may be used as desiccating preparations in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 7

|  |  |
| --- | --- |
| Substance | Maximum permitted level (mg/kg) |
| Aluminium sulphate | GMP |
| Ethyl esters of fatty acids | GMP |
| Short chain triglycerides | GMP |

8 Permitted ion exchange resins

The processing aids listed in the Table to this clause may be used as an ion exchange resin in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 8

| Substance | Maximum permitted level (mg/kg) |
| --- | --- |
| Completely hydrolysed copolymers of methyl acrylate and divinylbenzene | GMP |
| Completely hydrolysed terpolymers of methyl acrylate, divinylbenzene and acrylonitrile | GMP |
| Cross-linked phenol-formaldehyde activated with one or both of the following: triethylene tetramine and tetraethylenepentamine | GMP |
| Cross-linked polystyrene, chloromethylated, then aminated with trimethylamine, dimethylamine, diethylenetriamine, or dimethylethanolamine | GMP |
| Diethylenetriamine, triethylene-tetramine, or tetraethylenepentamin cross-linked with epichlorohydrin | GMP |
| Divinylbenzene copolymer | GMP |
| Epichlorohydrin cross-linked with ammonia | GMP |
| Epichlorohydrin cross-linked with ammonia and then quaternised with methyl chloride to contain not more than 18% strong base capacity by weight of total exchange capacity | GMP |
| Hydrolysed copolymer of methyl acrylate and divinylbenzene | GMP |
| Methacrylic acid-divinylbenzene copolymer | GMP |
| Methyl acrylate-divinylbenzene copolymer containing not less than 2% by weight of divinylbenzene, aminolysed with dimethylaminopropylamine | GMP |
| Methyl acrylate-divinylbenzene copolymer containing not less than 3.5% by weight of divinylbenzene, aminolysed with dimethylaminopropylamine | GMP |
| Methyl acrylate-divinylbenzene-diethylene glycol divinyl ether terpolymer containing not less than 3.5% by weight divinylbenzene and not more than 0.6% by weight of diethylene glycol divinyl ether, aminolysed with dimethaminopropylamine | GMP |
| Methyl acrylate-divinylbenzene-diethylene glycol divinyl ether terpolymer containing not less than 7% by weight divinylbenzene and not more than 2.3% by weight of diethylene glycol divinyl ether, aminolysed with dimethaminopropylamine and quaternised with methyl chloride | GMP |
| Reaction resin of formaldehyde, acetone, and tetraethylenepentamine | GMP |
| Regenerated cellulose, cross-linked and alkylated with epichlorohydrin and propylene oxide, then derivatised with carboxymethyl groups whereby the amount of epichlorohydrin plus propylene oxide is no more than 70% of the starting quantity of cellulose | GMP |
| Regenerated cellulose, cross-linked and alkylated with epichlorohydrin and propylene oxide, then derivatised with tertiary amine groups whereby the amount of epichlorohydrin plus propylene oxide is no more than 70% of the starting quantity of cellulose | GMP |
| Regenerated cellulose, cross-linked and alkylated with epichlorohydrin and propylene oxide, then derivatised with quaternary amine groups whereby the amount of epichlorohydrin plus propylene oxide is no more than 250% of the starting quantity of cellulose | GMP |
| Regenerated cellulose, cross-linked and alkylated with epichlorohydrin and propylene oxide, then sulphonated, whereby the amount of epichlorohydrin plus propylene oxide employed is no more than 250% of the starting quantity of cellulose | GMP |
| Styrene-divinylbenzene cross-linked copolymer, chloromethylated then aminated with dimethylamine and oxidised with hydrogen peroxide whereby the resin contains not more than 15% of vinyl N,N-dimethylbenzylamine-N-oxide and not more than 6.5% of nitrogen | GMP |
| Sulphite-modified cross-linked phenol-formaldehyde, with modification resulting in sulphonic acid groups on side chains | GMP |
| Sulphonated anthracite coal | GMP |
| Sulphonated copolymer of styrene and divinylbenzene | GMP |
| Sulphonated terpolymers of styrene, divinylbenzene, and acrylonitrile or methyl acrylate | GMP |
| Sulphonated tetrapolymer of styrene, divinylbenzene, acrylonitrile, and methyl acrylate derived from a mixture of monomers containing not more than a total of 2% by weight of acrylonitrile and methyl acrylate | GMP |

9 Permitted lubricants, release and anti-stick agents

The processing aids listed in the Table to this clause may be used as lubricants, release and anti-stick agents in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 9

|  |  |
| --- | --- |
| Substance | Maximum permitted level (mg/kg) |
| Acetylated mono- and diglycerides | 100 |
| Mineral oil based greases | GMP |
| Thermally oxidised soya-bean oil | 320 |
| White mineral oil | GMP |

**Editorial note:**

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) is currently reviewing mineral oils, including white mineral oil. To ensure consistency with the outcomes of this review, FSANZ will review the permission and nomenclature for white mineral oil once the JECFA review is completed.

10 Permitted carriers, solvents and diluents

The processing aids listed in the Table to this clause may be used as carriers, solvents and diluents in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 10

|  |  |
| --- | --- |
| Substance | Maximum permitted level (mg/kg) |
| Benzyl alcohol | 500 |
| Croscarmellose sodium | GMP |
| Ethyl acetate | GMP |
| Glycerol diacetate | GMP |
| Glyceryl monoacetate | GMP |
| Glycine | GMP |
| Isopropyl alcohol | 1000 |
| L-Leucine | GMP |
| Triethyl citrate | GMP |

11 Permitted processing aids used in packaged water and in water used as an ingredient in other foods

Subject to any qualifications in the Table to this clause, the processing aids listed in the Table may be used in the course of manufacture of packaged water and in water used as an ingredient in other foods provided the water contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 11

| Substance | Maximum permitted level (mg/kg) |
| --- | --- |
| Aluminium sulphate | GMP |
| Ammonium sulphate | GMP |
| Calcium hypochlorite | 5 (available chlorine) |
| Calcium sodium polyphosphate | GMP |
| Chlorine | 5 (available chlorine) |
| Chlorine dioxide | 1 |
| Cobalt sulphate | 2 |
| Copper sulphate | 2 |
| Cross-linked phenol-formaldehyde activated with one or both of triethylenetetramine or tetraethylenepentamine | GMP |
| Cross-linked polystyrene, first chloromethylated then aminated with trimethylamine, dimethylamine, diethylenetriamine or dimethylethanolamine | GMP |
| Diethylenetriamine, triethylenetetramine or tetraethylenepentamine cross-linked with epichlorohydrin | GMP |
| Ferric chloride | GMP |
| Ferric sulphate | GMP |
| Ferrous sulphate | GMP |
| Hydrofluorosilicic acid (fluorosilicic acid) (only in water used as an ingredient in other foods) | 1.5 (as fluoride) |
| Hydrolyzed copolymers of methyl acrylate and divinylbenzene | GMP |
| Hydrolyzed terpolymers of methyl acrylate, divinylbenzene and acrylonitrile | GMP |
| Hydrogen peroxide | 5 |
| 1-Hydroxyethylidene-1,1-diphosphonic acid | GMP |
| Lignosulphonic acid | GMP |
| Magnetite | GMP |
| Maleic acid polymers | GMP |
| Methyl acrylate-divinylbenzene copolymer containing not less than 2% divinylbenzene aminolysed with dimethylaminopropylamine | GMP |
| Methacrylic acid-divinylbenzene copolymer | GMP |
| Methyl acrylate-divinylbenzene-diethylene glycol divinyl ether terpolymer containing not less than 3.5% divinylbenzene and not more than 0.6% diethylene glycol divinyl ether, aminolysed with dimethylaminopropylamine | GMP |
| Modified polyacrylamide resins | GMP |
| Monobutyl ethers of polyethylene-polypropylene glycol | GMP |
| Ozone | GMP |
| Phosphorous acid | GMP |
| Polyacrylamide (polyelectrolytes) | 0.0002 (as acrylamide monomer) |
| Polyaluminium chloride | GMP |
| Polydimethyldiallyl ammonium chloride | GMP |
| Polyoxypropylene glycol | GMP |
| Potassium permanganate | GMP |
| Reaction resin of formaldehyde, acetone and tetraethylenepentamine | GMP |
| Regenerated cellulose, cross-linked and alkylated with epichlorohydrin and propylene oxide, then sulphonated whereby the amount of epichlorohydrin plus propylene oxide employed is no more than 250% of the starting quantity of cellulose | GMP |
| Silver ions | 0.01 |
| Sodium aluminate | GMP |
| Sodium fluoride (only in water used as an ingredient in other foods) | 1.5 (as fluoride) |
| Sodium fluorosilicate (Sodium silicofluoride) (only in water used as an ingredient in other foods) | 1.5 (as fluoride) |
| Sodium glucoheptonate | 0.08 (measured as cyanide) |
| Sodium gluconate | GMP |
| Sodium humate | GMP |
| Sodium hypochlorite | 5 (available chlorine) |
| Sodium lignosulphonate | GMP |
| Sodium metabisulphite | GMP |
| Sodium nitrate | 50 (as nitrate) |
| Sodium polymethacrylate | 2.5 |
| Sodium sulphite (neutral or alkaline) | GMP |
| Styrene-divinylbenzene cross-linked copolymer | 0.02 (as styrene) |
| Sulphonated copolymer of styrene and divinylbenzene | GMP |
| Sulphonated terpolymers of styrene, divinylbenzene acrylonitrile and methyl acrylate | GMP |
| Sulphite modified cross-linked phenol-formaldehyde | GMP |
| Tannin powder extract | GMP |
| Tetrasodium ethylene diamine tetraacetate | GMP |
| Zinc sulphate | GMP |

Editorial note:

This clause contains the permissions for fluoride to be used in water that is used as an ingredient in other foods, but not in water presented in packaged form. Standard 2.6.2 contains a voluntary permission to add fluoride to water presented in packaged form.

12 Permitted bleaching agents, washing and peeling agents

The processing aids listed in the Table to this clause may be used as bleaching agents, washing and peeling agents in the course of manufacture of the corresponding foods specified in the Table provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 12

|  |  |  |  |
| --- | --- | --- | --- |
| Substance | | Food | Maximum permitted level (mg/kg) |
| Benzoyl peroxide | | All foods | 40 (measured as benzoic acid) |
| Bromo-chloro-dimethylhydantoin | | All foods | 1.0 (available chlorine)  1.0 (inorganic bromide)  2.0 (dimethylhydantoin) |
| Calcium hypochlorite | | All foods | 1.0 (available chlorine) |
| Chlorine | | All foods | 1.0 (available chlorine) |
| Chlorine dioxide | All foods | | 1.0 (available chlorine) |
| Diammonium hydrogen orthophosphate | All foods | | GMP |
| Dibromo-dimethylhydantoin | All foods | | 2.0 (inorganic bromide)  2.0 (dimethylhydantoin) |
| 2-Ethylhexyl sodium sulphate | All foods | | 0.7 |
| Hydrogen peroxide | All foods | | 5 |
| Iodine | Fruits, vegetables and eggs | | GMP |
| Oxides of nitrogen | All foods | | GMP |
| Ozone | All foods | | GMP |
| Peracetic acid | All foods | | GMP |
| Sodium chlorite | All foods | | 1.0 (available chlorine) |
| Sodium dodecylbenzene sulphonate | All foods | | 0.7 |
| Sodium hypochlorite | All foods | | 1.0 (available chlorine) |
| Sodium laurate | All foods | | GMP |
| Sodium metabisulphite | Root and tuber vegetables | | 25 |
| Sodium peroxide | All foods | | 5 |
| Sodium persulphate | All foods | | GMP |
| Triethanolamine | Dried vine fruit | | GMP |

Editorial note:

FSANZ will review the extent of the use of Iodine as a processing aid three years from the date of the inclusion of Iodine as a processing aid in the Table to clause 12.

13 Permitted extraction solvents

The processing aids listed in the Table to this clause may be used as extraction solvents in the course of manufacture of the corresponding foods specified in the Table provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 13

|  |  |  |
| --- | --- | --- |
| Substance | Food | Maximum permitted level (mg/kg) |
| Acetone | Flavourings | 2 |
|  | Other foods | 0.1 |
| Benzyl alcohol | All foods | GMP |
| Butane | Flavourings | 1 |
|  | Other foods | 0.1 |
| Butanol | All foods | 10 |
| Cyclohexane | All foods | 1 |
| Dibutyl ether | All foods | 2 |
| Diethyl ether | All foods | 2 |
| Dimethyl ether | All foods | 2 |
| Ethyl acetate | All foods | 10 |
| Glyceryl triacetate | All foods | GMP |
| Hexanes | All foods | 20 |
| Isobutane | Flavourings | 1 |
|  | Other foods | 0.1 |
| Methanol | All foods | 5 |
| Methylene chloride | Decaffeinated coffee | 2 |
|  | Decaffeinated tea | 2 |
|  | Flavourings | 2 |
| Methylethyl ketone | All foods | 2 |
| Propane | All foods | 1 |
| Toluene | All foods | 1 |

14 Permitted processing aids with miscellaneous functions

The processing aids listed in the Table to this clause may be used for the corresponding function specified in the Table, provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Editorial note:

Where meat has been treated using lactoperoxidase from bovine milk, the mandatory labelling requirements in clause 4 of Standard 1.2.3 apply.

Table to clause 14

| Substance | Function | Maximum permitted level (mg/kg) |
| --- | --- | --- |
| Agarose ion exchange resin being agarose cross-linked and alkylated with epichlorohydrin and propylene oxide, then derivatised with tertiary amine groups whereby the amount of epichlorohydrin plus propylene oxide does not exceed 250% by weight of the starting quantity of agarose | Removal of specific proteins and polyphenols from beer | GMP |
| Ammonium persulphate | Yeast washing agent | GMP |
| Ammonium sulphate | Decalcification agent for edible casings | GMP |
| Butanol | Suspension agent for sugar crystals | 10 |
| Carbonic acid | Bleached tripe washing agent | GMP |
| Cetyl alcohol | Coating agent on meat carcasses and primal cuts to prevent desiccation | 1.0 |
| Chitosan sourced from *Aspergillus niger* | Manufacture of wine, beer, cider, spirits and food grade ethanol | GMP |
| Colours permitted in Schedules 2, 3 and 4 of Standard 1.3.1 | Applied to the outer surface of meat as a brand for the purposes of inspection or identification | GMP |
| Cupric citrate | Removal of sulphide compounds from wine | GMP |
| β-Cyclodextrin | Used to extract cholesterol from eggs | GMP |
| L-Cysteine (or HCl salt) | Dough conditioner | 75 |
| Ethyl acetate | Cell disruption of yeast | GMP |
| Ethylene diamine tetraacetic acid | Metal sequestrant for edible fats and oils and related products | GMP |
| Gibberellic acid | Barley germination | GMP |
| Gluteral | Manufacture of edible collagen casings | GMP |
| Hydrogen peroxide | Control of lactic acid producing microorganisms to stabilise the pH during the manufacture of –  (a) fermented milk;  (b) fermented milk products;  (c) cheese made using lactic acid producing microorganisms; and  (d) cheese products made using lactic acid producing microorganisms. | 5 |
|  | Inhibiting agent for dried vine fruits, fruit and vegetable juices, sugar, vinegar and yeast autolysate | 5 |
|  | Removal of glucose from egg products | 5 |
|  | Removal of sulphur dioxide | 5 |
| 1-Hydroxyethylidene-1,1-diphosphonic acid | Metal sequestrant for use with anti-microbial agents for meat, fruit and vegetables | GMP |
| Ice Structuring Protein type III HPLC 12 | Manufacture of ice cream and edible ices | 100 |
| Indole acetic acid | Barley germination | GMP |
| Lactoperoxidase from bovine milk  EC 1.11.1.7 | Reduce the bacterial population or inhibit bacterial growth on meat surfaces | GMP |
| *Listeria* phage P100 | Listericidal treatment for use on approved food for use of phage | GMP |
| Morpholine | Solubilising agent for coating mixtures on fruits | GMP |
| Oak | For use in the manufacture of wine | GMP |
| Octanoic acid | Anti-microbial agent for meat, fruit and vegetables | GMP |
| Paraffin | Coatings for cheese and cheese products | GMP |
| Polyvinyl acetate | Preparation of waxes for use in cheese and cheese products | GMP |
| Potassium bromate | Germination control in malting | Limit of determination of bromate |
| Sodium bromate | Germination control in malting | Limit of determination of bromate |
| Sodium chlorite | Anti-microbial agent for meat, fish, fruit and vegetables | Limit of determination of chlorite, chlorate, chlorous acid and chlorine dioxide |
| Sodium gluconate | Denuding, bleaching & neutralising tripe | GMP |
| Sodium glycerophosphate | Cryoprotectant for starter culture | GMP |
| Sodium metabisulphite | Dough conditioner | 60 |
|  | Removal of excess chlorine | 60 |
|  | Softening of corn kernels for starch manufacture | 60 (in the starch) |
|  | Treatment of hides for use in gelatine and collagen manufacture | GMP |
| Sodium sulphide | Treatment of hides for use in gelatine and collagen manufacture | GMP |
| Sodium sulphite | Dough conditioner | 60 |
| Sodium thiocyanate | Reduce and/or inhibit bacterial population on meat surfaces | GMP |
| Stearyl alcohol | Coating agent on meat carcasses and primal cuts to prevent desiccation | GMP |
| Sulphur dioxide | Control of nitrosodimethylamine in malting | 750 |
|  | Treatment of hides for use in gelatine and collagen manufacture | 750 |
| Sulphurous acid | Softening of corn kernels | GMP |
|  | Treatment of hides for use in gelatine and collagen manufacture | GMP |
| Triethanolamine | Solubilising agent for coating mixtures for fruits | GMP |
| Urea | Manufacture of concentrated gelatine solutions | 1.5 times the mass of the gelatine present |
|  | Microbial nutrient and microbial nutrient adjunct for the manufacture of all foods, except alcoholic beverages | GMP |
| Woodflour from untreated *Pinus radiata* | Gripping agent used in the treatment of hides | GMP |

Editorial note:

The limit of determination is the lowest concentration of a chemical that can be qualitatively detected using a laboratory method and/or item of laboratory equipment (that is, its presence can be detected but not quantified).

For Ice Structuring Protein type III HPLC 12 in the Table to clause 14, the manufacturer and patent holder, Unilever, has undertaken to voluntarily label products where the processing aid has been used in the manufacturing process. This labelling will appear on the product as ‘ice structuring protein’. Unilever will also have information about ice structuring protein available to consumers.

Editorial note:

If *Listeria* phage P100 has an ongoing technological function it ceases to be a processing aid as defined in subclause 1(1), and operates instead as a food additive. For example, *Listeria* phage P100 may have an ongoing technological function when introduced to liquids. Standard 1.3.1 does not permit the use of *Listeria* phage P100 as a food additive.

15 Permitted enzymes of animal origin

The processing aids listed in the Table to this clause may be used as enzymes in the course of manufacture of any food provided the enzyme is derived from the corresponding source specified in the Table.

Table to clause 15

|  |  |
| --- | --- |
| Enzyme | Source |
| Lipase, triacylglycerol  EC 3.1.1.3 | Bovine stomach; salivary glands or forestomach of calf, kid or lamb; porcine or bovine pancreas |
| Pepsin  EC 3.4.23.1 | Bovine or porcine stomach |
| Phospholipase A2  EC 3.1.1.4 | Porcine pancreas |
| Thrombin  EC 3.4.21.5 | Bovine or porcine blood |
| Trypsin  EC 3.4.21.4 | Porcine or bovine pancreas |

16 Permitted enzymes of plant origin

The processing aids listed in the Table to this clause may be used as enzymes in the course of manufacture of any food provided the enzyme is derived from the corresponding source specified in the Table.

Table to clause 16

| Enzyme | Source |
| --- | --- |
| α–Amylase  EC 3.2.1.1 | Malted cereals |
| β-Amylase  EC 3.2.1.2 | Sweet potato (*Ipomoea batatas)*  Malted cereals |
| Actinidin  EC 3.4.22.14 | Kiwifruit (*Actinidia deliciosa*) |
| Ficin  EC 3.4.22.3 | *Ficus* spp. |
| Fruit bromelain  EC 3.4.22.33 | Pineapple fruit (*Ananas comosus*) |
| Papain  EC 3.4.22.2 | *Carica papaya* |
| Stem bromelain  EC 3.4.22.32 | Pineapple stem (*Ananas comosus*) |

17 Permitted enzymes of microbial origin

(1) The processing aids listed in the Table to this clause may be used as enzymes in the course of manufacture of any food provided the enzyme is derived from the corresponding source or sources specified in the Table.

(2) The sources listed in the Table to this clause may contain additional copies of genes from the same organism.

Editorial note:

See Division 2 of Standard 1.5.2 – Food produced using Gene Technology for labelling requirements that apply to processing aids produced using gene technology.

Table to clause 17

| Enzyme | Source |
| --- | --- |
| α-Acetolactate decarboxylase  EC 4.1.1.5 | *Bacillus amyloliquefaciens*  *Bacillus subtilis*  *Bacillus subtilis*, containing the gene for α–Acetolactate decarboxylase isolated from *Bacillus brevis* |
| Aminopeptidase  EC 3.4.11.1 | *Aspergillus oryzae*  *Lactococcus lactis* |
| α-Amylase  EC 3.2.1.1 | *Aspergillus niger*  *Aspergillus oryzae*  *Bacillus amyloliquefaciens*  *Bacillus licheniformis*  *Bacillus licheniformis*, containing the gene for α-Amylase isolated from *Geobacillus stearothermophilus*  *Bacillus subtilis*  *Bacillus subtilis*, containing the gene for α-Amylase isolated  from *Geobacillus stearothermophilus*  *Geobacillus stearothermophilus* |
| β-Amylase  EC 3.2.1.2 | *Bacillus amyloliquefaciens*  *Bacillus subtilis* |
| Amylomaltase  EC 2.4.1.25 | *Bacillus amyloliquefaciens*, containing the gene for amylomaltase derived from *Thermus thermophilus* |
| α–Arabinofuranosidase  EC 3.2.1.55 | *Aspergillus niger* |
| Asparaginase  EC 3.5.1.1 | *Aspergillus niger*  *Aspergillus oryzae* |
| Carboxyl proteinase  EC 3.4.23.6 | *Aspergillus melleus*  *Aspergillus niger*  *Aspergillus oryzae*  *Rhizomucor miehei* |
| Carboxylesterase  EC 3.1.1.1 | *Rhizomucor miehei* |
| Catalase  EC 1.11.1.6 | *Aspergillus niger*  *Micrococcus luteus* |
| Cellulase  EC 3.2.1.4 | *Aspergillus niger*  *Penicillium funiculosum*  *Trichoderma reesei*  *Trichoderma viride* |
| Chymosin  EC 3.4.23.4 | *Aspergillus niger*  *Escherichia coli* K-12 strain GE81  *Kluyveromyces lactis* |
| Cyclodextrin glucanotransferase  EC 2.4.1.19 | *Paenibacillus macerans* |
| Dextranase  EC 3.2.1.11 | *Chaetomium gracile*  *Penicillium lilacinum* |
| Endo-arabinase  EC 3.2.1.99 | *Aspergillus niger* |
| Endo-protease  EC 3.4.21.26 | *Aspergillus niger* |
| β-Fructofuranosidase  EC 3.2.1.26 | *Aspergillus niger*  *Saccharomyces cerevisiae* |
| α-Galactosidase  EC 3.2.1.22 | *Aspergillus niger* |
| β-Galactosidase  EC 3.2.1.23 | *Aspergillus niger*  *Aspergillus oryzae*  *Bacillus circulans* ATCC 31382  *Kluyveromyces marxianus*  *Kluyveromyces lactis* |
| Glucan 1,3-β-glucosidase  EC 3.2.1.58 | *Trichoderma harzianum* |
| β-Glucanase  EC 3.2.1.6 | *Aspergillus niger*  *Aspergillus oryzae*  *Bacillus amyloliquefaciens*  *Bacillus subtilis*  *Disporotrichum dimorphosporum*  *Humicola insolens*  *Talaromyces emersonii*  *Trichoderma reesei* |
| Glucoamylase  EC 3.2.1.3 | *Aspergillus niger*  *Aspergillus oryzae*  *Rhizopus delemar*  *Rhizopus oryzae*  *Rhizopus niveus* |
| Glucose oxidase  EC 1.1.3.4 | *Aspergillus niger*  *Aspergillus oryzae,* containing the gene for glucose oxidase isolated from *Aspergillus niger* |
| α-Glucosidase  EC 3.2.1.20 | *Aspergillus oryzae*  *Aspergillus niger* |
| β-Glucosidase  EC 3.2.1.21 | *Aspergillus niger* |
| Glycerophospholipid cholesterol acyltransferase, protein engineered variant  EC 2.3.1.43 | *Bacillus licheniformis,* containing the gene for glycerophospholipid cholesterol acyltransferase isolated from *Aeromonas salmonicida* subsp. *salmonicida* |
| Hemicellulase endo-1,3-β-xylanase  EC 3.2.1.32 | *Humicola insolens* |
| Hemicellulase endo-1,4-β-xylanase  EC 3.2.1.8 | *Aspergillus niger*  *Aspergillus oryzae*  *Aspergillus oryzae*, containing the gene for Endo-1,4-β-xylanase isolated from *Aspergillus aculeatus*  *Aspergillus oryzae*, containing the gene for Endo-1,4-β-xylanase isolated from *Thermomyces lanuginosus*  *Bacillus amyloliquefaciens*  *Bacillus subtilis*  *Humicola insolens*  *Trichoderma reesei* |
| Hemicellulase multicomponent enzyme  EC 3.2.1.78 | *Aspergillus niger*  *Bacillus amyloliquefaciens*  *Bacillus subtilis*  *Trichoderma reesei* |
| Hexose oxidase  EC 1.1.3.5 | *Hansenula polymorpha,* containing the gene for Hexose oxidase isolated from *Chondrus crispus* |
| Inulinase  EC 3.2.1.7 | *Aspergillus niger* |
| Lipase, monoacylglycerol  EC 3.1.1.23 | *Penicillium camembertii* |
| Lipase, triacylglycerol  EC 3.1.1.3 | *Aspergillus niger*  *Aspergillus oryzae*  *Aspergillus oryzae*, containing the gene for Lipase, triacylglycerol isolated from *Fusarium oxysporum*  *Aspergillus oryzae*, containing the gene for Lipase, triacylglycerol isolated from *Humicola lanuginosa*  *Aspergillus oryzae*, containing the gene for Lipase, triacylglycerol isolated from *Rhizomucor miehei*  *Candida rugosa*  *Hansenula polymorpha,* containing the gene for Lipase, triacylglycerol isolated from *Fusarium heterosporum*  *Mucor javanicus*  *Penicillium roquefortii*  *Rhizopus arrhizus*  *Rhizomucor miehei*  *Rhizopus niveus*  *Rhizopus oryzae* |
| Lipase, triacylglycerol, protein engineered variant  EC 3.1.1.3 | *Aspergillus niger*, containing the gene for lipase, triacylglycerol isolated from *Fusarium culmorum* |
| Lysophospholipase  EC 3.1.1.5 | *Aspergillus niger* |
| Maltogenic α-amylase  EC 3.2.1.133 | *Bacillus subtilis* containing the gene for maltogenic α-amylase isolated from *Geobacillus stearothermophilus* |
| Maltotetraohydrolase, protein engineered variant  EC 3.2.1.60 | *Bacillus licheniformis*, containing the gene for maltotetraohydrolase isolated from *Pseudomonas stutzeri* |
| Metalloproteinase | *Aspergillus oryzae*  *Bacillus amyloliquefaciens*  *Bacillus coagulans*  *Bacillus subtilis* |
| Mucorpepsin  EC 3.4.23.23 | *Aspergillus oryzae*  *Aspergillus oryzae*, containing the gene for Aspartic proteinase isolated from *Rhizomucor meihei*  *Rhizomucor meihei*  *Cryphonectria parasitica* |
| Pectin lyase  EC 4.2.2.10 | *Aspergillus niger* |
| Pectinesterase  EC 3.1.1.11 | *Aspergillus niger*  *Aspergillus oryzae,* containing the gene for pectinesterase isolated from *Aspergillus aculeatus* |
| Phospholipase A1  EC 3.1.1.32 | *Aspergillus oryzae,* containing the gene for phospholipase A1 isolated from *Fusarium venenatum* |
| Phospholipase A2  EC 3.1.1.4 | *Aspergillus niger*, containing the gene isolated from porcine pancreas  *Streptomyces violaceoruber* |
| 3-Phytase  EC 3.1.3.8 | *Aspergillus niger* |
| 4-Phytase  EC 3.1.3.26 | *Aspergillus oryzae*, containing the gene for 4-phytase isolated from *Peniophora lycii* |
| Polygalacturonase or Pectinase multicomponent enzyme  EC 3.2.1.15 | *Aspergillus niger*  *Aspergillus oryzae*  *Trichoderma reesei* |
| Pullulanase  EC 3.2.1.41 | *Bacillus acidopullulyticus*  *Bacillus amyloliquefaciens*  *Bacillus licheniformis*  *Bacillus subtilis*  *Bacillus subtilis,* containing the gene for pullulanase isolated from *Bacillus acidopullulyticus*  *Klebsiella pneumoniae* |
| Serine proteinase  EC 3.4.21.14 | *Aspergillus oryzae*  *Bacillus amyloliquefaciens*  *Bacillus halodurans*  *Bacillus licheniformis*  *Bacillus subtilis* |
| Transglucosidase  EC 2.4.1.24 | *Aspergillus niger* |
| Transglutaminase  EC 2.3.2.13 | *Streptomyces mobaraensis* |
| Urease  EC 3.5.1.5 | *Lactobacillus fermentum* |
| Xylose isomerase  EC 5.3.1.5 | *Actinoplanes missouriensis*  *Bacillus coagulans*  *Microbacterium arborescens*  *Streptomyces olivaceus*  *Streptomyces olivochromogenes*  *Streptomyces murinus*  *Streptomyces rubiginosus* |

Editorial note:

*Bacillus* *amyloliquefaciens* is a separate species from *Bacillus subtilis*.

*Aspergillus niger* group covers strains known under the names *Aspergillus aculeatus, A. awamori, A. ficuum, A. foetidus, A. japonicus, A. phoenicis, A. saitor* and *A. usamii*.

*Trichoderma reesei* also known as *Trichoderma longibrachiatum*.

*Kluyveromyces marxianus* – former names *Saccharomyces fragilis* and *Kluyveromyces fragilis*.

*Kluyveromyces lactis –* former name *Saccharomyces lactis*.

*Rhizomucor miehei* – former name *Mucor miehei*.

*Micrococcus luteus* – former name *Micrococcus lysodeikticus*.

*Paenibacillus macerans* –former name *Bacillus macerans*.

*Talaromyces emersonii* – former name *Penicillium emersonii*.

*Klebsiella pneumoniae –* former name *Klebsiella aerogenes*.

*Streptomyces mobaraensis –* former name *Streptoverticillium mobaraensis*.

*Humicola lanuginosa* also known as *Thermomyces lanuginosus*.

*Mucor javanicus* also known as *Mucor circinelloides* f. *circinelloides*.

*Penicillium roquefortii* also known as *Penicillium roqueforti*.

*Hansenula polymorpha* also known as *Pichia angusta*.

*Geobacillus stearothermophilus –* former name *Bacillus stearothermophilus*.

4-Phytase also known as 6-phytase.

18 Permitted microbial nutrients and microbial nutrient adjuncts

The processing aids listed in the Table to this clause may be used as microbial nutrients or microbial nutrient adjuncts in the course of manufacture of any food.

Table to clause 18

|  |
| --- |
| Adenine |
| Adonitol |
| Ammonium sulphate |
| Ammonium sulphite |
| Arginine |
| Asparagine |
| Aspartic acid |
| Benzoic acid |
| Biotin |
| Calcium pantothenate |
| Calcium propionate |
| Copper sulphate |
| Cystine |
| Cysteine monohydrochloride |
| Dextran |
| Ferrous sulphate |
| Glutamic acid |
| Glycine |
| Guanine |
| Histidine |
| Hydroxyethyl starch |
| Inosine |
| Inositol |
| Manganese chloride |
| Manganese sulphate |
| Niacin |
| Nitric acid |
| Pantothenic acid |
| Peptone |
| Phytates |
| Polyvinylpyrrolidone |
| Pyridoxine hydrochloride |
| Riboflavin |
| Sodium formate |
| Sodium molybdate |
| Sodium tetraborate |
| Thiamin |
| Threonine |
| Uracil |
| Xanthine |
| Zinc chloride |
| Zinc sulphate |

19 Dimethyl dicarbonate as a microbial control agent

(1) Dimethyl dicarbonate may be added in the manufacture of a food listed in Column 1 in the Table at a concentration no more than the maximum permitted addition level in Column 2 in the Table.

(2) Dimethyl dicarbonate must not be present in the food as sold.

Table to clause 19

|  |  |
| --- | --- |
| Column 1 | Column 2 |
| Food | Maximum permitted addition level (amount of dimethyl dicarbonate/ amount of food) |
| Fruit and vegetable juices and fruit and vegetable juice product | 250 mg/kg |
| Water-based flavoured drinks | 250 mg/kg |
| Formulated beverages | 250 mg/kg |
| Wine, sparkling wine and fortified wine; and fruit wine, vegetable wine and mead (including cider and perry) | 200 mg/kg |

**Amendment History**

The Amendment History provides information about each amendment to the Standard. The information includes commencement or cessation information for relevant amendments.

These amendments are made under section 92 of the *Food Standards Australia New Zealand Act 1991* unless otherwise indicated. Amendments do not have a specific date for cessation unless indicated as such.

About this compilation

This is a compilation of Standard 1.3.3 as in force on **5 June 2014** (up to Amendment No. 148). It includes any commenced amendment affecting the compilation to that date.

Prepared by Food Standards Australia New Zealand on **5 June 2014**.

Uncommenced amendments or provisions ceasing to have effect

To assist stakeholders, the effect of any uncommenced amendments or provisions which will cease to have effect, may be reflected in the Standard as shaded boxed text with the relevant commencement or cessation date. These amendments will be reflected in a compilation registered on the Federal Register of Legislative Instruments including or omitting those amendments and provided in the Amendment History once the date is passed.

The following abbreviations may be used in the table below:

ad = added or inserted am = amended

exp = expired or ceased to have effect rep = repealed

rs = repealed and substituted

**Standard 1.3.3** was published in the Commonwealth of Australia Gazette No. P 30 on 20 December 2000 as part of Amendment 53 (F2008B00616 – 30 September 2008) and has been amended as follows:

| Clause affected | A’ment No. | FRLI registration  Gazette | Commencement  (Cessation) | How affected | Description of amendment |
| --- | --- | --- | --- | --- | --- |
| Table of Provs | 64 | F2008B00810  23 Dec 2008  FSC6  13 Dec 2002 | 13 Dec 2002 | am | Consequential amendment relating to change to clause 6 heading. |
| Table of Provs | 121 | F2011L00213  9 Feb 2011  FSC63  10 Feb 2011 | 10 Feb 2011 | ad, am | Consequential amendment relating to new clause 19. |
| Table of Provs | 144 | F2013L02039  3 Dec 2013  FSC 86  5 Dec 2013 | 5 June 2014 | ad | Consequential amendment relating to new clause 3A. |
| 1 | 88 | 5 Oct 2006  F2006L03270  FSC30  5 Oct 2006 | 5 Oct 2006 | am | Definition of ‘maximum permitted level’. |
| 1 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Reference in the definition of ‘maximum permitted level’. |
| 1 | 94 | F2007L04074  11 Oct 2007  FSC36  11 Oct 2007 | 11 Oct 2007 | rs | Definition of ‘EC number’. |
| 1 | 103 | F2008L03741  9 Oct 2008  FSC45  9 Oct 2008 | 9 Oct 2008 | ad | Definition of ‘silicates’. |
| 1 | 111 | F2009L03145  13 Aug 2009  FSC53  13 Aug 2009 | 13 Aug 2009 | am | Anomalies relating to silicas and silicates. |
| 1 | 117 | F2010L01841  29 June 2010  FSC59  1 July 2010 | 1 July 2010 | ad | New subclause to clarify the meaning of reference to ‘ATCC’. |
| 1 | 121 | F2011L00213  9 Feb 2011  FSC63  10 Feb 2011 | 10 Feb 2011 | am | Definition of ‘processing aid’ to include new clause 19. |
| 1 | 124 | F2011L01450  8 July 2011  FSC66  11 July 2011 | 11 July 2011 | rep, am | Definition of ‘GMP’ and a consequential amendment to the definition of ‘processing aid’. |
| 1 | 130 | F2012L00929  26 April 2012  FSC72  26 April 2012 | 26 April 2012 | ad | Definition of ‘dairy ingredient’. |
| 1 | 135 | F2012L02011  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | ad | Definition of ‘approved food for use of phage’. |
| 3 | 144 | F2013L02039  3 Dec 2013  FSC 86  5 Dec 2013 | 5 June 2014 | am | Consequential amendment relating to new clause 3A. |
| 3A | 144 | F2013L02039  3 Dec 2013  FSC 86  5 Dec 2013 | 5 June 2014 | ad | New clause on restriction of the use of carbon monoxide in the processing of fish. |
| Table to clause 3 | 70 | 24 Dec 2008  F2008B00817  FSC12  29 April 2004 | 29 April 2004 | ad | Entry for argon. |
| Table to clause 3 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| Table to clause 3 | 101 | F2008L03058  14 Aug 2008  FSC43  14 Aug 2008 | 14 Aug 2008 | rep | Editorial note after the Table. |
| Table to clause 3 | 111 | F2009L03145  13 Aug 2009  FSC53  13 Aug 2009 | 13 Aug 2009 | am | Anomalies relating to silicas and silicates. |
| Table to clause 4 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| Table to clause 5 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| 6 | 64 | F2008B00810  23 Dec 2008  FSC6  13 Dec 2002 | 13 Dec 2002 | rs | Clarification of purposed of clause to include adsorbent agents. |
| Table to clause 6 | 122 | F2011L00694  5 May 2011  FSC64  5 May 2011 | 5 May 2011 | am | Entry for polyvinyl polypyrrolidone to include co-extruded polystyrene. |
| Table to clause 7 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| Table to clause 8 | 58 | F200800796  10 Dec 2008  P28  20 Dec 2001 | 20 Dec 2001 | ad | Entries for carboxymethyl, quaternary amine and diethyl aminoethyl cellulose-based ion exchange resins. |
| Table to clause 8 | 103 | F2008L03741  9 Oct 2008  FSC45  9 Oct 2008 | 9 Oct 2008 | am | Wording for ‘does not exceed’. |
| Table to clause 8 | 103 | F2008L03741  9 Oct 2008  FSC45  9 Oct 2008 | 9 Oct 2008 | am | Entry for methyl acrylate-divinylbenzene-diethylene ether terpolymer. |
| Table to clause 8 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | am | Spelling of dimethylaminopropylamine. |
| 9 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | rs | Editorial note after the clause relating to white mineral oil. |
| Table to clause 9 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency in Table and Editorial note after Table. |
| Table to clause 10 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| 11 | 78 | F2005L01246  26 May 2005  FSC20,  26 May 2005 | 26 May 2005 | am | Spelling of phosphorous. |
| 11 | 110 | F2009L02678  16 July 2009  FSC52  16 July 2009 | 16 July 2009 | rs | Clause. |
| 11 | 124 | F2011L01450  8 July 2011  FSC66  11 July 2011 | 11 July 2011 | am | Clarification of meaning of the clause. |
| Table to clause 11 | 58 | F200800796  10 Dec 2008  P28  20 Dec 2001 | 20 Dec 2001 | rs | Entry for regenerated cellulose. |
| Table to clause 11 | 67 | F2008B00814  24 Dec 2008  FSC9  31 July 2003 | 31 July 2003 | am | Correction of minor typographical errors. |
| Table to clause 11 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| Table to clause 11 | 103 | F2008L03741  9 Oct 2008  FSC45  9 Oct 2008 | 9 Oct 2008 | am | Wording for ‘does not exceed’. |
| Table to clause 11 | 110 | F2009L02678  16 July 2009  FSC52  16 July 2009 | 16 July 2009 | ad | Entries for hydrofluorosilicic acid (fluorosilicic acid), sodium fluoride and sodium fluorosilicate (sodium silicofluoride) and Editorial note after the Table. |
| Table to clause 11 | 139 | F2013L00248  21 Feb 2013  FSC81  21 Feb 2013 | 21 February 2013 | am | Maximum permitted level for styrene-divinylbenzene cross-linked copolymer. |
| Table to clause 12 | 54 | F2008B00790  9 Dec 2008  P17,  14 June 2001 | 14 June 2001 | ad | Entry for bromo-chloro-dimethylhydantoin. |
| Table to clause 12 | 78 | F2005L01246  26 May 2005  FSC20,  26 May 2005 | 26 May 2005 | ad | Entry for iodine and related Editorial note. |
| Table to clause 12 | 101 | F2008L03058  14 Aug 2008  FSC43  14 Aug 2008 | 14 Aug 2008 | am | Editorial note after the Table. |
| Table to clause 12 | 131 | F2012L01060  22 May 2012  FSC73  24 May 2012 | 24 May 2012 | ad | Entry for dibromo-dimethylhydantoin. |
| Table to clause 13 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| Table to clause 13 | 130 | F2012L00929  26 April 2012  F2012L00930  26 April 2012  FSC72  26 April 2012 | 26 April 2012 | ad | Entries for dimethyl ether. |
| Table to clause 13 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | rs | Entries for dimethyl ether to form a single entry. |
| 14 | 65 | 23 Dec 2008  F2008B00812  FSC7  27 Feb 2003 | 27 Feb 2003 | ad | New Editorial note preceding the clause referring to permission for lactoperoxidase. |
| 14 | 124 | F2011L01450  8 July 2011  FSC66  11 July 2011 | 11 July 2011 | am | Clarification of meaning of the clause. |
| Table to clause 14 | 64 | F2008B00810  23 Dec 2008  FSC6  13 Dec 2002 | 13 Dec 2002 | am | Entry for ethylene oxide. |
| Table to clause 14 | 65 | 23 Dec 2008  F2008B00812  FSC7  27 Feb 2003 | 27 Feb 2003 | ad | Entry for sodium thiocyanate. |
| Table to clause 14 | 65 | 23 Dec 2008  F2008B00812  FSC7  27 Feb 2003 | 27 Feb 2003 | ad | Permission for lactoperoxidase. |
| Table to clause 14 | 70 | 24 Dec 2008  F2008B00817  FSC12  29 April 2004 | 29 April 2004 | ad | Entries for cupric citrate on a bentonite base and sodium chlorite and related Editorial note. |
| Table to clause 14 | 72 | F2008B00819  24 Dec 2008  FSC14  20 May 2004 | 20 May 2004 | am | Reference from ‘oak chips’ to refer to ‘oak’. |
| Table to clause 14 | 78 | F2005L01246  26 May 2005  FSC20,  26 May 2005 | 26 May 2005 | ad | Entries for 1-hydroxyethylidene-1,1-diphosphonic acid and octanoic acid. |
| Table to clause 14 | 83 | F2005L03673  24 Nov 2005  FSC25  24 Nov 2005 | 24 Nov 2005 | ad | Reference to Ice structuring protein type III HPLC 12 in table and in Editorial note after the Table. |
| Table to clause 14 | 88 | 5 Oct 2006  F2006L03270  FSC30  5 Oct 2006 | 5 Oct 2006 | rep | Entry ethylene oxide. |
| Table to clause 14 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency in Table and Editorial note before Table. |
| Table to 14 | 94 | F2007L04074  11 Oct 2007  FSC36  11 Oct 2007 | 11 Oct 2007 | rs | Entry for cupric citrate |
| Table to clause 14 | 96 | F2008L00523  21 Feb 2008  FSC38  21 Feb 2008 | 21 Feb 2008 | ad | Entry for agarose ion exchange resin. |
| Table to clause 14 | 101 | F2008L03058  14 Aug 2008  FSC43  14 Aug 2008 | 14 Aug 2008 | am | Editorial note after the Table. |
| Table to clause 14 | 124 | F2011L01450  8 July 2011  FSC66  11 July 2011 | 11 July 2011 | am | Entry for lactoperoxidase. |
| Table to clause 14 | 124 | F2011L01450  8 July 2011  FSC66  11 July 2011 | 11 July 2011 | ad | Entry for colours permitted in Schedules 2, 3 and 4 of Standard 1.3.1. |
| Table to clause 14 | 135 | F2012L02011  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | ad | Entry for *Listeria* phage P100 and a related Editorial note after the Table. |
| Table to clause 14 | 137 | F2012L02254  26 Nov 2012  FSC79  29 Nov 2012 | 29 Nov 2012 | am | Entry for hydrogen peroxide. |
| Table to clause 14 | 145 | F2014L00033  6 Jan 2014  FSC87  9 Jan 2014 | 9 Jan 2014 | ad | Entry for chitosan sourced from *Aspergillus niger*. |
| Table to clause 15 | 94 | F2007L04074  11 Oct 2007  FSC36  11 Oct 2007 | 11 Oct 2007 | rs | Table. |
| Table to clause 16 | 94 | F2007L04074  11 Oct 2007  FSC36  11 Oct 2007 | 11 Oct 2007 | rs | Table. |
| Table to clause 16 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | rs | Entry for bromelain and insert entries for stem bromelain and fruit bromelain. |
| 17 | 117 | F2010L01841  29 June 2010  FSC59  1 July 2010 | 1 July 2010 | ad | Editorial Note after the clause relating to labelling requirements for processing aids produced using gene technology. |
| Table to clause 17 | 58 | F200800796  10 Dec 2008  P28  20 Dec 2001 | 20 Dec 2001 | ad | Entries for 6-phytase and new source for Lipase, triacylglycerol. |
| Table to clause 17 | 58 | F200800796  10 Dec 2008  P28  20 Dec 2001 | 20 Dec 2001 | rs | Entry for phytase and pectinesterase. |
| Table to clause 17 | 59 | F2008B00797  10 Dec 2008  FSC1  9 May 2002 | 9 May 2002 | am | Entry for chymosin. |
| Table to clause 17 | 60 | F2008B00798  19 Dec 2008  FSC2  20 June 2002 | 20 June 2002 | am | Entry for lipase, triacylglycerol. |
| Table to clause 17 | 65 | 23 Dec 2008  F2008B00812  FSC7  27 Feb 2003 | 27 Feb 2003 | ad | New source for glucose oxidase. |
| Table to clause 17 | 66 | F2008B00813  23 Dec 2008  FSC8  22 May 2003 | 22 May 2003 | ad | Entry for transglucosidase. |
| Table to clause 17 | 67 | F2008B00814  24 Dec 2008  FSC9  31 July 2003 | 31 July 2003 | ad | New source for α-amylase. |
| Table to clause 17 | 67 | F2008B00814  24 Dec 2008  FSC9  31 July 2003 | 31 July 2003 | ad | Inclusion of alternate name for *Humicola lanuginosa* in Editorial note after the Table. |
| Table to clause 17 | 68 | F2008B00815  24 Dec 2008  FSC10  18 Sept 2003 | 18 Sept 2003 | ad | Entry for hexose oxidase. |
| Table to clause 17 | 70 | 24 Dec 2008  F2008B00817  FSC12  29 April 2004 | 29 April 2004 | ad | Entries for lysophospholipase and urease. |
| Table to clause 17 | 75 | F2008B00822  24 Dec 2008  FSC17  16 Dec 2004 | 16 Dec 2004 | ad | Entry for phospholipase A2. |
| Table to clause 17 | 83 | F2005L03673  24 Nov 2005  FSC25  24 Nov 2005 | 24 Nov 2005 | am | Entry for lipase, triacylglycerol. |
| Table to clause 17 | 86 | F2006L01578  25 May 2006  FSC28  25 May 2006 | 25 May 2006 | ad | New source for lipase, triacylglycerol in Table and Editorial note after the Table. |
| Table to clause 17 | 87 | F2006L02539  3 Aug 2006  FSC29  8 Aug 2006 | 8 Aug 2006 | ad | New source for lipase, triacylglycerol in Table and Editorial note after the Table. |
| Table to clause 17 | 87 | F2006L02539  3 Aug 2006  FSC29  8 Aug 2006 | 8 Aug 2006 | ad | Entry for phospholipase A1. |
| Table to clause 17 | 90 | F2006L03956  7 Dec 2006  FSC32  7 Dec 2006 | 7 Dec 2006 | ad | New source for lipase, triacylglycerol in Table and Editorial note after the Table |
| Table to 17 | 94 | F2007L04074  11 Oct 2007  FSC36  11 Oct 2007 | 11 Oct 2007 | rs | Table and Editorial note after the Table. |
| Table to clause 17 | 100 | F2008L02396  10 Jul 2008  FSC42  10 July 2008 | 10 July 2008 | ad | Entry for asparaginase. |
| Table to clause 17 | 104 | F2008L04541  4 Dec 2008  FSC46  4 De 2008 | 4 Dec 2008 | ad | New source for asparaginase. |
| Table to clause 17 | 107 | F2009L01618  30 Apr 2009  FSC49  30 April 2009 | 30 April 2009 | ad | New source for phospholipase A2. |
| Table to clause 17 | 108 | F2009L02066  28 May 2009  FSC50 28 May 2009 | 28 May 2009 | ad | New source for cellulase. |
| Table to clause 17 | 111 | F2009L03145  13 Aug 2009  FSC53  13 Aug 2009 | 13 Aug 2009 | rep, am | Duplicated entry for asparaginase and consequential amendment to ammonium chloride. |
| Table to clause 17 | 117 | F2010L01841  29 June 2010  FSC59  1 July 2010 | 1 July 2010 | ad | New source for β-galactosidase and entry for maltotetraohydrolase.. |
| Table to clause 17 | 119 | F2010L02542  30 Sept 2010  FSC61  30 Sept 2010 | 30 Sept 2010 | ad | Entry for a protein-engineered variant of triacylglycerol lipase. |
| Table to clause 17 | 125 | F2011L01830  7 Sept 2011  FSC67  8 Sept 2011 | 8 Sept 2011 | ad | Entry for glycerophospholipid cholesterol acyltransferase. |
| Table to clause 17 | 128 | F2011L01830  10 Jan 2012  FSC70  12 Jan 2012 | 12 January 2012 | ad | Entry for endo-protease. |
| Table to clause 17 | 131 | F2012L01060  22 May 2012  FSC73  24 May 2012 | 24 May 2012 | ad | Entry for amylomaltase. |
| Table to clause 17 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | am | Spelling of *Lactococcus*, *Micrococcus*, *Rhizopus* and *amyloliquefaciens*. |
| Table to clause 17 | 135 | F2012L02014  10 Oct 2012  FSC77  11 Oct 2012 | 11 Oct 2011 | am | Formatting error in Editorial note after the Table. |
| Table to clause 17 | 142 | 30 July 2013  F2013 L01465  FSC84  1 Aug 2012 | 1 Aug 2013 | rep | Entry for invertase. |
| Table to clause 17 | 142 | 30 July 2013  F2013 L01465  FSC84  1 Aug 2012 | 1 Aug 2013 | ad | Entry for β-Fructofuranosidase. |
| Table to clause 18 | 56 | F2008B00794  9 Dec 2008  P24  20 Sept 2001 | 20 Sept 2001 | ad | To insert an Australia only Standard for ethylene oxide until 30 September 2003. |
| Table to clause 18 | 70 | 24 Dec 2008  F2008B00817  FSC12  29 April 2004 | 29 April 2004 | ad | Entry for ammonium sulphite. |
| Table to clause 18 | 91 | 15 Feb 2007  F2007L00373  FSC33  15 Feb 2007 | 15 Feb 2007 | am | Errors and duplications, remove anomalies and improve consistency. |
| 19 | 121 | F2011L00213  9 Feb 2011  FSC63  10 Feb 2011 | 10 Feb 2011 | ad, am | New clause relating to dimethyl dicarbonate |