Schedule 16 Types of substances that may be used as food additives

Note 1 This instrument is a standard under the *Food Standards Australia New Zealand Act 1991* (Cth). The standards together make up the *Australia New Zealand Food Standards Code.* See also section 1.1.1—3.

Substances used as food additives are regulated by Standard 1.1.1 and Standard 1.3.1. This Standard lists substances for the definitions, in subsection 1.1.2—11(3), of ***additive permitted at GMP***, ***colouring permitted at GMP*** and ***colouring permitted to a maximum level***.

Note 2 The provisions of the Code that apply in New Zealand are incorporated in, or adopted under, the *Food Act 2014* (NZ). See also section 1.1.1—3.

S16—1 Name

This Standard is *Australia New Zealand Food Standards Code* – Schedule 16 – Types of substances that may be used as food additives.

Note Commencement:
This Standard commences on 1 March 2016, being the date specified as the commencement date in notices in the *Gazette* and the New Zealand Gazette under section 92 of the *Food Standards Australia New Zealand Act 1991* (Cth). See also section 93 of that Act.

S16—2 Additives permitted at GMP

For subsection 1.1.2—11(3), the additives permitted at GMP are the substances listed in the following table (first in alphabetical order, then in numerical order):

Additives permitted at GMP—alphabetical listing

Acetic acid, glacial	260
Acetic and fatty acid esters of glycerol	472a
Acetylated distarch adipate	1422
Acetylated distarch phosphate	1414
Acetylated oxidised starch	1451
Acid treated starch	1401
Adipic acid	355
Advantame	969
Agar	406
Alginic acid	400
Alkaline treated starch	1402
Aluminium silicate	559
Ammonium acetate	264
Ammonium alginate	403
Ammonium carbonates	503
Ammonium chloride	510
Ammonium citrates	380
Ammonium fumarate	368
Ammonium lactate	328
Ammonium malate	349
Ammonium phosphates	342
Ammonium salts of phosphatidic acid	442
Arabinogalactan (larch gum)	409
Ascorbic acid	300
Aspartame (technological use consistent with section 1.3.1—5 only)	951
Beeswax, white & yellow	901
Bentonite	558
Bleached starch	1403
Butane (for pressurised food containers only)	943a
Calcium acetate	263
Calcium alginate	404
Calcium aluminium silicate	556
Calcium ascorbate	302
Calcium carbonates	170
Calcium chloride	509
Calcium citrate	333
Calcium fumarate	367
Calcium gluconate	578
Calcium glutamate, Di-L-	623
Calcium hydroxide	526
Calcium lactate	327
Calcium lactylates	482
Calcium lignosulphonate (40-65)	1522
Calcium malates	352
Calcium oxide	529

Calcium phosphates	341
Calcium silicate	552
Calcium sulphate	516
Calcium tartrate	354
Carbon dioxide	290
Carnauba wax	903
Carrageenan	407
Cellulose, microcrystalline and powdered	460
Citric acid	330
Citric and fatty acid esters of glycerol	472c
Cupric sulphate	519
Dextrin roasted starch	1400
Diacetyltartaric and fatty acid esters of glycerol	472e
Disodium guanylate, 5′-	627
Disodium inosinate, 5′-	631
Disodium ribonucleotides, 5′-	635
Distarch phosphate	1412
Enzyme treated starches	1405
Erythorbic acid	315
Erythritol	968
Fatty acid salts of aluminium, ammonia, calcium, magnesium, potassium and sodium	470
Ferric ammonium citrate	381
Ferrous gluconate	579
*Permitted flavouring substances, excluding quinine and caffeine	-
Fumaric acid	297
Gellan gum	418
Glucono delta-lactone	575
Glycerin (glycerol)	422
Guar gum	412
Gum arabic (Acacia)	414
Hydrochloric acid	507
Hydroxypropyl cellulose	463
Hydroxypropyl distarch phosphate	1442
Hydroxypropyl methylcellulose	464
Hydroxypropyl starch	1440
Isobutane (for pressurised food containers only)	943b
Isomalt	953
Karaya gum	416
L-glutamic acid	620
Lactic acid	270
Lactic and fatty acid esters of glycerol	472b
Lactitol	966
Lecithin	322
Locust bean (carob bean) gum	410
Lysozyme	1105
Magnesium carbonates	504
Magnesium chloride	511
Magnesium glutamate, Di-L-	625
Magnesium lactate	329
Magnesium phosphates	343
Magnesium silicates	553
Magnesium sulphate	518
Malic acid	296
Maltitol & maltitol syrup	965
Mannitol	421
Metatartaric acid	353
Methyl cellulose	461
Methyl ethylcellulose	465
Mono- and diglycerides of fatty acids	471
Monoammonium glutamate, L-	624
Monopotassium glutamate, L-	622
Monosodium glutamate, L-	621
Monostarch phosphate	1410
Nitrogen	941
Neotame (technological use consistent with section 1.3.1—5 only)	961
Nitrous oxide	942
Octafluorocyclobutane (for pressurised food containers only)	946
Oxidised starch	1404

Pectins	440
Petrolatum (petroleum jelly)	905b
Phosphated distarch phosphate	1413
Polydextroses	1200
Polydimethylsiloxane	900a
Polyethylene glycol 8000	1521
Polyoxyethylene (20) sorbitan monooleate	433
Polyoxyethylene (20) sorbitan monostearate	435
Polyoxyethylene (20) sorbitan tristearate	436
Polyphosphates	452
Potassium acetate or potassium diacetate	261
Potassium adipate (Salt reduced and low sodium foods only)	357
Potassium alginate	402
Potassium ascorbate	303
Potassium carbonates	501
Potassium chloride	508
Potassium citrates	332
Potassium fumarate	366
Potassium gluconate	577
Potassium lactate	326
Potassium malates	351
Potassium phosphates	340
Potassium sodium tartrate	337
Potassium sulphate	515
Potassium tartrates	336
Processed eucheuma seaweed	407a
Propane (for pressurised food containers only)	944
Propylene glycol	1520
Propylene glycol alginate	405
Propylene glycol esters of fatty acids	477
Pyrophosphates	450
Shellac	904
Silicon dioxide (amorphous)	551
Sodium acetates	262
Sodium alginate	401
Sodium aluminosilicate	554
Sodium ascorbate	301
Sodium carbonates	500
Sodium carboxymethylcellulose	466
Sodium citrates	331
Sodium erythorbate	316
Sodium fumarate	365
Sodium gluconate	576
Sodium lactate	325
Sodium lactylates	481
Sodium malates	350
Sodium phosphates	339
Sodium sulphates	514
Sodium tartrate	335
Sorbitan monostearate	491
Sorbitan tristearate	492
Sorbitol	420
Starch acetate	1420
Starch sodium octenylsuccinate	1450
Stearic acid	570
Sucralose (technological use consistent with section 1.3.1—5 only)	955
Sucrose esters of fatty acids	473
Tara gum	417
Tartaric acid	334
Tartaric, acetic and fatty acid esters of glycerol (mixed)	472f
Thaumatin	957
Tragacanth gum	413
Triacetin	1518
Triphosphates	451
Xanthan gum	415
Xylitol	967
Yeast mannoproteins	455

–	*Permitted flavouring substances, excluding quinine and caffeine
170	Calcium carbonates
260	Acetic acid, glacial
261	Potassium acetate or potassium diacetate
262	Sodium acetates
263	Calcium acetate
264	Ammonium acetate
270	Lactic acid
290	Carbon dioxide
296	Malic acid
297	Fumaric acid
300	Ascorbic acid
301	Sodium ascorbate
302	Calcium ascorbate
303	Potassium ascorbate
315	Erythorbic acid
316	Sodium erythorbate
322	Lecithin
325	Sodium lactate
326	Potassium lactate
327	Calcium lactate
328	Ammonium lactate
329	Magnesium lactate
330	Citric acid
331	Sodium citrates
332	Potassium citrates
333	Calcium citrate
334	Tartaric acid
335	Sodium tartrate
336	Potassium tartrates
337	Potassium sodium tartrate
339	Sodium phosphates
340	Potassium phosphates
341	Calcium phosphates
342	Ammonium phosphates
343	Magnesium phosphates
349	Ammonium malate
350	Sodium malates
351	Potassium malates
352	Calcium malates
353	Metatartaric acid
354	Calcium tartrate
355	Adipic acid
357	Potassium adipate (Salt reduced and low sodium foods only)
365	Sodium fumarate
366	Potassium fumarate
367	Calcium fumarate
368	Ammonium fumarate
380	Ammonium citrates
381	Ferric ammonium citrate
400	Alginic acid
401	Sodium alginate
402	Potassium alginate
403	Ammonium alginate
404	Calcium alginate
405	Propylene glycol alginate
406	Agar
407	Carrageenan
407a	Processed eucheuma seaweed
409	Arabinogalactan (larch gum)
410	Locust bean (carob bean) gum
412	Guar gum
413	Tragacanth gum
414	Gum arabic (Acacia)
415	Xanthan gum
416	Karaya gum
417	Tara gum
418	Gellan gum
420	Sorbitol
421	Mannitol
422	Glycerin (glycerol)
433	Polyoxyethylene (20) sorbitan monooleate
435	Polyoxyethylene (20) sorbitan monostearate
436	Polyoxyethylene (20) sorbitan tristearate
440	Pectins

442	Ammonium salts of phosphatidic acid
450	Pyrophosphates
451	Triphosphates
452	Polyphosphates
455	Yeast mannoproteins
460	Cellulose, microcrystalline and powdered
461	Methyl cellulose
463	Hydroxypropyl cellulose
464	Hydroxypropyl methylcellulose
465	Methyl ethylcellulose
466	Sodium carboxymethylcellulose
470	Fatty acid salts of aluminium, ammonia, calcium, magnesium, potassium and sodium
471	Mono- and diglycerides of fatty acids
472a	Acetic and fatty acid esters of glycerol
472b	Lactic and fatty acid esters of glycerol
472c	Citric and fatty acid esters of glycerol
472e	Diacetyltartaric and fatty acid esters of glycerol
472f	Tartaric, acetic and fatty acid esters of glycerol (mixed)
473	Sucrose esters of fatty acids
477	Propylene glycol esters of fatty acids
481	Sodium lactylates
482	Calcium lactylates
491	Sorbitan monostearate
492	Sorbitan tristearate
500	Sodium carbonates
501	Potassium carbonates
503	Ammonium carbonates
504	Magnesium carbonates
507	Hydrochloric acid
508	Potassium chloride
509	Calcium chloride
510	Ammonium chloride
511	Magnesium chloride
514	Sodium sulphates
515	Potassium sulphate
516	Calcium sulphate
518	Magnesium sulphate
519	Cupric sulphate
526	Calcium hydroxide
529	Calcium oxide
551	Silicon dioxide (amorphous)
552	Calcium silicate
553	Magnesium silicates
554	Sodium aluminosilicate
556	Calcium aluminium silicate
558	Bentonite
559	Aluminium silicate
570	Stearic acid
575	Glucono delta-lactone
576	Sodium gluconate
577	Potassium gluconate
578	Calcium gluconate
579	Ferrous gluconate
620	L-glutamic acid
621	Monosodium glutamate, L-
622	Monopotassium glutamate, L-
623	Calcium glutamate, Di-L-
624	Monoammonium glutamate, L-
625	Magnesium glutamate, Di-L-
627	Disodium guanylate, 5′-
631	Disodium inosinate, 5′-
635	Disodium ribonucleotides, 5′-
900a	Polydimethylsiloxane
901	Beeswax, white & yellow
903	Carnauba wax
904	Shellac
905b	Petrolatum (petroleum jelly)
941	Nitrogen
942	Nitrous oxide
943a	Butane (for pressurised food containers only)
943b	Isobutane (for pressurised food containers only)
944	Propane (for pressurised food containers only)
946	Octafluorocyclobutane (for pressurised food containers only)
951	Aspartame (technological use consistent with section 1.3.1—5 only)
953	Isomalt

955	Sucralose (technological use consistent with section 1.3.1—5 only)
957	Thaumatin
961	Neotame (technological use consistent with section 1.3.1—5 only)
965	Maltitol & maltitol syrup
966	Lactitol
967	Xylitol
968	Erythritol
969	Advantame
1105	Lysozyme
1200	Polydextroses
1400	Dextrin roasted starch
1401	Acid treated starch
1402	Alkaline treated starch
1403	Bleached starch
1404	Oxidised starch
1405	Enzyme treated starches
1410	Monostarch phosphate
1412	Distarch phosphate
1413	Phosphated distarch phosphate
1414	Acetylated distarch phosphate
1420	Starch acetate
1422	Acetylated distarch adipate
1440	Hydroxypropyl starch
1442	Hydroxypropyl distarch phosphate
1450	Starch sodium octenylsuccinate
1451	Acetylated oxidised starch
1518	Triacetin
1520	Propylene glycol
1521	Polyethylene glycol 8000
1522	Calcium lignosulphonate (40-65)

S16—3 Colourings permitted at GMP

(1) For section subsection 1.1.2—11(3), the *colourings permitted at GMP are the substances listed in the following table (first in alphabetical order, then in numerical order):

Colouring permitted at GMP—alphabetical listing

Alkanet (& Alkannin)	103
Anthocyanins	163
Beet Red	162
Caramel I – plain	150a
Caramel II – caustic sulphite process	150b
Caramel III –ammonia process	150c
Caramel IV – ammonia sulphite process	150d
Carotenal, b-apo-8′-	160e
Carotenes	160a
Carotenoic acid, b-apo-8′-, methyl or ethyl esters	160f
Chlorophylls	140
Chlorophylls, copper complexes	141
Cochineal and carmines	120
Curcumins	100
Flavoxanthin	161a
Iron oxides	172
Kryptoxanthin	161c
Lutein	161b
Lycopene	160d
Paprika oleoresins	160c
Rhodoxanthin	161f
Riboflavins	101
Rubixanthan	161d
Saffron, crocetin and crocin	164
Titanium dioxide	171
Vegetable carbon	153
Violoxanthin	161e

Colouring permitted at GMP—numerical listing

100	Curcumins	160e	Carotenal, b-apo-8′-
101	Riboflavins	160f	Carotenoic acid, b-apo-8′-, methyl or ethyl esters
103	Alkanet (& Alkannin)	161a	Flavoxanthin
120	Cochineal and carmines	161b	Lutein
140	Chlorophylls	161c	Kryptoxanthin
141	Chlorophylls, copper complexes	161d	Rubixanthan
150a	Caramel I – plain	161e	Violoxanthin
150b	Caramel II – caustic sulphite process	161f	Rhodoxanthin
150c	Caramel III – ammonia process	162	Beet Red
150d	Caramel IV – ammonia sulphite process	163	Anthocyanins
153	Vegetable carbon	164	Saffron, crocetin and crocin
160a	Carotenes	171	Titanium dioxide
160c	Paprika oleoresins	172	Iron oxides
160d	Lycopene		

S16—4 Colourings permitted to a maximum level

For subsection 1.1.2—11(3), the colourings permitted to a maximum level are the substances listed in the following table (first in alphabetical order, then in numerical order):

Note See subsection 1.3.1—4(3), which establishes a maximum level for all colourings used in a food

Colourings permitted to maximum level—alphabetical listing

Allura red AC	129	Green S	142
Azorubine / Carmoisine	122	Indigotine	132
Brilliant black BN	151	Ponceau 4R	124
Brilliant blue FCF	133	Quinoline yellow	104
Brown HT	155	Sunset yellow FCF	110
Fast green FCF	143	Tartrazine	102

Colourings permitted to maximum level—numerical listing

102	Tartrazine	132	Indigotine
104	Quinoline yellow	133	Brilliant blue FCF
110	Sunset yellow FCF	142	Green S
122	Azorubine / Carmoisine	143	Fast green FCF
124	Ponceau 4R	151	Brilliant black BN
129	Allura red AC	155	Brown HT

Amendment History

The Amendment History provides information about each amendment to the Schedule. 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 compilation No. 1 of Schedule 16 as in force on **13 April 2017** (up to Amendment No. 168). It includes any commenced amendment affecting the compilation to that date.

Prepared by Food Standards Australia New Zealand on **13 April 2017**.

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 Schedule 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 Legislation 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

Schedule 16 was published in the Food Standards Gazette No. FSC96 on 10 April 2015 as part of Amendment 154 (F2015L00442 –- 1 April 2015) and has since been amended as follows:

Section affected	A'ment No.	FRL registration Gazette	Commencement (Cessation)	How affected	Description of amendment
S16—3	168	F2017L00414 11 April 2017 FSC110 13 April 2017	13 April 2017	am	Heading (colouring) to correct inconsistency with defined term.