

## **STANDARD 1.3.2**

### **VITAMINS AND MINERALS**

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#### **Purpose**

This Standard regulates the addition of vitamins and minerals to foods. Standards contained elsewhere in this Code also regulate claims and the addition of vitamins and minerals to specific foods, such as, the mandatory addition of thiamin and folic acid to wheat flour for making bread (Australia only) and the mandatory replacement of non-iodised salt with iodised salt in bread in Standard 2.1.1, the addition of vitamin D to table edible oil spreads and margarine in Standard 2.4.2, formulated caffeinated beverages in Standard 2.6.4, special purpose foods standardised in Part 2.9 and the addition of iodine to certain salt products in Standard 2.10.2.

#### **Table of Provisions**

1	Interpretation
2	Prohibition on adding vitamins and minerals to food
3	Permitted addition of vitamins and minerals to food
4	Claims in relation to the vitamin and mineral content of foods listed in the Table to clause 3
5	Calculation of maximum quantity of a vitamin or mineral which may be claimed in a reference quantity of food

#### **Clauses**

##### **1 Interpretation**

In this Standard –

**reference quantity** means –

- (a) for a food mentioned in the Table to clause 3 –
  - (i) the quantity specified in the Table for the food or,
  - (ii) for a food that requires dilution or reconstitution according to directions – the quantity of the food that, when diluted or reconstituted, produces the quantity mentioned in column 2 of the Table; or
- (b) for all other foods –
  - (i) a normal serving; or
  - (ii) for a food that requires dilution, reconstitution, draining or preparation according to directions, the quantity of the food which when diluted, reconstituted, drained or prepared produces a normal serving.

##### **2 Prohibition on adding vitamins and minerals to food**

A vitamin or mineral must not be added to a food unless the –

- (a) addition of that vitamin or mineral is specifically permitted in this Code; and
- (b) vitamin or mineral is in a permitted form specified in the Schedule to Standard 1.1.1, unless stated otherwise in this Code.

### 3 Permitted addition of vitamins and minerals to food

A vitamin or mineral specified in column 3 of the Table to this clause may be added to a food specified in column 1 in relation to that vitamin or mineral, provided that the total of the naturally occurring and added quantity of that vitamin or mineral present in a reference quantity of the food, is no more than the quantity specified in column 5 in relation to that vitamin or mineral.

**Table to clause 3**

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
<b>Cereals and cereal products</b>				
Biscuits containing not more than 200 g/kg fat and not more than 50 g/kg sugars	35 g	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin E Folate Calcium Iron Magnesium Zinc	0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 2.5 mg (25%) 100 µg (50%) 200 mg (25%) 3.0 mg (25%) 80 mg (25%) 1.8 mg (15%)	
Bread	50 g	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin E Iron Magnesium Zinc	0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 2.5 mg (25%) 3.0 mg (25%) 80 mg (25%) 1.8 mg (15%)	
– bread that contains no wheat flour		Folate	100 µg (50%)	
Breakfast cereals, as purchased	A normal serving	Carotene forms of Vitamin A Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin C Vitamin E Folate Calcium Iron – except ferric sodium edetate Magnesium Zinc	200 µg (25%) 0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 10 mg (25%) 2.5 mg (25%) 100 µg (50%) 200 mg (25%) 3.0 mg (25%) 80 mg (25%) 1.8 mg (15%)	

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
Cereal flours	35 g	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin E Folate Iron Magnesium Zinc	0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 2.5 mg (25%) 100 µg (50%) 3.0 mg (25%) 80 mg (25%) 1.8 mg (15%)	
Pasta	That quantity which is equivalent to 35 g of uncooked dried Pasta	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin E Folate Iron Magnesium Zinc	0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 2.5 mg (25%) 100 µg (50%) 3.0 mg (25%) 80 mg (25%) 1.8 mg (15%)	
<b>Dairy products</b>				
Dried milks	200 mL	Vitamin A Riboflavin Vitamin D Calcium	110 µg (15%) 0.4 mg (25%) 2.5 µg (25%) 400 mg (50%)	125 µg 3.0 µg
Modified milks and skim milk	200 mL	Vitamin A Vitamin D Calcium	110 µg (15%) 1.0 µg (10%) 400 mg (50%)	125 µg 1.6 µg
Cheese and cheese products	25 g	Vitamin A Calcium Phosphorus Vitamin D	110 µg (15%) 200 mg (25%) 150 mg (15%) 1.0 µg (10%)	125 µg 1.6 µg
Yoghurts (with or without other foods)	150 g	Vitamin A Vitamin D Calcium	110 µg (15%) 1.0 µg (10%) 320 mg (40%)	125 µg 1.6 µg
Dairy desserts containing no less than 3.1% m/m milk protein	150 g	Vitamin A Vitamin D Calcium	110 µg (15%) 1.0 µg (10%) 320 mg (40%)	125 µg 1.6 µg
Ice cream and ice confections containing no less than 3.1% m/m milk protein	75 g	Calcium	200 mg (25%)	
Cream and cream products containing no more than 40% m/m milkfat	30 mL	Vitamin A	110 µg (15%)	125 µg
Butter	10 g	Vitamin A Vitamin D	110 µg (15%) 1.0 µg (10%)	125 µg 1.6 µg
<b>Edible oils and spreads</b>				
Edible oil spreads and margarine	10 g	Vitamin A Vitamin D	110 µg (15%) 1.0 µg (10%)	125 µg 1.6 µg

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
Edible oil spreads and margarine containing no more than 28% total saturated fatty acids and trans fatty acids	10 g	Vitamin E	3.5 mg (35%)	
Sunflower oil and safflower oil	10 g	Vitamin E	7.0 mg (70%)	
Edible oils (except sunflower and safflower oil) containing no more than 28% total saturated fatty acids and trans fatty acids	10 g	Vitamin E	3.0 mg (30%)	
<b>Extracts</b>				
Extracts of meat, vegetables or yeast (including modified yeast) and foods containing no less than 800 g/kg of extracts of meat, vegetables or yeast (including modified yeast)	5 g	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Folate Iron	0.55 mg (50%) 0.43 mg (25%) 2.5 mg (25%) 0.4 mg (25%) 0.5 µg (25%) 100 µg (50%) 1.8 mg (15%)	
<b>Fruit juice, vegetable juice, fruit drink and fruit cordial</b>				
All fruit juice and concentrated fruit juice	200 mL	Calcium Folate Vitamin C Carotene forms of Vitamin A	200 mg (25%) 100 µg (50%) 120 mg (3 times) 200 µg (25%)	
Blackcurrant juice, concentrated blackcurrant juice	200 mL	Vitamin C	500 mg (12.5 times)	
Guava juice, concentrated guava juice	200 mL	Vitamin C	400 mg (10 times)	
Mango juice	200 mL	Carotene forms of Vitamin A	800 µg (1.1 times)	
Pawpaw juice, concentrated pawpaw juice	200 mL	Carotene forms of Vitamin A	300 µg (40%)	
Tomato juice, concentrated tomato juice	200 mL	Vitamin C Carotene forms of Vitamin A Folate Calcium	60 mg (1.5 times) 200 µg (25%) 100 µg (50%) 200 mg (25%)	

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
Vegetable juice	200 mL	Vitamin C Carotene forms of Vitamin A Folate Calcium	60 mg (1.5 times) 200 µg (25%)  100 µg (50%) 200 mg (25%)	
Fruit drinks, vegetable drinks and fruit and vegetable drinks containing at least 250 mL/L of the juice, puree or comminution of the fruit or vegetable or both; fruit drink, vegetable drink or fruit and vegetable drink concentrate which contains in a reference quantity at least 250 mL/L of the juice, puree or comminution of the fruit or vegetable, or both	200 mL	Folate Vitamin C Carotene forms of vitamin A Calcium	refer to clause 5 refer to clause 5 refer to clause 5  200 mg (25%)	
Fruit cordial, fruit cordial base	200 mL	Vitamin C	refer to clause 5	
<b>Analogues derived from legumes</b>				
Beverages containing no less than 3% m/m protein derived from legumes	200 mL	Vitamin A Thiamin Riboflavin Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Vitamin D Folate Calcium Magnesium Phosphorus Zinc Iodine	110 µg (15%) no claim permitted 0.43 mg (25%) no claim permitted 0.8 µg (40%) 1.0 µg (10%) no claim permitted 240 mg (30%) no claim permitted 200 mg (20%) no claim permitted 15 µg (10%)	125 µg 0.10 mg  0.12 mg  1.6 µg 12 µg 22 mg  0.8 mg
Analogues of meat, where no less than 12% of the energy value of the food is derived from protein, and the food contains 5 g protein per serve of the food	100 g	Thiamin Riboflavin Niacin Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Folate Iron Magnesium Zinc	0.16 mg (15%) 0.26 mg (15%) 5.0 mg (50%) 0.5 mg (30%) 2.0 µg (100%) no claim permitted 3.5 mg (30%) no claim permitted 4.4 mg (35%)	     10 µg  26 mg

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
Analogues of yoghurt and dairy desserts containing no less than 3.1% m/m protein derived from legumes	150 g	Vitamin A Thiamin Riboflavin Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Vitamin D Folate Calcium Magnesium Phosphorus Zinc Iodine	110 µg (15%) no claim permitted 0.43 mg (25%) no claim permitted 0.3 µg (15%) 1.0 µg (10%) 20 µg (10%) 320 mg (40%) no claim permitted 200 mg (20%) no claim permitted 15 µg (10%)	125 µg 0.08 mg  0.11 mg  1.6 µg  22 mg  0.7 mg
Analogues of ice cream containing no less than 3.1% m/m protein derived from legumes	75 g	Vitamin A Riboflavin Vitamin B <sub>12</sub> Calcium Phosphorus	110 µg (15%) 0.26 mg (15%) 0.2 µg (10%) 200 mg (25%) no claim permitted	125 µg   80 mg
Analogues of cheese containing no less than 15% m/m protein derived from legumes	25 g	Vitamin A Riboflavin Vitamin B <sub>12</sub> Vitamin D Calcium Phosphorus Zinc Iodine	110 µg (15%) 0.17 mg (10%) 0.3 µg (15%) 1.0 µg (10%) 200 mg (25%) 150 mg (15%) no claim permitted no claim permitted	125 µg   1.6 µg  1.0 mg 10 µg
<b>Composite products</b>				
Soups, prepared for consumption in accordance with directions	200 mL	calcium	200 mg (25%)	
<b>Analogues derived from cereals</b>				
Beverages containing no less than 0.3% m/m protein derived from cereals	200 mL	Vitamin A Thiamin Riboflavin Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Vitamin D Folate Calcium Magnesium Phosphorus Zinc Iodine	110 µg (15%) no claim permitted 0.43 mg (25%) no claim permitted 0.8 µg (40%) 1.0 µg (10%) no claim permitted 240 mg (30%) no claim permitted 200 mg (20%) no claim permitted 15 µg (10%)	125 µg 0.10 mg  0.12 mg  1.6 µg 12 µg  22 mg  0.8 mg

Column 1	Column 2	Column 3	Column 4	Column 5
Food	Reference Quantity	Vitamins & Minerals That May Be Added	Maximum Claim Per Reference Quantity (proportion RDI)	Maximum Permitted Quantity of Vitamin or Mineral per Reference Quantity
Formulated Beverages	600 mL	Folate Vitamin C Carotene forms of Vitamin A Niacin Thiamin Riboflavin Calcium Iron Magnesium Vitamin B <sub>6</sub> Vitamin B <sub>12</sub> Vitamin D Vitamin E Iodine Pantothenic acid Selenium	50 µg (25%) 40 mg (100%) 200 µg (25%) 2.5 mg (25%) 0.28 mg (25%) 0.43 mg (25%) 200 mg (25%) 3.0 mg (25%) 80 mg (25%) 0.4 mg (25%) 0.5 µg (25%) 2.5 µg (25%) 2.5 mg (25%) 38 µg (25%) 1.3 mg (25%) 17.5 µg (25%)	

**Editorial note:**

The *New Zealand (Mandatory Fortification of Bread with Folic Acid) Food Standard 2007* applies to bread sold in New Zealand. This Standard does not apply to bread sold or prepared for sale in, or imported into Australia.

**4 Claims in relation to the vitamin and mineral content of foods listed in the Table to clause 3**

If a vitamin or mineral has been added to a food listed in Column 1 of the Table to clause 3, a claim must not be made that the food contains that vitamin or mineral, both added or naturally present, in the reference quantity of the food in greater proportions than that specified in Column 4.

**5 Calculation of maximum quantity of a vitamin or mineral which may be claimed in a reference quantity of food**

(1) If a final food contains more than one ingredient and at least one ingredient contains an added vitamin or mineral pursuant to a permission in Standard 1.3.2, the maximum claim permitted in relation to that vitamin or mineral in a reference quantity of the final food is calculated by summing the quantity of that vitamin or mineral calculated for each ingredient according to the formula set out below and rounded to the nearest 2 significant figures.

(2) In this subclause –

**M<sub>rq</sub>** means the maximum quantity of a vitamin or mineral permitted to be claimed in a reference quantity of the final food calculated in accordance with the formula –

$$M_{rq} = Q_1 + Q_2 + \dots + Q_i$$

where –

$Q_1$  is the quantity of a vitamin or mineral permitted to be claimed for the first ingredient in a reference quantity of the final food,  $Q_2$  is the quantity of a vitamin or mineral permitted to be claimed for a second ingredient in a reference quantity of the final food, and so forth for all ingredients containing that vitamin or mineral.

- (3) The amount used for the quantity permitted to be claimed means either the –
- (a) average quantity of the vitamin or mineral present in the amount of unfortified ingredient in a reference quantity of the final food; or
  - (b) maximum permitted claim for the vitamin or mineral in the amount of fortified ingredient in a reference quantity of the final food.

**Editorial note:**

Example calculations

- (a) Vitamin C claim for an apple and blackcurrant fruit drink comprised of 80 mL apple juice and 4 mL blackcurrant juice in a reference quantity of 200 mL –

Maximum claim per reference quantity for vitamin C in apple juice = 120 mg/200 mL

Maximum claim per reference quantity for vitamin C in blackcurrant juice = 500 mg/200 mL

$Q_1$  (apple juice) = 120 mg x 80/200 = 48 mg vitamin C/200 mL

$Q_2$  (blackcurrant juice) = 500 mg x 4/200 = 10 mg vitamin C/200 mL

$M_{rq} = 48 + 10 = 58$  mg vitamin C/200 mL apple and blackcurrant fruit drink

The calculated maximum quantity of vitamin C that may be claimed in 200 mL of apple and blackcurrant fruit drink rounded to the nearest 2 significant figures = 58 mg (no change)

- (b) Iron claim for an uncooked beef schnitzel comprised of 115 g raw beef and 30 g iron-fortified breadcrumbs, in a reference quantity of 145 g –

Average quantity of iron in raw beef = 2.5 mg/100 g (from analysis or nutrient composition tables)

Maximum claim per reference quantity for iron in fortified breadcrumbs = 3 mg/50 g bread

$Q_1$  (raw beef) = 2.5 x 115/100 = 2.875 mg iron/115 g

$Q_2$  (iron-fortified breadcrumbs) = 3 mg x 30/50 = 1.8 mg iron/30 g

$M_{rq} = 2.875 + 1.8 = 4.675$  mg iron/145 g uncooked beef schnitzel

The calculated maximum quantity of iron that may be claimed in 145 g of uncooked beef schnitzel rounded to the nearest 2 significant figures = 4.7 mg



## 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 1.3.2 as in force on **30 October 2014** (up to Amendment No. 150). It includes any commenced amendment affecting the compilation to that date.

Prepared by Food Standards Australia New Zealand on **30 October 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 1.3.2** was published in the *Commonwealth of Australia Gazette* No. P 30 on 20 December 2000 as part of Amendment No. No. 53 (F2008B00615 – 30 September 2008) and has been amended as follows:

Clause affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
Purpose	55	F2008B00791 9 Dec 2008 P 23 30 Aug 2001	30 Aug 2001	am	Insert reference to Standard 2.6.4.
Purpose	93	F2007L03630 13 Sept 2007 FSC 35 13 Sept 2007	13 Sept 2009	rs	To reflect approval of mandatory fortification with folate of wheat flour for making bread.
Purpose	97	F2008L00708 13 March 2008 FSC 39 13 March 2008	27 Sept 2009	rs	To reflect approval of mandatory fortification of bread with iodised salt in New Zealand only.
Purpose	103	F2008L03741 9 Oct 2008 FSC 45 9 Oct 2008	9 Oct 2009	rs	To reflect approval of mandatory fortification of bread with iodised salt in Australia.
Purpose	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	am	Consequential relating to date of effect of Standard 1.2.7.
Table of Provs	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	am	Reflect amendments to clauses 4, 5, 6, 7, 8 and 9.

Clause affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
1	111	F2009L03145 13 Aug 2009 FSC 53 13 Aug 2009	13 Aug 2009	rs	Definition of 'claimable food'.
1	124	F2011L01450 8 July 2011 FSC 66 11 July 2011	11 July 2011	am	Definition of 'claimable food'.
1	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rep	Definitions of 'claimable food' and 'primary food' omitted consequential to date of effect of Standard 1.2.7.
1	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rs	Definition of 'reference quantity' consequential to date of effect of Standard 1.2.7.
3	103	F2008L03741 9 Oct 2008 FSC 45 9 Oct 2008	9 Oct 2008	am	Wording for 'does not exceed'.
Table to clause 3	64	F2008B00810 23 Dec 2008 FSC 6 13 Dec 2002	13 Dec 2002	am	References to bread.
Table to clause 3	82	F2005L03463 10 Nov 2005 FSC 24 10 Nov 2005	10 Nov 2005	am, ad	Include permissions for calcium for a number of foods.
Table to clause 3	85	F2006L00469 10 Feb 2006 FSC 27 10 Feb 2006	10 Feb 2006	ad	Include permissions for cereal-based beverages.
Table to clause 3	89	F2006L03647 9 Nov 2006 FSC 31 9 Nov 2006	9 Nov 2006	ad	Include permissions for formulated beverages
Table to clause 3	93	F2007L03630 13 Sept 2007 FSC 35 13 Sept 2007	13 Sept 2009	rs	Permissions for bread to reflect approval of mandatory fortification with folate of wheat flour for making bread.
Table to clause 3	101	F2008L03058 14 Aug 2008 FSC 43 14 Aug 2008	14 Aug 2008	am	Entry for iron.
Table to clause 3	124	F2011L01450 8 July 2011 FSC 66 11 July 2011	11 July 2011	am	Spelling of thiamine.
Table to clause 3	124	F2011L01450 8 July 2011 FSC 66 11 July 2011	11 July 2011	rs	Entries for edible oils and spreads and fruit juice.
Table to clause 3	124	F2011L01450 8 July 2011 FSC 66 11 July 2011	11 July 2011	ad	Editorial note.
Table to clause 3	150	F2014L01427 28 Oct 2014 FSC92 30 Oct 2014	30 Oct 2014	am	References to clause 8 to be changed to clause 5.
4	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rs	Clause consequential to date of effect of Standard 1.2.7.

Clause affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
5	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rs	Clause consequential to date of effect of Standard 1.2.7.
6	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rep	Clause consequential to date of effect of Standard 1.2.7.
7	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rep	Clause consequential to date of effect of Standard 1.2.7.
8	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rep	Clause consequential to date of effect of Standard 1.2.7.
9	138	F2013L00050 14 Jan 2013 FSC 80 18 Jan 2013	18 Jan 2013	rep	Clause consequential to date of effect of Standard 1.2.7.
9(3)	65	F2008B00798 19 Dec 2008 FSC 2 20 June 2002	20 June 2002	am	Example.