

STANDARD 1.3.2

VITAMINS AND MINERALS

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
Cereals and cereal products				
Biscuits containing not more than 200 g/kg fat and not more than 50 g/kg sugars	35 g	Thiamin Riboflavin Niacin Vitamin B ₆ 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 ₆ 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 ₆ 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%)	

Table to clause 3 (continued)

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 ₆ 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 ₆ 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%)	
Dairy products				
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

Table to clause 3 (continued)

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 oils and spreads				
Edible oil spreads and margarine	10 g	Vitamin A Vitamin D	110 µg (15%) 1.0 µg (10%)	125 µg 1.6 µg
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%)	
Extracts				
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 ₆ Vitamin B ₁₂ 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%)	
Fruit juice, vegetable juice, fruit drink and fruit cordial				
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%)	

Table to clause 3 (continued)

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
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%)	
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 8 refer to clause 8 refer to clause 8 200 mg (25%)	
Fruit cordial, fruit cordial base	200 mL	Vitamin C	refer to clause 8	
Analogues derived from legumes				
Beverages containing no less than 3% m/m protein derived from legumes	200 mL	Vitamin A Thiamin Riboflavin Vitamin B ₆ Vitamin B ₁₂ 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

Table to clause 3 (continued)

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 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 ₆ Vitamin B ₁₂ 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
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 ₆ Vitamin B ₁₂ 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 ₁₂ 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 ₁₂ 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
Composite products				
Soups, prepared for consumption in accordance with directions	200 mL	calcium	200 mg (25%)	

Table to clause 3 (continued)

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 derived from cereals Beverages containing no less than 0.3% m/m protein derived from cereals	200 mL	Vitamin A Thiamin Riboflavin Vitamin B ₆ Vitamin B ₁₂ 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
Formulated Beverages	600 mL	Folate Vitamin C Carotene forms of Vitamin A Niacin Thiamin Riboflavin Calcium Iron Magnesium Vitamin B ₆ Vitamin B ₁₂ 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_{rq} 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

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

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

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