

**WHEY PROTEIN CONCENTRATE 450**

Instantised

PSNB.1945

VERSION: 03.0526

UNRESTRICTED

Whey Protein Concentrate 450 from Fonterra is an instantised, soluble milk protein manufactured from fresh cheese whey using an ultra-filtration process. Whey Protein Concentrate 450 is ideal for dry mix beverage due to high nutritional value, excellent solubility throughout the pH range, and enhanced dispersibility.

FEATURES

- Excellent dispersibility
- Soluble over a wide pH range
- Excellent nutritional value
- Improved handling properties

SUGGESTED USES

- Dry mix beverages
- Nutritional products

CERTIFICATION

- Halal

ORIGIN

- Product of New Zealand

**NUTRITIONAL INFORMATION****TYPICAL**

(per 100 g product)

Energy (kJ)	1727
Protein (N x 6.38) as is	79.8
Moisture (g)	4.1
Fat (g)	7.2
Carbohydrate (g)	6.1
Ash (g)	2.8

INGREDIENTS (ALLERGENS IN BOLD)

Whey from pasteurised New Zealand cow's **milk**,
Sunflower lecithin

Country regulations for product labelling vary. Fonterra advises customers that they need to check local regulations to determine the correct labelling of this ingredient.

PACKAGING

Multi-ply paper which incorporates a moisture barrier and contains the product within an inner polyethylene bag. No staples or metal fasteners are used.

- Net Weight: 20.0 kg
- Gross Weight: 20.35 kg
- Typical Packaging Dimension: 103.0 x 53.0 x 17.0 cm



STORAGE AND HANDLING

Whey Protein Concentrates are hygroscopic and can absorb odours. Therefore adequate protection is essential. It is recommended that product is stored at temperatures below 25 °C, relative humidity below 65% and in an odour free environment. Stocks should be used in rotation preferably within 24 months of manufacture.



Store in a cool, dry place



Handle with care



Keep away from odours

TRUSTED QUALITY

Our manufacturing facilities adhere to the highest global standards in food safety and quality, verified through regular internal and external audit programs and accredited with FSSC22000 certification.

COMPLIANCE:

Our products and ingredients are tested throughout the supply chain, from milk collection through to final product release, using internationally recognised test methods to verify quality and compliance.

Our products are securely packed in food grade packaging and labelled to enable full trace back, so you can trust in the knowledge it was made with care.

HOW TO BUY:

For further information or to purchase NZMP WHEY PROTEIN CONCENTRATE 450, please contact your NZMP Account Manager.



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NUTRITIONAL ANALYSIS

TYPICAL

(per 100 g product)

Energy	1727 kJ
<i>Calories</i>	413 kcal
Protein (N x 6.38) as is	79.8 g
Fat	7.2 g
<i>Energy from fat</i>	266 kJ
<i>Calories from fat</i>	64 kcal
<i>Saturated fatty acids</i>	4.4 g
<i>Monounsaturated fatty acids</i>	1.5 g
<i>Polyunsaturated fatty acids</i>	0.4 g
<i>Trans fatty acids</i>	0.3 g
Cholesterol	220 mg
Total Carbohydrate	6.1 g
<i>Added sugars</i>	0 g
Dietary Fibre	0 g
Ash	2.8 g

VITAMIN ANALYSIS

TYPICAL

(per 100 g product)

Vitamin A	55.9 µg
Vitamin D	<0.2 µg

MINERAL ANALYSIS

TYPICAL

(per 100 g product)

Calcium	410 mg
Chloride	37 mg
Copper	0.09 mg
Iodine	0.01 mg
Iron	0.9 mg
Magnesium	54 mg
Manganese	0.02 mg
Phosphorous	270 mg
Potassium	750 mg
Selenium	0.03 mg
Sodium	250 mg
Zinc	0.4 mg

TYPICAL PHYSICAL PROPERTIES

Colour	Cream
Flavour	Clean
Bulk Density 35 Tap	0.40 g/mL

Fonterra does not recommend using the typical vitamin and mineral values that are stated in this Bulletin as a basis for formulating a nutritional product.

The typical values are an average of representative samples taken from across the manufacturing season, and are based on the typical composition.



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AMINO ACID PROFILE

TYPICAL (per 100 g protein)

Essential	Isoleucine	7.0 g
	Leucine	11.4 g
	Lysine	9.4 g
	Methionine	2.6 g
	Phenylalanine	3.5 g
	Threonine	7.4 g
	Tryptophan	2.1 g
	Valine	6.4 g
Non-Essential	Histidine (Essential for Infants)	2.0 g
	Alanine	5.4 g
	Arginine	2.8 g
	Aspartic acid	11.3 g
	Cysteine/cystine	2.9 g
	Glutamic acid	18.6 g
	Glycine	2.1 g
	Proline	6.5 g
	Serine	5.4 g
	Tyrosine	3.5 g



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PRODUCT SPECIFICATION

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CHEMICAL	UNITS	TYPICAL	MIN	MAX	REFERENCE METHOD
Protein (N x 6.38) Dry Basis	% m/m	83.2	80.0		Calculation from ISO 8968-1
Moisture	% m/m	4.1		5.5	ISO 5550
Ash	% m/m	2.8		4.0	Gravimetric 600 °C
Fat	% m/m	7.2		9.0	ISO 23319
pH (5% at 20 °C)	pH	6.7	6.5	7.2	Fonterra

MICROBIOLOGICAL	UNITS	TYPICAL	MAX	REFERENCE METHOD
Aerobic Plate Count	cfu/g	<30,000	30,000	ISO 4833 MOD
Escherichia coli	/g	Not Detected	Not Detected	ISO 11866-1 MOD
Coagulase Positive Staphylococci	cfu/g	Not Detected	10	ISO 6888-1 MOD
Yeasts and Moulds	cfu/g	<10	50	ISO 6611 MOD
Listeria	/125 g	Not Detected	Not Detected	GeneUp-Biomerieux/ISO 11290
Salmonella	/750 g	Not Detected	Not Detected	GeneUp-Biomerieux/ISO 6579

PHYSICAL	UNITS	TYPICAL	MIN	MAX	REFERENCE METHOD
Scorched particles	/50 g	A		B	ADPI
Foreign matter	/50 g	Pass	Pass		Fonterra

SENSORY	UNITS	TYPICAL	MIN	REFERENCE METHOD
Flavour and odour	Typical/Atypical	Typical	Typical	Sensory Analysis

Where there is a “Typical” value or attribute listed anywhere in the Bulletin, or Product Specification, this is an indication only, and Fonterra Limited is not obliged to satisfy a “Typical” value so long as the product is still within specification.

The MIN and MAX values set out in the Product Specification section of the Bulletin are the specification limits that Fonterra Limited agrees to meet.