



A division of Volac International Limited

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ULTRA WHEY 80 INSTANT TECHNICAL DATA SHEET

PRODUCT:

- 80% Whey Protein Concentrate - Instantised

DESCRIPTION:

- A powder which is manufactured from sweet cheese whey using Cross-Flow Membrane Filtration. The resulting protein concentrate is subsequently spray-dried, with concurrent agglomeration and instantising with lecithin (E322). This product provides an excellent source of natural protein for use in a variety of applications in an easy mixing form.

PHYSICAL PROPERTIES:

		Test Method
Appearance:	An off-white non-caking powder.	Subjective
Taste/Flavour:	Very bland taste and odour. No off-flavours.	Subjective
Solubility Index:	<0.25ml/50ml (10% solution)	
Scorched Particles:	ADMI Disc A	ADMI

CHEMICAL PROPERTIES:

% of product 'as is'	Typical	Min	Max	Test Method
Moisture %	4.0	2.0	5.0	NIR calibrated to Karl Fischer
Protein % (Nx6.38 dry matter basis)	82.0	80.1		NIR calibrated to Kjeldahl
Fat %	7.0	4.0	8.0	NIR calibrated to Rose Gottlieb
Ash %	3.0	2.0	4.0	Oven, 550°C, 6hrs
Lactose %	6.0	4.0	8.0	Enzymatic, NEN 6853
pH	6.5	6.2	6.8	pH meter
Nitrate			50ppm	Test Strip

MICROBIOLOGICAL:

Total Viable Count:	<30,000cfu/g
Enterobacteriaceae:	<10/g
E. Coli:	Absent in 1g
Yeasts & Moulds:	<50/g
Moulds:	<50/g
Salmonella:	Absent in 50g

PACKAGING/STORAGE

- Available in poly lined multiwall paper sacks at 20kg net weight. Dairy powders can be hygroscopic and can absorb odours.
- For maximum stability it is recommended that this product be stored below 25°C and below 65% relative humidity; and also away from strong flavours or odours.
- Shelf Life: Minimum 18 months under the above storage conditions.



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ULTRA WHEY 80 - Instant SUPPLEMENTARY TECHNICAL DATA SHEET

PRODUCT:

- WPC 80, Agglomerated and Instantised

DESCRIPTION:

- A powder which is manufactured from sweet cheese whey using Cross-Flow Membrane Filtration. The resulting protein concentrate is subsequently spray-dried, with concurrent agglomeration and instantising with lecithin (E322). This product provides an excellent source of natural protein for use in a variety of applications in an easy mixing form.

TYPICAL MINERAL PROFILE:

- Sodium (Na): 0.20%
- Potassium (K): 0.60%
- Calcium (Ca): 0.50%
- Phosphorous (P): 0.30%
- Magnesium (Mg): 0.10%
- Chloride (Cl): 0.10%

HEAVY METALS

- Aluminium (Al): <5 ppm
- Arsenic (As): <0.25 ppm
- Cadmium (Cd): <0.1 ppm
- Chromium (Cr): <0.25 ppm
- Copper (Cu): <20.0 ppm
- Iron (Fe): <20.0 ppm
- Lead (Pb): <0.25 ppm
- Manganese (Mn): <1.0 ppm
- Mercury (Hg): <0.05 ppm
- Molybdenum (Mo): <0.25 ppm
- Selenium (Se): <0.25 ppm
- Tin (Sn): <0.5 ppm
- Titanium (Ti): <10.0 ppm
- Zinc (Zn): <20.0 ppm

CONCENTRATION OF PROTEIN FRACTIONS¹

Fraction	% of protein
Beta Lactoglobulin	40-46%
Alpha Lactalbumin	14-18%
Bovine serum albumin	1-2%
Immunoglobulin G	4-10%
Lactoferrin	<1%
Glycomacropeptide	24-28%

¹ As measured according to the method of Elgar *et al.*, 2000

Figures stated are part of ongoing work and are intended as an indication only



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TYPICAL AMINO ACID PROFILE (% of protein)

• Alanine	5.0
• Arginine	2.1
• Aspartic acid	11.0
• Cystine	2.2
• Glutamic Acid	18.1
• Glycine	1.4
• Histidine	1.7
• Isoleucine*	6.4
• Leucine*	10.6
• Lysine	9.6
• Methionine	2.2
• Phenylalanine	3.0
• Proline	5.5
• Serine	4.6
• Threonine	6.7
• Tryptophan	1.4
• Tyrosine	2.6
• Valine*	5.9

* = BCAA

NUTRITIONAL INFORMATION²

Typical Values per 100 g powder

Energy	1706 kJ/400 kcal
Protein	78.7 g
Carbohydrate	6.0 g
of which sugars	6.0 g
Fat	7.0 g

ALLERGEN LIST

The following allergens are present by direct incorporation due to the nature of the raw material used in the production process:

- Cow's milk protein
- Lactose
- Soya
- Natural colours (Annato)

² Typical values calculated as an indication only