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TECHNICAL DATA SHEET ULTRAWHEY 90 INSTANTISED

PRODUCT:

- Whey Protein Isolate, Agglomerated and Instantised

DESCRIPTION:

- Ultra Whey 90 Instant is manufactured from sweet whey from hard-pressed cheese which has been processed using a combination of Cross-Flow Ultrafiltration and Microfiltration techniques. The resulting protein concentrate is spray dried, agglomerated and instantised. This product provides an excellent source of natural protein in an easy mixing form for use in a variety of applications in special dietary food and beverage formulations.

ADDED INGREDIENTS:

- Soya Lecithin (E322)

PHYSICAL PROPERTIES:

		Test Reference*
• Appearance:	An off-white non-caking agglomerated powder.	QC DI/82
• Taste/Flavour:	Very bland taste and odour. No off-flavours.	QC DI/82
• Solubility Index:	<0.25ml/50ml	QC DI/06
• Scorched Particles:	ADMI Disc A	QC DI/19

CHEMICAL PROPERTIES:

	Min	Max	Typical	
• Moisture:	4.0%	7.0%	5.0%	QC DI/49
• Fat: (including approx. 0.7% lecithin)		1.2%	1.0%	QC DI/29
• Protein (Dumas, N x 6.38, Dry Matter)	91%		93%	QC DI/92
• Ash:		3.0%	2.2%	QC DI/14
• Lactose:		3.0%	2.0%	QC DI/20
• pH (10% solution):	5.8	6.8	6.1	QC DI/05

MICROBIOLOGICAL:

• Total Viable Count:	<10,000cfu/g	QC DI/60
• Enterobacteriaceae:	<10/g	QC DI/61
• E. Coli:	Absent in 1g	QC DI/84
• Yeasts & Moulds:	<50/g	QC DI/64
• Salmonella:	Absent in 50g	SAB52
• Staph. Aureus:	<10/g	QC DI/66

PACKAGING/STORAGE

- Available in heat sealed poly-lined multiwall 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: 18 months (from date of manufacture) under the above storage conditions.

* Volac International Laboratory Quality Manual (vol. 1 & 2)



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ULTRAWHEY 90 – INSTANTISED SUPPLEMENTARY TECHNICAL DATA SHEET

PRODUCT:

- Whey Protein Isolate, Agglomerated and Instantised

DESCRIPTION:

- Ultra Whey 90 Instant is manufactured from sweet whey from hard-pressed cheese which has been processed using combination of Cross-Flow Ultrafiltration and Microfiltration techniques. The resulting protein concentrate is spray dried, agglomerated and instantised. This product provides an excellent source of natural protein for use in a variety of applications in an easy mixing form for use in a variety of special dietary food and beverage formulations.

TYPICAL MINERAL PROFILE

- Sodium (Na): 0.30%
- Potassium (K): 0.50%
- Calcium (Ca): 0.48%
- Phosphorus (P): 0.22%
- Magnesium (Mg): 0.06%
- Chloride (Cl): 0.1%

HEAVY METALS/METAL CONTAMINANTS

- Aluminium (Al): <5 ppm
- Arsenic (As): <0.25 ppm
- Cadmium (Cd): <0.1 ppm
- Chromium (Cr): <0.25 ppm
- Copper (Cu): <20 ppm
- Iron (Fe): <20 ppm
- Lead (Pb): <0.25 ppm
- Manganese (Mn): <1 ppm
- Mercury (Hg): <0.05 ppm
- Molybdenum (Mo): <0.25 ppm
- Selenium (Se): <0.25 ppm
- Tin (Sn): <0.5 ppm
- Titanium (Ti): <10 ppm
- Zinc (Zn): <20 ppm

CONCENTRATION OF PROTEIN FRACTIONS¹

Fraction	% of protein
Beta Lactoglobulin	43-48%
Alpha Lactalbumin	14-18%
Bovine serum albumin	1-2%
Immunoglobulin G	1-3%
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	1575 kJ/371 kcal
Protein	88.0 g
Carbohydrate	2.0 g
of which sugars	2.0 g
Fat	1.0 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
- Natural colours (Annato)
- Soya

² Typical values calculated as an indication only