

OPTIPEP 90 INSTANT SN
TECHNICAL SPECIFICATION
Product Description

Optipep 90 Instant SN is an enzyme hydrolysed Whey Protein Isolate providing a high quality source of peptides. It is lightly hydrolysed offering a low bitter flavour profile and is suitable for use in enhanced nutritional and functional applications. This ingredient has been instantised to improve its solubility and dispersibility in water.

Ingredient Listing

Hydrolysed Whey Protein Isolate (Emulsifier: **Soy Lecithin**) (**Milk**)

Chemical	Specification	Typical	Test Method
Protein (TN x 6.41*) (% dry basis)	89.0 Min	90.0	Kjeldahl
Total Nitrogen (% TN)	13.0 Min	14.0	Kjeldahl
Moisture (%)	6.0 Max	5.0	Oven
Fat (%)	1.5 Max	1.3	NIR
Ash (%)	4.0 Max	3.0	Furnace 550°C
Lactose (%)	1.0 Max	0.8	Calculated
pH	6.0 Min	6.4	10% Aq Soln

* Kjeldahl Factor adjusted for changes in Nitrogen : Protein ratio due to the degree of hydrolysis

Microbiological

Standard Plate Count (SPC)	50,000 / g Max	<10,000 / g Max	ISO 4833:2003
Enterobacteriaceae	<10 / g	<10 / g	ISO 21528:2004
E.coli	<10 / g	<10 / g	ISO 16649-2:2001
Staph. aureus	<10 / g	<10 / g	ISO 6888:2003
Salmonella	Not Detected / 25g	Not Detected / 25g	ISO 6579:2002
Yeast & Moulds	50 / g Max	<10 / g	ISO 6611:2004

Physical

Scorched Particles	Disc B or better	Disc A	ADPI Bulletin 916
Bulk Density	0.40 ± 0.10 g/cc	0.40	IDF134:1996
Appearance		Homogenous, free-flowing powder	Visual
Colour		Creamy white	Visual
Organoleptic		Typical, free from off-flavour	Taste

Mineral Profile

Calcium (mg/100g)	400 - 600	500	ICP (Ref: ISO13804:2013)
Sodium (mg/100g)	120 - 250	170	ICP (Ref: ISO13804:2013)
Potassium (mg/100g)	400 - 600	500	ICP (Ref: ISO13804:2013)
Magnesium (mg/100g)	50 - 120	60	ICP (Ref: ISO13804:2013)
Phosphorous (mg/100g)	100 - 300	200	ICP (Ref: ISO13804:2013)
Chloride (mg/100g)	<50	<50	Titration

Hydrolysis Characteristics

Degree of Hydrolysis (%)	4.0 ± 2	4.0	TNBS Assay	
AN/TN (%)	6.0 - 12.0	9.2	Calculated	
Molecular Weight Profile	>10,000	Daltons (%)	72	Size Excl. Chromatography
	5,000 - 10,000	Daltons (%)	3	Size Excl. Chromatography
	2,000 - 5,000	Daltons (%)	4	Size Excl. Chromatography
	1,000 - 2,000	Daltons (%)	3	Size Excl. Chromatography
	500 - 1,000	Daltons (%)	4	Size Excl. Chromatography
	<500	Daltons (%)	14	Size Excl. Chromatography
Average Molecular Weight		Daltons	15,011	Calculation

Typical Nutritional Information

Amino Acid Profile	(g per 100g Powder)	(g per 100g Protein)
Leucine	9.87	11.17
Isoleucine	7.26	8.21
Valine	6.62	7.49
Total Branched Chain Amino Acids	23.75	26.87
Aspartic Acid	10.6	11.99
Glutamic Acid	18.1	20.48
Serine	4.96	5.61
Glycine	1.51	1.71
Histidine	1.54	1.74
Arginine	1.89	2.14
Threonine	7.07	8.00
Alanine	5.25	5.94
Proline	6.04	6.83
Tyrosine	2.67	3.02
Methionine	2.15	2.43
Cystine	2.37	2.68
Phenylalanine	2.80	3.17
Lysine	9.75	11.03
Tryptophan	1.60	1.81

Protein Utilisation*

PER	3.5
BV	104
PDCAAS	0.98
Digestibility	98-100%

* As per scientific literature

Fatty Acid Profile

Saturates (%)	<0.5
Mono-unsaturates (%)	<0.5
Polyunsaturates (%)	<0.5
Cholesterol (mg/100g)	5

Carbohydrates

Lactose (%)	0.8
Glucose (%)	<0.10
Sucrose (%)	<0.10

Energy	372 Kcal / 1557 KJ
Fibre	Nil

Diet Suitability

This product is suitable for individuals with the following dietary requirements: Kosher, Halal, Vegetarian, Ovo-Lacto Vegetarian, Coeliac, Diabetic, Nut/Seed free.

This product neither contains nor consists of genetically modified organisms (GMO's) nor is it produced from or contains ingredients produced from GMO's.

Storage

Store under clean, cool, dry conditions not exposed to direct sunlight or strong odours and avoiding direct contact with walls and floors. Recommended shelf life is 36 months.

Packaging

Packed in 20 kg multi-wall paper-sacks with polythene liners. Each sack will be heat sealed. The product will be palletised and shrink wrapped.

Labelling

The following will be printed in large blue writing on white sacks. "Optipep", Manufactured by Carbery Food Ingredients and processor EU number.

Coding

Each sack will be individually coded by an automatic ink jet system to ensure traceability.

Allergen

Refer to bold print in Ingredient Listing.