

Lacprodan® MicelPure™ Organic

Preliminary Product Datasheet

PRODUCT DESCRIPTION: Natural Milk Protein Isolate powder with high content of casein micelles. Low lactose and fat content. Derived from high quality organic Danish milk.

APPLICATION: Micellar Casein Isolate suitable for UHT treated beverages with longer shelf life.

- PROPERTIES:**
- Protein enrichment
 - Heat stability during UHT treatment
 - Low viscosity
 - Milky appearance

CHEMICAL SPECIFICATIONS	Unit	Specification		Typical value	Frequency of analysis	Analytical method
		Min.	Max.			
Protein as is (Nx6.38)	%	83	90	87	Each batch	ISO 8968-3 / IDF 20-3
Protein in dm (Nx6.38)*	%	88	96		Each batch	General calculation
Casein micelles / proteins	%	90			Each batch	ISO 17997-1 / IDF 20-1
Lactose	%		5	1.2	Each batch	ISO 5765-2 / IDF 79-2
Fat	%		3	1.4	Each batch	ISO 5543 IDF 127: 2004
Ash	%		10	8.1	Each batch	NMKL 173
Moisture	%		6		Each batch	ISO 6731

* Limits are theoretically calculated from moisture and protein limits. Protein as is and moisture limits are used for release.

MINERALS	Unit	Specification		Typical value	Frequency of analysis	Analytical method
		Min.	Max.			
Sodium (Na)	%		0.5	0.1	Each batch	AFI ICP analysis
Magnesium (Mg)	%		0.3	0.1	Each batch	AFI ICP analysis
Phosphorus (P)	%	0.5	2.5	1.6	Each batch	AFI ICP analysis
Chloride (Cl)	%	0.1	1	0.2	Each batch	ISO 5943 / IDF88
Potassium (K)	%		1	0.3	Each batch	AFI ICP analysis
Calcium (Ca)	%		4	2.5	Each batch	AFI ICP analysis

PHYSICAL SPECIFICATIONS	Unit	Specification		Frequency of analysis	Analytical method
		Min.	Max.		
pH	10% sol	6.7	7.5	Each batch	ISO 5546 / IDF 115
Scorched particles	Disc	A		Each batch	ADPI
Bulk density (625x)	g/cm ³	0.3	0.55	Monitoring	ISO 8967 / IDF 134
Colour	Description	White to off white		Each batch	Sensory inspection
Flavour/odour	Description	Free from foreign odours and flavours		Each batch	Sensory inspection
Texture	Description	Powdered, uniform product		Each batch	Sensory inspection

MICROBIOLOGICAL SPECIFICATIONS	Unit	Specification Max.	Frequency of analysis	Analytical method
Total plate count (30 °C)	CFU/g	10,000	Each batch	ISO 4833-1
Total plate count (55 °C)	CFU/g	5,000	Each batch	ISO 4833-1:Incubation at 55 °C 48 hrs
Enterobacteriaceae	CFU/g	<10	Each batch	ISO 21528-2
Bacillus cereus	CFU/g	<100	Each batch	ISO 7932
Sulph. Red. Clostridia	CFU/g	<10	Each batch	ISO 15213
Aerob. Thermoph. Thermo/Res. Spores (ATTS)	CFU/g	500	Each batch	ISO 27265
Yeast & mould	CFU/g	<10	Each batch	ISO 6611
Absent in				
Staphylococcus aureus (enrichment)		1 g	Each batch	ISO 6888-1
Salmonella		250 g	Each batch	ISO 6579
Listeria		25 g	Monitoring	ISO 11290

NUTRITIONAL VALUES

VALUES PER 100 G PRODUCT

Energy	1,501/354	kJ/kcal
Calories from fat	12	kcal
Protein (Nx6.25)	85.2	g
Carbohydrate	1.2	g
- of which dietary fiber	0	g
- of which sugars	1.2	g
- of which added sugars	0	g
Fat	1.4	g
- of which saturated fat	0.9	g
- of which trans fat	0	g
Cholesterol		n.a.
Salt	0.2	g
Sodium	80	mg
Vitamin D		n.a.
Calcium	2,550	mg
Potassium	340	mg
Iron		n.a.

EU: Energy value is calculated according to Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers.

AMINO ACIDS (AA)

TYPICAL AMINO ACID COMPOSITION G. AA/100 G PROTEIN (Nx6.38)

Alanine		3.2
Arginine		3.7
Aspartic acid (asparagine)		7.4
Cysteine (Cystin)		0.5
Glutamic acid (Glutamine)		22.5
Glycine		1.9
Histidine	*	2.9
Isoleucine	*	5.1
Leucine	*	9.6
Lysine	*	8.2
Methionine	*	3.0
Phenylalanine	*	5.1
Proline		10.1
Serine		6.1
Treonine	*	4.5
Tryptophane	*	1.3
Tyrosine	*	5.5
Valine	*	6.6

ALLERGENS

YES	NO	ALLERGENS	DESCRIPTION OF COMPONENTS
		● Cereals containing gluten and products thereof	
		● Crustaceans and products thereof	
		● Eggs and products thereof	
		● Fish and products thereof	
		● Peanuts and products thereof	
		● Soya beans and products thereof	
		● Milk and products thereof (including lactose)	Bovine milk
		● Nuts	
		● (Tree) Nuts and products thereof	
		● Celery and products thereof	
		● Mustard and products thereof	
		● Sesame seeds and products thereof	
		● Sulphur dioxide and sulphites (>10 mg/kg)	
		● Lupin and products thereof	
		● Molluscs and products thereof	

STORAGE:

Store in closed bags under cool and dry conditions to prevent deterioration due to humidity and high temperatures.

SHELF LIFE:

Minimum 24 months if kept under the prescribed storage conditions.

PACKAGING:

Paper bags with a polyethylene inner liner containing 20 kg net.

Samples may not be used for commercial production as they are produced for trials.

LEGAL REFERENCES:

The product is manufactured, packaged and labelled according to the relevant EU-regulations for food and food ingredients, and/or FAO/ WHO Codex Alimentarius where applicable. This includes that the milk/milk constituents used as raw material originate from healthy cows. The milk used in the production is included in monitoring programmes for undesirable substances as required by regulations or HACCP-based risk assessment. The production plant is approved by the competent authorities and included in the EU register of approved food establishments.

Products manufactured outside EU complies with relevant regulations in the country where the product is produced.

GMO POLICY:

Arla Foods Ingredients Group P/S's objective is to avoid genetically modified ingredients in our products. The requirements we have established for our suppliers ensure that only non-GMO raw materials are used during production of our products. Therefore, our products and the raw materials used do not contain, consist of or are produced from GMOs as defined in regulation (EC) No 1829/2003 and they do not contain ingredients produced from GMOs. Therefore, our products do not need labelling according to Regulation (EC) No 1829/2003 and 1830/2003.

For the definition of GMOs we refer to EU Directive 2001/18/EC.