

PRODUCT SPECIFICATION No. PS-11-01/EN
MILK PROTEIN CONCENTRATE POWDER (MPC 85)

General information	
Description	Milk protein concentrate is powder of total milk protein processed by ultrafiltration and spray drying process
Ingredients	<u>Milk</u> 100 % (EU)
Preparation of material before use in production	The milk protein concentrate powder can be used as an ingredient in manufacture of other foodstuffs without further preparation.
Application	Sports nutrition powder and meals, dairy industry (yogurt, cheese, ice cream), bakery and confectionary.
Organoleptic characteristics	
Colour	White creamy
Consistence	Dry fine powder, allowed individual lumps, easily delaminating with mechanical impact
Flavour and odour	Typical for milk protein concentrate powder, free of foreign taste or odour
Physical and chemical parameters	
Moisture (not more than), %	6
Fat (not more than), %	2
Protein (Nx6,38) (not less than), %	80
Protein in dry matter (not less than), %	84,2
Ratio “casein / whey proteins”, typically	85 / 15
Lactose (not more than), %	5,5
Ash (not more than), %	8,5
pH (10 % / 20 °C)	6,7 – 7,0
Insolubility index (60 °C) (not more than), ml	1,0
Scorched particles, disc	A
Bulk density (625x), g/ml	0,400 – 0,550
Poured bulk density, g/ml	0,280 – 0,410
Heat stability	Yes
Inhibitory substances	Not detected
Pharmacologically active substances	Not exceeding the limits set in regulation (EC) No 37/2010
Combined total of residues of all substances	Not exceeding values fixed in regulations (EC) No 1881/2006, (EC) No 396/2005
Physical hazard	Not foreign impurities that may cause health risk to the consumer
Microbiological criteria	
Aerobic plate count, cfu/g	< 10 000
Coliforms, cfu/g	< 10
Yeast and mould, cfu/g	< 50
<i>Enterobacteriaceae</i> , cfu/g	< 10
<i>E. coli</i> , cfu/g	< 10
<i>L. monocytogenes</i> , 25 g	Not detected
<i>Salmonella</i> , 25 g	Not detected

Coagulase-positive staphylococci, cfu/g	< 10
<i>B. cereus</i> , cfu/g	< 50
GMO status	
The product and the raw material used for its production do not contain GMO and comply with EU regulations No. 1829/2003, 1830/2003.	
Ionising radiation	
The product and the raw material used for its production didn't undergo any ionizing radiation and comply with Directive 1999/2/EC.	
Nanotechnology	
For product and raw materials there were not used any nanotechnology.	
Allergens	
Milk and products thereof (including lactose). Comply with Regulation (EU) No.1169/2011.	
Packing	
Multiply paper bags with polyethylene liner 20 kg net; Big bag with variable weight from 900 to 1050 kg net. Comply with regulations (EU) No.10/2011, 1935/2004.	
Storage conditions and shelf life	
From the date of production at a humidity not up 75 %, not longer than 18 months at a temperature not up +25 °C	
Production batch number identification	
The sample of batch number: I9081A1	I – identification of product name (letter “I” is dedicated for MPC powder).
	9 - the last number of the year.
	081 – the day of the production (= the day of the year).
	A1 – identification of packaging machine
Transportation	
Covered transport without prejudice to the storage conditions	
Consumer group	
Not suitable for people intolerant to milk and milk products, including lactose.	

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