

PRODUCT SPECIFICATION

MALTODEXTRIN DE 10

Product description

Molecular Formula:	$H(C_6H_{10}O_5)_n-OH$
EI N ECS:	232-940-4
CAS No:	9050-36-6
Appearance:	homogeneous free flowing fine powder, microgranules
Colour:	white
Taste and odour:	peculiar to maltodextrin, without foreign taste and odour
Intended use:	intended for use as a carbohydrate component, structure-forming agent, forming agent, natural sweetener, sweetener regulator, stabilizer, neutral carrier of flavouring additives in various industries.
Production method:	partial starch cleavage product consisting of a multicomponent mixture of glucose, maltose, maltotriose and polysaccharides in various ratios.

Plant based product produced from corn grain not containing GMO.

Complies to the Food Chemical Codex and to the European / US Pharmacopeia monographs on Maltodextrin

Nutrition value in 100 g of a product, not less	93/100 g
Carbohydrates, %, not less	93
Fats, %	0
Proteins, %	0
Energy value (calorific value) kcal / kJ per 100g maltodextrin, not less	372/1581
Composition	Maltodextrin 100%

Physical and chemical specifications

<i>Parameter</i>	<i>Units</i>	<i>Typical value</i>	<i>Method of analysis</i>
Moisture, no more than	%	6.0	Determination of loss in mass on drying (130°C / 5 g / 1,5 h) (Ref. ISO 1666:1996)
Dextrose Equivalent (Lane-Eynon method), no more than	%	10.0 – 12.0	Titremetry, Lane-Eynon method (Ref. ISO 5377:1981)
Iodine Test		NO BLUE	Reaction to 5% alcohol solution of iodine
Mass fraction of protein in terms of dry matter, %, no more	%	0,1	Oxidation of a weighed portion of starch with concentrated sulfuric acid upon heating, followed by distillation of ammonia and conversion of the nitrogen contained in it into protein (N * 6.25) (ISO3188:78)
Sulphated Ash Content, %, no more than	%	0,20	Weighing of residuals from burning a weighed portion of maltodextrin in muffle oven at 550°C (+H ₂ SO ₄) (Ref. ISO5809:1981)
Bulk density (loose)	kg/dm ³	0.45 – 0.60	Internal method (Product weight in 1dm ³ in free state)
		Not less than 0.65	Internal method (Product weight in 1dm ³ in a packed state by shaking)
Sulphur dioxide content (SO ₂), no more than	mg/kg	10.0	Iodometry (Oxidation of sulfurous acid in a 50% solution of maltodextrin in the presence of a starch indicator)
Solubility, not less than	%	98.0	Internal method (Dissolving 50 g of maltodextrin in 100 g hot water)
pH value	pH units	4.5-6.5	pH-metry 40 % solution of maltodextrin
Particles size: Residue on sieve 200 µm, not more	%	5.0	Granulometry
Particles size: Residue on sieve 40 µm, not less than	%	90.0	Granulometry

Carbohydrate composition (in DS)

Glucose (DP ₁)	%	Not more 1.0	HPLC (Ref. ISO 10504)
Maltose (DP ₂)	%	Not more 3.0	HPLC (Ref. ISO 10504)
Maltotriose (DP ₃)	%	Not more 6.0	HPLC (Ref. ISO 10504)
Higher sugars (DP ₄₊)	%	On balance	HPLC (Ref. ISO 10504)

Food safety parameters

Total Aerobic and Anaerobic Microbial Count, no more than	CFU/g	100,0	Ref. ISO 4833
Yeast, no more than	CFU/g	50,0	Ref. ISO 7954
Molds, no more than	CFU/g	100,0	Ref. ISO 7954
Coliforms	CFU/1,0 g	not allowed	Ref. ISO 4831, ISO 4832
Pathogenic microbes including Salmonella	CFU/25 g	not allowed	Ref. EN ISO 6579-1

Content of Heavy Metal (mg/kg), no more than

Lead (Pb)	0.50	Atomic absorptive method (mineralization and determination with atomic absorptive spectrometer)
Cadmium (Cd)	0.10	
Arsenic (As)	0.50	
Mercury (Hg)	0.02	

Content of GMO (PCR Real - Time)

Genetically Modified Organisms	not allowed	PCR Real – Time (Ref. ISO 21569, ISO 21571)
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Additional information

Shelf life is 2 years. Maltodextrin must be stored at relative humidity not exceeding 75%

Standart packing – 25 kg paper bags with PE lining.

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