

PRODUCT SPECIFICATION

DATE OF ISSUE
23-10-2023




ORGANIC GUAR GUM (E412)
NATUURLIJK NATUURLIJK PRODUCT CODE:
X1530, X1531, X1532, X1590

PRODUCTION:
26102505

NATUURLIJK
NATUURLIJK
special food ingredients

1. PRODUCT IDENTIFICATION

1.1 Supplier product information

Product name	Organic guar gum		
Production	26102505		
Product code	Content	EAN	Packaging
X1530	60g	8718309830328	Plastic jar and screw lock cap with warranty seal. Jar =  Cap = 
X1531	150g	8718309830335	
X1532	700g	8718309830342	
X1590	10kg	8718309830847	Blue bag =  in box

1.2 Scientific product information

Single ingredient

Main use	Thickening agent
Chemical name	gum guar from organic farming
Chemical formula	guar gum is a polysaccharide
Production method	Guar gum powder is the ground and dried endosperm obtained from the seeds of the guar plant (<i>Cyamopsis tetragonolobus</i>), a leguminous plant that grows mainly in arid and semiarid regions like India and Pakistan, where it grows well because of its drought resistance.

1.3 Legislative product information

CAS number	9000-30-0		
EU food additive	E412		
Country of Origin	India		
Certification	Organic	Certification number	103446
	Institute	Skal NL-BIO-01	

2. PRODUCT INFORMATION

2.1 Physical and Chemical properties

	Unit	Specification	Method
Appearance		powder	
Colour		cream - white	
Odour/taste		neutral	
Moisture	%	max. 9	

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Solubility	Soluble but forms very viscous solutions which become pasty at concentrations greater than 5%		
Protein	%	max. 7	(N 6,25)
Particle size	mesh +50	max. 1%	
	mesh -200	max. 20%	
Galactomannans	%	min. 78	
pH		5,5 – 7,5	1% solution
Viscosity*	cps	4.500 – 5.500	1 % at 20°C after 24 hours

2.2 Microbiological data

Total plate count	Cfu/g	< 1.000	
Yeasts and moulds	Cfu/g	< 500	
E Coli	2 g	absent	
Salmonella	25g	absent	

2.3 Chemical analyses

Heavy metals	ppm	<20	
Ethylene oxide (total)	mg/kg	0,010	

2.4 Nutritional Information

2.4.1 Nutritional Values

Energy	kJ/100g	628	
Energy	kcal/100g	150	
Protein	g/100g	5,0	
Carbohydrate:	g/100g	0	
Of which Sugars	g/100g	0	
Polyols	g/100g		
Starches	g/100g		
Others	g/100g		
Fat:	g/100g	1,0	
Of which Saturated	g/100g		
Mono-unsaturated	g/100g		
Poly-unsaturated	g/100g		
Transfatty acids	g/100g		

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Cholesterol	mg/100g		
Water	g/100g	9	
Organic acid	g/100g		
Dietary fiber	g/100g	82	

2.4.2 Minerals

Sodium (Na)	g/100g	0,02	
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3. FOOD INTOLERANCE

3.1 Allergens

Yes = ✓ / No = ✗	Contains	Direct Contamination	Cross-Contamination (Risk)
Celery and celery products	✗	✗	✗
Cereals containing gluten and products produced with these	✗	✗	✗
Crustaceans	✗	✗	✗
Eggs and egg products	✗	✗	✗
Fish and fish products	✗	✗	✗
Lupin and products thereof	✗	✗	✗
Milk and milk products	✗	✗	✗
Molluscs and products thereof	✗	✗	✗
Mustard and mustard products	✗	✗	✗
Nuts and nut products	✗	✗	✗
Peanuts and peanut products	✗	✗	✗
Sesame and sesame products	✗	✗	✗
Soybean and soybean products	✗	✗	✗
Sulphite (E221 - E228)	✗	✗	✗
Sulphur dioxide	✗	✗	✗

3.2 Suitability for other diets:

Coeliacs	✓	Lactose intolerant	✓
Halal		Vegans	✓

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Kosher		Vegetarian	✓
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3.3 GMO Declaration:

Organic guar gum does not contain genetically modified organisms and is not produced using raw materials of a genetically modified origin. At no stage during production does the product come into contact with genetically modified organisms.

3.4 Irradiation / nanotechnology:

Organic guar gum is not treated with ionizing radiation, and free of nanotechnology.

4. STORAGE CONDITIONS

Storage conditions	In closed original packaging. Must be kept cool and dry. Keep container closed to avoid moisture pick-up.
Shelf life	36 months after production, under the above mentioned conditions.

5. FOOD SAFETY

5.1 Hygiene:

This product is produced in a facility with an on HACCP based food safety system.

5.2 Identifications of dangers:

Classification of the substance (Regulation (EC) No 1272/2008)	Not classified. (non- hazardous)
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6. EXTENDED PRODUCT INFORMATION

6.1 Usage

Guar Gum Powders belong to the group of Galactomannans with unique thickening and binding properties both in cold and hot water systems in very low concentrations. Guar gum is economical because it has almost eight times the water-thickening potency of cornstarch, only a very small quantity is needed for producing sufficient viscosity. It can be used as a thickener, maintaining homogeneity and texture, work as a binder and improve stability of products.

Guar gum powder can be processed under the usual conditions, preferably under application of a high-speed stirrer. Pre mixing with other dry ingredients such as sugars or salt is preferred.

Application of guar gum powder in ice cream production

Guar gum helps inhibit the formation of large ice crystals by binding water molecules, thereby creating a smoother texture. This prevents the ice cream from becoming icy and reduce wateriness in ice cream.

Guar gum helps to increase the viscosity of ice cream. As the viscosity increases in ice cream, the smoothness of texture and resistance to melting increases. And it reduces ice and lactose crystal growth during storage.

Guar gum prevents wheying off (syneresis) as well as shrinkage during storage. (wheying off can be defined as leakage of a watery layer during the melting of the ice cream).

It can also help to decrease the fat content with increase in water concentration in the formulation.

Dosage: 0,2-0,5% guar gum powder in the ice cream mix.

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Dosage: 0,10 – 0,60%

Use	Food Product	Functions and/or benefits
Beverages		Minimum flavor contribution; improved mouthfeel; prolonged suspension time of fruit particles; reduced rate of loss of carbonation; bodying agent.
Canned foods	Soups	Improved suspension of meat and vegetable chunks; improved mouth feel.
Cooked foods	Gravies, sauces	Smooth, uniform product, free of lumps; eye-appealing sheen; good pour characteristics; improved cling to meat or mashed potato.
Dairy products	Cheese spread, cold-pack cheese, creaming mixture	Uniform viscosity; prevention of syneresis; improved shelf life; retention of product quality under favorable storage conditions; better distribution of particles.
	Ice cream	Rapid dispersion; good stabilizing and bodying; good uniformity and body.
Dry foods	Dry mixes	Rapid thickening; reduced mixing time; rapid cold-water hydration.
	Instant mixes	No need for boiling; increased viscosity; moisture retention; better shelf life.
Frozen foods		Prevention of juice and fruit separation on thawing; suitability for freeze-thaw products.
Icings and frostings		Rapid cold-water hydration; easy incorporation of overrun; good flavor properties; prevention of icing weeping in the wrapping.
Jams and jellies		Uniform body; cold-thickening ability; resistance to breakdown in the heating-cooling process.
Meat products		Immobilization of free water; improvement of flow rate during stuffing in casings, producing firmness and increased viscosity in encased products.
Noodle manufacture		More elastic properties; improved mouthfeel; improved dough handling.
Pie fillings	Cream, fruit, jelly	Adaptability to any method of processing, allowing full flavor to come through; impartation of good body and viscosity; eye appeal.
Sauces and syrups		Uniform body; water retention; heat-cold resistance.
Others	Mustard manufacturing	Softening of harsh vinegar flavor; thickening; preservation of mustard flavor.
	Tortilla manufacturing	Retardation of product's cracking tendency; reducing of dough stickiness; better machining quality.

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	Barbeque sauce	Long shelf life; prevention of separation; free-flowing qualities; good cling to meat.
	Doughnut manufacturing	Prevention of grease penetration into the doughnut.

6.2 Dictionary

NL	The Netherlands	Guarpitmeel Guargom
GB	Great Britain (UK)	Guar gum Guaran
DE	Germany	Guarkernmehl (Guaran)
FR	France	Gomme de Guar
ES	Spain	Goma guar
PT	Portugal	Goma de guar
IT	Italy	Gomma di guar
DK	Denmark	Guar gummi Guargummi
NO	Norway	Guar gum
SE	Sweden	Guarkärnmjöl
FI	Finland	Guarkumi
IS	Iceland	Gúar gúmmí
CZ	Czech Republic	Guma guar
SK	Slovak Republic	guarová guma
HU	Hungary	Guargumi
HR	Croatia (Hrvatska)	Guar guma
GR	Greece	Κόμμι γκουάρ
SI	Slovenia	Guar gumi
PL	Poland	Guma guar
RO	Romania	Guma guar
BG	Bulgaria	Гума гуар
RU	Russian Federation	Гуаровая камедь
TR	Turkey	Guar zamkı

7. DISCLAIMER

Although we take great care in setting up this product specification, we cannot accept any liability for the completeness and fully accurateness of the information provided. The content of this Product Specification is completed to the best of our knowledge.

This document does not dismiss the user of his legal obligations with respect to food safety.

This product specification replaces any previously issued specifications.