

ARABIC GUM

GOMME ARABIQUE

E 414 – Thickener, binding agent

GENERAL CHARACTERISTICS	
Physical aspects	White to off-white powder
Organoleptic aspects	Odourless, neutral or bitter taste
Origin	<p>Acacia gum is a dried exudation obtained from the stems and branches of strains of <i>Acacia senegal</i> (L) Willdenow or closely related species of <i>Acacia</i> (family Leguminosae). Their insoluble impurities (bark fragments...) are washed off through hot dissolution, filtration and drying.</p> <p>Acacia trees are cultivated in tropical and subtropical regions, mostly in Africa (Senegal, Sudan, banks of the Nile) and in Australia.</p>
Chemical status	<p>Names : Gum Arabic, Acacia gum</p> <p>Gum Arabic mainly consists of high molecular weight polysaccharides and their calcium, magnesium and potassium salts, which on hydrolysis yield arabinose, galactose, rhamnose and glucuronic acid.</p> <p>Molecular weight : around 350 000</p>

DESCRIPTION	
Function / Properties	<ul style="list-style-type: none"> ➤ Binding and thickening agent ➤ Solubility : <ul style="list-style-type: none"> ○ Easily soluble in water (hydrophilic), gives a mucilaginous liquid ○ Insoluble in ether ➤ Precipitates in presence of some heavy metal salts ➤ Anti-crystallizing, hygroscopic ➤ Viscosity: <p>Depending on the pH :</p> <ul style="list-style-type: none"> ○ pH 4.5 to 9 : high viscosity ○ pH 3 to 4.5 and higher than 9 : low viscosity <p>Depending on the temperature :</p> <ul style="list-style-type: none"> ○ Lower than 50°C : variable viscosity ○ From 50 to 70°C : negligible variations of viscosity ○ Up to 90°C : viscosity drops, and over 90°C flocculation is observed <p>A high speed stirring makes the viscosity decrease proportionally to the particle size (that is not the case at 60°C)</p> <p>Tragacanth gum reduces the viscosity of gum arabic.</p> ➤ Easily hydrolyzed, especially when heated and in an acid medium ➤ Forms a stable structure with gelatin and other proteins and colloids ➤ Has a stabilizing effect on colloidal solutions ➤ Considered as stable under the action of microorganisms but when partially hydrolyzed, can provide fermentable sugars

Applications	<ul style="list-style-type: none"> ➤ Thickener in diet products ➤ Oenology : prevents wine spoilage ➤ Beverages: can prevent sedimentation but not the appearance of cloudiness in unstable solutions. Should be added after the clarification because it prevents flocculation. ➤ Stabilizing agent for flavoured alcoholic beverages made of grapes or apples. ➤ Coating agent for coffees and its derived products ➤ Used for sugar-coating for its waterproofness and its hardness ➤ Binding properties used in the manufacture of tablets ➤ May be used as an aroma carrier thanks to its adhesive properties related to its degree of branching ➤ Other applications : textile industry, papermaking, glue production, lithography (protection of off-set plates)
Instructions of use / Dosage	<ul style="list-style-type: none"> ➤ Brush application : 70 g/L ➤ Machine application : 30 to 50 g/L ➤ Milks and ice creams : 0.4 to 0.7 % ➤ Beverages : 0.02 % ➤ Biscuits and doughs : 0.008 to 0.02 % of the final product ➤ Food gum syrups : 20 g/L of sugar syrup ➤ Sugar-coating : 30 to 50 % in solution

REGULATORY LIMITS		
CATEGORIES OF FOODSTUFFS		MAXIMUM QUANTITY
01 Dairy products and analogues		
01.3 Unflavoured fermented milk products, heat-treated after fermentation 01.4 Flavoured fermented milk products including heat-treated products 01.6.3 Other creams 01.7.1 Unripened cheese excluding products falling in category 16 – Except mozzarella 01.7.5 Processed cheese 01.7.6 Cheese products (excluding products falling in category 16) 01.8 Dairy analogues, including beverage whiteners		Quantum Satis (Group I – Additives)
03 Edible ices		Quantum Satis (Group I – Additives)
04 Fruit and vegetables		
04.2.1 Dried fruit and vegetables 04.2.2 Fruit and vegetables in vinegar, oil, or brine 04.2.4.1 Fruit and vegetable preparations excluding compote 04.2.5.4 Nuts butter and nut spreads 04.2.6 Processed potato products		Quantum Satis (Group I – Additives)
05 Confectionary		

	<p>05.1 Cocoa and chocolate products as covered by Directive 2000/36/EC - Only energy-reduced or with no added sugar – As glazing agent only</p> <p>05.2 Other confectionary including breath freshening microsweets – May not be used in jelly mini-cups, defined, for the purpose of this Regulation, as jelly confectionery of a firm consistence, contained in semi rigid mini-cups or mini-capsules, intended to be ingested in a single bite by exerting pressure on the mini-cups or minicapsule to project the confectionery into the mouth.</p> <p>05.3 Chewing gum</p> <p>05.4 Decorations, coatings and fillings, except fruit based fillings covered by category 4.2.4 Fruit and vegetable preparations, excluding products covered by 5.4</p>	Quantum Satis (Group I – Additives)
07 Bakery wares		
	<p>07.1 Bread and rolls except products in 7.1.1 Bread prepared solely with the following ingredients: wheat flour, water, yeast or leaven, salt and 7.1.2 Pain courant français; Friss búzakenyér, fehér és félbarna kenyerek</p> <p>07.2 Fine bakery wares</p>	Quantum Satis (Group I - Additives)
14 Beverages		
	<p>14.1.2 Fruit juices as defined by Directive 2001/112/EC and vegetable juices – Only vegetable juices</p> <p>14.1.3 Fruit nectars as defined by Directive 2001/112/EC and vegetable nectars and similar products – Only vegetable nectars</p> <p>14.1.4 Flavoured drinks</p> <p>14.1.5.2 Other - excluding unflavoured leaf tea; including flavoured instant coffee</p> <p>14.2.1 Beer and malt beverages</p> <p>14.2.3 Cider and perry</p> <p>14.2.4 Fruit wine and made wine</p> <p>14.2.5 Mead</p> <p>14.2.6 Spirit drinks as defined in Regulation (EC) No 110/2008 - except whisky or whiskey</p> <p>14.2.7.1 Aromatised wines</p> <p>14.2.7.2 Aromatised wine-based drinks</p> <p>14.2.7.3 Aromatised wine-product cocktails</p> <p>14.2.8 Other alcoholic drinks including mixtures of alcoholic drinks with non-alcoholic drinks and spirits with less than 15 % of alcohol</p>	
16 Desserts	excluding products covered in categories 1 Dairy products and analogues, 3 Edible ices and 4 Fruit and vegetables	Quantum Satis (Group I - Additives)
<p>Non exhaustive list – For others applications, it is your responsibility to check that it complies with regulation (EC) N° 1333/2008 on food additives of 16th December 2008 and amended versions.</p>		

SPECIFICATIONS

Chemicophysical specifications



The information contained in this publication is believed to be true and accurate to the best of our knowledge. It is the responsibility of the user to check before use that the products are suitable for the intended purposes. The users are also obliged to ensure that all legal requirements for the use of the products are being complied with; this also includes the legality of the use of the product itself. This version of the specification replaces all previous versions, and is valid without signature.

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Moisture	Max. 17 % *
Total ashes	Max. 4 % *
Acid-insoluble ash	Max. 0.5 % *
Acid-insoluble matter	Max. 1 % *
Specific optical rotation	-25° to -35°
Products of hydrolysis	Corresponding to the requirements *
pH (at 10% in water)	4 – 5
Starches and dextrins	Corresponding to the requirements *
Tannins	Corresponding to the requirements *
<u>Heavy metals</u>	
- Arsenic	Max. 3 ppm *
- Lead	Max. 2 ppm *
- Mercury	Max. 1 ppm *
- Cadmium	Max. 1 ppm *
* In accordance with the requirements regarding purity criteria of the regulation (EU) No 231/2012 of March, 9 th , 2012 and its modified versions.	

NUTRITIONAL INFORMATION FOR 100 G	
Energetic Value	199 kcal / 800 kJ
Lipids	Max. 0.3 g
- Saturated Fatty Acids	0 g
Carbohydrates	Max. 0.2 g
- Sugars	Max. 0.2 g
Protein	2.3 g
Dietary fibres	Min. 85 g
Salt	14 g
Sodium	5.77 g

ALLERGENS		
	Presence	Cross contamination
Peanuts and products thereof		
Celery and products thereof		
Cereals, gluten and products thereof		
Crustaceans and products thereof		
Tree nuts and products thereof		
Sesames seeds and products thereof		
Molluscs and products thereof		
Mustard and products thereof		
Milk and milk products		
Lupin and products thereof		
Eggs and products thereof		
Fish and products thereof		
Soya and products thereof		
Sulphur dioxide and sulphites > 10 ppm		
Coconuts and products thereof		

REGULATORY DATA	
GMO	Referring to regulation EC N° 1829/2003 and N° 1830/2003, the product hasn't been produced of genetically modified organisms nor contains genetically modified substance.
Ionization	The product hasn't been treated by ionization, and it is not made with raw materials treated by ionization.
Nanomaterials	The product is not made with nanotechnologies and does not contain nonmaterial referring to regulation EC n°1169/2011.
N° CAS / CE	9000-01-5 / 232-519-5

DIET		
	Suitable for	Certified
Halal	X	
Kasher	X	X
Vegetalian	X	
Vegetarian	X	

PACKAGING /STORAGE	
Packaging	150 g net plastic tin – Box of 40 plastic tins (6kg) – Pallet of 30 boxes (180 kg) 1 kg net plastic tin – Box of 12 tins (12 kg) - Pallet of 30 boxes (360kg) 25 kg paper bag – pallet of 20 bags (500 kg)
Storage conditions	Store dry place at room temperature, in its original closed packaging.
Shelf life	3 years in its original and unopened packaging

ARTICLE CODE	150g ⇒ 10131	1 Kg ⇒ 785A	25 Kg ⇒ 786F
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We reserve the right to modify this data according to the evolution of our products.

Société Louis François S.A.S

17 rue des Vieilles Vignes – Z.A Pariest – BP 86 – Croissy Beaubourg – 77314 Marne La Vallée Cedex 2 – France
01 64 62 74 20 | Fax : 01 64 62 74 36 | clients@louisfrancois.com