SODIUM ALGINATE HV

E 401 – Thickener, Gelling agent

GENERAL CHARACTERISTICS	
Physical aspects	Cream white to light beige powder
Organoleptic aspects	Odourless and tasteless
Origin	Brown seaweeds
Chemical status	Polysaccharide Chemical name : Sodium salt of alginic acid Chemical formula : $(C_6H_7NaO_6)_n$ Molecular weight : 10 000 to 600 000 (typical average)

DESCRIPTION	
Function / Properties	➢ Food additive used as a texturizing agent: thickener and/or gelling agent. ➢ Gels in an acid or calcic medium ➢ Heat-stable, stable to freezing / deep freezing and thawing, in acid or alkaline media, in presence of alcohol
Applications	➢ Viscosity regulator ➢ Makes batters more tolerant to beating ➢ Doesn't affect the flavour of the final product ➢ Stabilizes emulsified products ➢ Gives a better smoothness and stability to dairy products ➢ Acts as an appetite suppressant in low-calorie products ➢ Often used in dairy products, sauces, desserts and diet products

INSTRUCTIONS OF USE	
APPLICATIONS	RECOMMENDED DOSAGE
Dairy products	0.1 to 0.5%
Sauces	0.5 to 1%
Desserts	0.5 to 1%

RECIPES	
Tomato pâte de fruit and mozzarella spherification	
Ingredients	Tomato pâte de fruits - 440g tomato pulp - 160g tomato concentrate - 2,8g soy sauce - 1g dried thyme - 4g kampot black pepper - 20g yellow pectin - 1kg maltitol powder - 20g of 50% tartric acid solution Alginate bath for the spherification - 1L water - 5g HV alginate Mozzarella spherification - 300g mozzarella - 200g full fat milk - 2g calcium lactate
Process	Tomato pâte de fruit - Infuse the tomato pulp with the tomato concentrate, soy sauce, thyme and pepper - Mix the pectin into the maltitol - Incorporate to the former mix - Bring everything to a boil - Add the acid solution - Pour into a frame Mozzarella spherification - Mix the HV alginate in water - Blend the mozzarella in the milk with lactate - Pour in a flexipan - Deep-freeze - Dip 2 minutes in the alginate bath Plating - Put the spherification on top of the pâte de fruit - Decorate with basil and black olives
Strawberry pearls	
Ingredients	Alginate bath for the spherification - 5L water (Evian) - 25g HV sodium alginate - 10g strawberry red food colouring - 2g sparkly silver food colouring Strawnerry spherification - 8 kg strawberry puree (10 % sweetened) - 2 kg lime juice - 300g calcium lactate - 10g xanthan gum

Process	- Mix the water, alginate and the red and silver food colourings - Remove the bubbles - Mix the sweetened strawberry puree, lime juice, calcium lactate and xanthan gum - Remove the bubbles - Take the second preparation with a half-sphere shaped spoon, and make it drop into the first preparation. The strawberry pearl will gel as it touches the alginate and water preparation.
Apple and pear appetizer	
Ingredients	Green apple – vanilla jelly - 350g apple puree (10 % sweetened) - 1g vanilla pod - 7g plant-based gelling agent Alginate bath for the spherification - 1L water - 5g HV alginate - 1g red food colouring Pear spherification - 800g pear puree (10% sweetened) - 200g pear brandy - 30g calcium lactate - 1g xanthan gum
Process	Green apple – vanilla jelly - Bring the apple puree to room temperature with the vanilla pod - Incorporate the gelling agent with a whisk - Heat the mix to 70°C - Pour in an adequate container Spherification - Mix the alginate and food colouring in water, and remove the bubbles - Mix the pear puree with the brandy, lactate and xanthan gum - Make the spherifications
Red Hemingway daiquiri	
Ingredients	Rum – maple jelly 1,5L water 1,2L white rum 1,05L thick maple syrup 90g plant-based gelling agent Alginate bath for the spherification 5L water 25g HV alginate 10g red food colouring 2g sparkly silver food colouring Strawberry pearls 8kg strawberry puree (10% sweetened) 2kg lime juice 300g calcium lactate 10g xanthan gum

Process	Rum – maple jelly - Heat the water, rum and thick maple syrup to 40°C - Incorporate the plant-based gelling agent with a whisk - Heat the whole mix to 70°C - Pour in a frame or an adequate container Spherification - Mix the alginate and food colouring in water and remove the bubbles - Blend the strawberry puree, lime juice, lactate and xanthan gum - Make the spherifications
Like a sunny side up egg	
Ingredients	Coconut mousse : - 725g of 35% fat cream - 30g sugar - 75g powdered coconut milk - 96g gelatin mass - 10g lime juice - 85g medium grated coconut Sodium alginate bath for the spherification - 909,10g water - 90,90g HV sodium alginate Mango spherification - 658,50g mango puree (10% sweetened) - 329,50g mango juice - 9,8g calcium lactate - 2,4g xanthan gum
Réalisation	Coconut mousse - Mix the sugar and coconut milk in the cream - Bring to a boil - Incorporate the gelatin mass - Add the lime juice - Cool down to 6°C - Whip with a robot while incorporating the grated coconut - Spread in a frame Spherification - Blend the alginate in water and remove the bubbles - Mix the xanthan gum, calcium lactate, mango juice and mango puree together, and remove the bubbles - Make the spherifications Plating - Cut coconut mousse squares - Plate them in a checked pattern on a plate - Put the mango spheres on the mousse squares

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** **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)
	01.6.1 Unflavoured pasteurised cream (excluding reduced fat creams)	Quantum Satis
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)
	04.1.2 Peeled, cut and shredded fruit and vegetables - only prepacked refrigerated unprocessed fruit and vegetables ready for consumption, to be sold to the final consumer	2400 mg/kg – May only be used in combination with E 302 as glazing agents and with a maximum level of 800 mg/kg of E 302 in the final food.
	04.2.5.2 Jam, jellies and marmalades and sweetened chestnut puree as defined by Directive 2001/113/EC **04.2.5.3 Other similar fruit or vegetable spreads**	10 000 mg/kg (E 400-404 : Alginic acid – alginates) – Maximum individually or in combination with E 400-404, E 406, E 407, E 410, E 412, E 415 and E 418
05 Confectionary		
	05.1 Cocoa and chocolate products as covered by Directive 2000/36/EC - only energy-reduced or with no added sugar **05.2 Other confectionery 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 **05.3 Chewing gum** **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	Quantum Satis (Group I – Additives)

07 Bakery wares		
	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 **07.2 Fine bakery wares**	Quantum Satis (Group I - Additives)
12.6 Sauces		Quantum Satis (Group I - Additives)
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)
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.		

SPECIFICATIONS	
Chemicophysical specifications	
Moisture	Max. 15 % *
Viscosity (1% solution at 20°C, Brookfield RV, 20 rpm)	800 to 1000 mPa.s
pH (1% solution)	6.0 – 8.5
Particle size <125 µm (US 120#)	Min. 90%
Particle size <500 µm (US 35#)	Min. 99%
Heavy metals	
- **Lead**	Max. 5 ppm *
- **Mercury**	Max. 1 ppm *
- **Arsenic**	Max. 3 ppm *
- **Cadmium**	Max. 1 ppm *
Microbiological specifications	
Total plate count	Max. 5000 CFU/g *
Yeasts	Max. 500 CFU/g *
Moulds	Max. 500 CFU/g *
E. coli	Absence in 5 grams *
Salmonella	Absence in 10 grams *
*** In accordance with the requirements regarding purity criteria of the regulation (EU) No 231/2012 of March, 9th, 2012 and its modified versions.**	

NUTRITIONAL INFORMATION FOR 100 G	
Energetic Value	130 kcal / 530 kJ
Lipids	0 g
- **Saturated Fatty Acid**	0 g
Carbohydrates	0 g
- **Sugars**	0 g
Protein	0 g
Dietary fibres	66 g
Sodium	9.3 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	9005-38-3 / -
Security data sheet	A security data sheet is available upon request

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 12 bags (300 kg)
Storage conditions	Store in a cool and dry place, in its original packaging until use.
Shelf life	1 year in its original and unopened packaging

ARTICLE CODE 150g ⇒ 10041 1Kg ⇒ 142A 25Kg ⇒ 143K

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