

# PRODUCT SPECIFICATION

DATE OF ISSUE  
25-10-2016




**ORGANIC AGAR-AGAR (E406)**  
NATUURLIJK NATUURLIJK PRODUCT CODE:  
X1553, X1554, X1555, X1591

**PRODUCTION:**  
17192101

**NATUURLIJK**  
**NATUURLIJK**  
*special food ingredients*

## 1. PRODUCT IDENTIFICATION

### 1.1 Supplier product information

<b>Product name</b>	Agar-agar		
<b>Production</b>	17192101		
<b>Product code</b>	<b>Content</b>	<b>EAN</b>	<b>Packaging</b>
X1553	60g	8718309830526	Plastic jar and screw lock cap with warranty seal. Jar =  Cap = 
X1554	90g	8718309830533	
X1555	400g	8718309830540	
X1591	5kg	8718309830854	Blue bag =  in box

### 1.2 Scientific product information

<b>Single ingredient</b>	
Main use	Gelling agent
Chemical name	Agar, Gelidium extract
Production method	Agar is obtained from red seaweeds of the Gelidium species, collected from the Atlantic coast of Spain. Agar is extracted using hot, dilute alkali. The solution is cooled to form a very firm brittle gel, which is frozen to disrupt the gel structure. When the gel is thawed, impurities dissolved in the water can be expelled using high pressure, the gel is dried and ground to produce powdered agar.

### 1.3 Legislative product information

CAS number	9002-18-0		
EU food additive	E406		
Country of Origin	Spain		

## 2. PRODUCT INFORMATION

### 2.1 Physical and Chemical properties

	Unit	Specification	Method
Appearance		flakes/powder	
Colour		grayish/beige Opaque and colorless when dissolved	
Odour/taste		neutral	
Melting point	°C	85 - 95	
Setting point	°C	30 - 40	
Gel Strength (Bloom)	g/cm <sup>2</sup>	650	

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Solubility		boiling water	
pH		6,8 -7,0	

## 2.2 Microbiological data

Total plate count	CFU / g	<5000	
E Coli	CFU / g	Absent	
Salmonella	/ 25g	Absent	
Enterobacteriaceae	/ 100g	<10	
Clostridium	UFC / g	<10	
Coliforms	col/g	<100	

## 2.3 Chemical analyses

Arsenic (As)	ppm	<3	
Heavy metals	ppm	<10	
Lead (Pb)	ppm	<10	

## 2.4 Nutritional Information

### 2.4.1 Nutritional Values

Energy	kJ/100g	164	
Energy	kcal/100g	657	
Protein	g/100g	0,4	
Carbohydrate:	g/100g	0,4	
Of which Sugars	g/100g	<0,5	
Polyols	g/100g		
Starches	g/100g		
Others	g/100g		
Fat:	g/100g	1,4	
Of which Saturated	g/100g	0,2	
Mono-unsaturated	g/100g		
Poly-unsaturated	g/100g		
Transfatty acids	g/100g		
Cholesterol	mg/100g		
Water	g/100g		
Organic acid	g/100g		

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Dietary Fiber	g/100g	79,4	
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## 2.4.2 Minerals

Sodium	mg/100g	410	
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## 3. FOOD INTOLERANCE

### 3.1 Allergens

Yes = ✓ / No = ✗	Contains	May contain traces	
Barley	✗	✗	
Beef	✗	✗	
Cacao	✗	✗	
Carrot	✗	✗	
Celery and celery products	✗	✗	
Cereals containing gluten and products produced with these (wheat, rye, oats, spelt, barley)	✗	✗	
Chicken	✗	✗	
Coriander	✗	✗	
Crustaceans and Shellfish	✗	✓	
Eggs and egg products	✗	✗	
Fish and fish products	✗	✗	
Glutamate	✗	✗	
Lupin and products thereof	✗	✗	
Milk and milk products (including Lactose)	✗	✗	
Molluscs and products thereof	✗	✗	
Mustard and mustard products	✗	✗	
Nuts and nut products (almonds, hazelnuts, walnuts)	✗	✗	
Peanuts and peanut products	✗	✗	
Pork	✗	✗	

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Sesame and sesame products	X	X	
Soybean and soybean products	X	X	
Sulphite (E221 - E228)	X	X	
Sulphur dioxide (>10mg/kg)	X	X	

## 3.2 Suitability for other diets:

Coeliacs	✓	Lactose intolerant	✓
Halal	✓	Vegans	✓
Kosher	✓	Vegetarian	✓

## 3.3 GMO Declaration:

Agar-agar 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.

## 4. STORAGE CONDITIONS

Storage conditions	In closed original packaging. Must be kept cool and dry in a well-ventilated place.
Shelf life	5 years 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:

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

### 6.1 Usage

Agar-agar powder from Natuurlijk Natuurlijk is made from atlantic seaweed. This vegetable gelatin is used as a thickener, gelling and binding ingredient. It has a gelling strength of 650 Bloom. The Bloom value is an important criterion for the quality of gelatin. It is generally between 30 and 300 for animal gelatin. It indicates the jelly strength or firmness of edible gelatin.

Agar gels are completely reversible and may be melted and reset without any loss of gel strength. The gels have a characteristic firm brittle texture. This gel structure is not affected by salts or proteins. The difference between melting and setting points, is much greater with agar than with other gelling agents. Agar gels are used in the baking industry for their durability at high temperatures.

Agar applications are fundamentally based on its enormous gelling power, and total gel reversibility. Agar is unique among polysaccharides in that gelation occurs at a temperature that is far below the gel's melting temperature. Many uses of agar depend upon its high

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hysteresis. Moreover, as a gelling agent, agar is very useful in preparing strong water-gel systems for molds, or for creating the molds themselves.

The brittle, crumbly-type texture of agar gels can be converted to an elastic and tender one by addition of Locust bean gum. Which makes a gel that can even be stronger than agar alone. The texture of agar-based products such as meringues, pie fillings, and marshmallows can be modified by the addition of gum Arabic. Gum Arabic softens the texture of agar gels and produces a tender consistency.

It is important to note that dissolution of agar in boiling acid solutions (like fruit juice) causes significant degradation. Gel stability is best achieved at pHs slightly over 7,0. The addition of 10mg baking soda to slightly acidic agar improves gel strength.

Agar solutions are hazy. When agar gels are frozen (at around 0°C), they collapse upon thawing and do not recover their gel phase. Nevertheless, the gel can be remelted and regelled, producing a new gel with nearly identical properties to the original one.

Dosage: 5 to 10 grams per liter, presoaking agar (>5 minutes) improves dissolving

- Agar is defined as a strongly gelling hydrocolloid from marine algae.
- Agar is unique for commercial purpose because it forms firm gels at concentrations as low as 1%.
- Once the agar solution starts to boil, it should be boiled (without foaming) for exactly 20 seconds.
- If foaming occurs, disperse it by swirling and stirring for a few minutes.
- A good level of agar for use in icings will range from 0,2 to 0,5%
- At concentrations of 0,1 to 1,0%, agar is a useful antistaling agent in breads and cakes.
- Tannic acid (found, e.g., in squash, apple, and prune) may inhibit agar gelation. This can be avoided by adding small quantities of glycerol.

## 6.2 Dictionary

NL	The Netherlands	Agar agar (Agar)
GB	Great Britain (UK)	Agar agar (Gelidium extract, Agar, Kanten)
DE	Germany	Agar-Agar (Agar)
FR	France	Agar-agar (Agar)
ES	Spain	Agar-agar (Agar)
PT	Portugal	Agar-ágar
IT	Italy	Agar-agar (Agar)
DK	Denmark	Agar-agar (Agar)
NO	Norway	Agar
SE	Sweden	Agar
FI	Finland	Agar
IS	Iceland	Agar
CZ	Czech Republic	Agar
SK	Slovak Republic	Agar
HU	Hungary	Agaragar

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HR	Croatia (Hrvatska)	Agar
GR	Greece	'Aγap
SI	Slovenia	Agar
PL	Poland	Agar-agar (Agar)
RO	Romania	Agar-agar (Agar)
BG	Bulgaria	Arap
RU	Russian Federation	Arap-arap (Arap)
TR	Turkey	Agar

## 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.