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Food Ingredients For Bakery, Confectionery, Beverages, Brewing and Meat Processing

Agar-Agar

Agar is a mixture of a neutral, dominating polysaccharide called "Agarose" and a charged polymer called "Agaropectin". The agarose is composed of (1-4) linked 3,6-anhydro -a- - L - galactose alternating with (1-3) linked - b - D - galactose.

A charged agaropectin has the same repeating unit as agarose but weakly substituted by sulfate, methyl, and pyruvic acid acetal groups (C. ARAKI; J.Soc., Japan, 1937, 58, 1214).

The degree of methyl groups on the agarose depends on the red seaweed variety.

AGAR is a hydrophilic low calorie dietetic fiber.

Some Agar Properties:

AGAR can gelify or thicken products starting at 0,04%.

AGAR gels are stronger and firmer than obtained gels with other hydrocolloids.

AGAR gels are formed without any addition of chemicals or organics.

AGAR gels are formed independently of the pH or the contained solid matter.

AGAR has a high gelation hysteresis.

AGAR gels are thermoreversible.

AGAR has an excellent resistance to enzymatic hydrolysis

AGAR is compatible with proteins and other hydrocolloids.

AGAR has a good flavour release.

AGAR is a kosher product.

AGAR does not undergo any genetic modification.

Agar-Agar with its unique properties has a wide range of applications. For centuries it has been used as a high performance stabilizing, thickening and gelling agent. Its ability to produce clear, colourless, odourless and natural gells has been of great utility in the manufacturing of confectionery, glazing, icing coatings, piping jellies and many other innovative products.

The major application of AGAR AGAR is in the field of plant tissue culture. The growing interest in tissue culture as a standard method for the propagation of orchids and other ornamental plants, vegetables, fruits and other agricultural products has increased the demand for AGAR AGAR as a culture media.

AGAR as a culture media is widely used for practically all pathogenic and non-pathogenic bacteria and fungi because it is not easy to metabolise and has a good gel firmness, elasticity, clarity, stability. Because of its high gellifying power and its vegetal origin AGAR AGAR constitutes a natural non-toxic matrix for the formation of culture media in Microbiology.

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In prosthetic dentistry AGAR is used in the preparation of dental casts.

AGAR AGAR is useful as a laxative. When hydrated it provides smooth, non-irritant bulk in digestive tract. It is also used in preparation of emulsions, suspensions, capsules and suppositories in surgical lubricants and as a suspending agent for Barium Sulphate Radiology.

AGAR AGAR has been used for many centuries as a high performance gelling agent. Its ability to produce clear, colourless, odourless and natural gels without the support of other colloids has long been exploited by the food industry not only as a stabiliser and gelling agent but also in the manufacturing of confectionery aspicks, glazing, icing coatings, piping jellies, salad dressings, etc.

AGAR AGAR gellifies at 40° C and melts at 80° C. This unmatched natural hysteresis offers a definite advantage particularly with regard to the shelf life of food preparations.

AGAR AGAR is used in dairy based products when incorporation takes place at the pasteurisation stage. It is considered as a cost effective stabiliser for dairy products where water retention is of importance. It can also be mixed with other colloids to improve their final texture.

It provides crickets and other feeder insects with a safe, clean water source in a convenient gel form. This easy-to-use formula eliminates many of the problems associated with traditional watering methods, such as the formation of deadly bacteria and loss through drowning. Due to the unique characteristics, Agar has gained tremendous importance in the field of cricket farming.

Beverage & Food Industry: Agar can also be used in the production of various beverage and food, for example, jelly, ice-cream, bread, cake, soft candy and can as coagulator, thickening agent, emulsifier, anti-staling agent and stabilizer.

Fruit Juice Soft Candy: The transparency and taste of soft candy will become better than others as long as the formula is added by 0.8-1.5% of agar-agar.

Bread & Cake: Owing to its water-holding function, adding proper Agar-agar can prolong storage time of bread and cake and improve the color and their taste.

Meat can & ham: Adding 2% of agar-agar can form gel that can adhere effectively to scrap meat.

The clarifier of Beer: As auxiliary clarifier, agar-agar can accelerate the speed of clarifying and improve the effect of clarity.

Bakery & Pastry

Icings , Glazings , Whipped Creams , Piping Gels , Coatings , Cake Fillings , Pie Fillings
Toappings , Bread , Butter Spreads , Jams , Marmalades , Honey Spreads

Confectionery

Jellies , Fruits Jellies , Fruits Slices , Jellies for Coating , Soft Gums , Hard Gums , Wine Gums , Marshmallows , Meringues , Caramels , Toffees , Angel Kisses , Turkish Delights.

Dairy

Set Yoghurts , Stirred Yohgurts , Drinkable Yoghurts , Chocolate Milks ,
Puddings ,Custards , Milk Desserts , Ice Creams ,Sorbets ,Mousses ,Frozen
Mousses ,Milk Cheeses ,Cheese Cakes ,Liegeois

Dressings

Mayonnaises ,Ketchups ,Vegetable Sauces , Caramel Sauces Dressings

Drinks

Soft Drinks ,Fruit Juices ,Healthy Drinks ,Drinkable Jellies ,Dietary Fibre Drinks

Meats

Canned Meat ,Canned Poultry ,Aspics

Technical Applications

Microbiology ,Dentistry ,Agriculture ,Cosmetology

Microbiological Applications

Culture Media ,Medical Analytics

Molecular Biology Applications

Nucleic Acids Electrophoresis

Specification:

1. Powder

Color	white or yellowish cream powder
Odor -taste	odor - tasteless powder
Humidity	10% to 15%
Ashes	< 3,0%
PH(10% in suspension):	6,8 to 7,2
Mesh	80/100 or 150 mesh
Solubility	high
Gel Strenghts (gr/cm2):	800 to 1200
Viscosity	8 to 25 cps
Gelling temperatures:	35° to 43°C
Melting temperatures:	85° to 95°C
Heavy metals	< 20 ppm
Cadmium	< 1 ppm
Lead	< 5 ppm
Mercury	< 1 ppm
Arsenic	< 3 ppm

Microbiological data

Total plate count	< 5.000 ufc/gr
Moulds & Yeats	< 100 ufc/g
Salmonella	absent
E.Coli	absent

Packed in 25kgs plastic woven bags.

2. Strip

Jelley strength: 450g/CM2 Min.

Loss on drying 22%max

Residue after burning 5.0%max

Hot water insoluble 1.0%max

Water absorption ability 75ml max

Starch assay(add two drops of iodine solution): no blue color appearance

Packed in 20kgs plastic woven bags.