# **AGAR A**



## **Description**

Agar is a polysaccharide complex obtained through bleaching and hot water extraction of agarocytes from the red alga *Rhodophyceae*, found in the Pacific and Indian Oceans and in the Sea of Japan. The genera *Gelidium*, *Acanthopeltis*, *Ceramium*, *Pterocladia* and *Gracilaria* predominate in agar production. Agar is composed of about 70% agarose and 30% agaropectin.

**Agarose:** A neutral gelling fraction which consists of a linear polymer of alterrating D -galactose and 3,6-anhydrogalactose units.

**Agaropectin:** A non-gelling fraction which consists of -1,3-glycosidically linked D galactose units, some of which are sulfated at position 6.

Agar-A is bacteriology grade agar of highest quality.

## **Product Properties**

Appearance: White or light cream

Molecular weight: N/A CAS NUMBER: 9002-18-0

### Stability / Storage as supplied

Store at room temperature.

# **Solubility / Solution Stability**

Agar is strongly hydrophilic and can slowly absorb about 20 times its weight of cold water, swelling in the process. The solubility of agar powder was tested in water at 1 mg/ml with boiling, and obtains a clear, colorless solution. Agar is not soluble in alcohol.





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After autoclaving, a solution of 1.5% Agar-A is light amber color completely free of insoluble particulate. Agar-A solidifies into a haze-free, firm-surface gel. Color: white or light cream. pH: 6.0-7.5 (1.5% of solution). It is suitable for microbiological and tissue media.

## **Applications**

Agar is used in microbiology and bacteriology to make solid culture media for microorganisms; as an antistaling agent in bakery products, confectionery, meats and poultry; as a gelling agent is cosmetics, desserts and beverages; as a corrosion inhibitor; in sizing for paper and silks; in adhesives; in the dyeing and printing of textiles and fabrics; and as a protective colloid in ice cream, pet foods, health foods, laxatives, pharmaceuticals, dental impressions, lab reagents and photographic emulsions.

#### **Related Products**

Code	Product Name	Grade	Difference	Usage
FB0010	Agar A	Bacteriological	This is the most popular agar for use in dehydrated culture media. It is highly processed to remove any impurities that can inhibit microorganisms.	All three of these agars are used in culture media but are used in different formulas with the Bacteriological Agar used primarily in very selective media where total growth potential is expected. The other two agars are used in less sensitive media formulas.
FB0012	Agar B	Pharmaceutical	This agar is slightly less expensive agar made from a slightly different manufacturing process than the Bacteriological Agar.	
G1253	Agar C	Technical	This agar is the least expensive grade agar and is manufactured with a slightly different manufacturing process.	
G243	Agar D (Purified)	Biotech	This is the most expensive agar that has received the most meticulous manufacturing processing to remove impurities.	It is use in sensitive immunodiffusion/immunoprecipitation studies or cell culture cloning applications – it is not used in typical culture media formulas.

