

# SeaPure® Agarose



## A pure, neutral gelling polymer from the sea

### Key product attributes

- Compatible with highly anionic, cationic materials and acids
- Natural, colorless and odorless
- Can be used in high and low pH applications
- Provides cool, clean skin feel
- Unique, highly purified, neutral gelling polymer derived from red seaweed (Rhodophyta)

### Use level

**1–5%**

### Chemical structure of Agarose

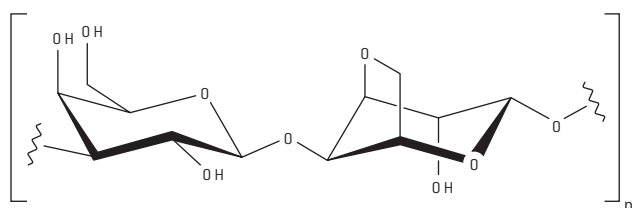


Figure 1: Agarobiose – basic repeating unit of agarose.

### Product information

#### Neutral and compatible

- Neutral polysaccharide with a low percentage of residual charged groups (sulfates, pyruvates, methoxyls)\*
- Compatible with nearly any ingredient, particularly highly anionic or cationic materials, even at high concentration
- No salts, counterions, pH changes, other polymers or initiators required for gelation. Functions in low pH applications
- Easy incorporation and release of sensitive materials

#### Strong, versatile gelling properties

- Provides strong gelling characteristics at very low concentrations: gel strength  $\geq 1,200 \text{ g/cm}^2$  at 1%
- Broad viscosity profile at low use level
- Forms thermoreversible gels: gelation at 34°C to 37°C, and remelts at >90°C
- Reduces the need for additional ingredients to achieve desired rheology and skin feel

\* SeaPure® Agarose may be derivatized to enhance various properties for specific uses.

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## Features and benefits

### Clear and odorless

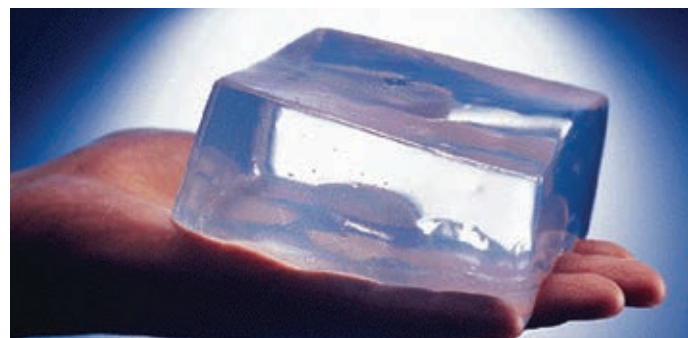
- Naturally clear and odorless material provides a clean, clear stabilizer, and is well suited to color or scent additives

### Excellent tactile characteristics

- Non-greasy thickener, with good rub-out and minimal residue
- Smooth, clean skin feel
- Soft, elastic gels
- Versatile texturizing properties

## Preparation

1. Disperse agarose in room temperature water using constant agitation.
2. Heat to 85°C with agitation and hold until all particles are dissolved; about 15 minutes.
3. Cool to 55°C and replace any water loss using agitation.
4. Incorporate other ingredients using agitation above 40°C.
5. If preparing formed gels, pour in to molds (hot) at desired thickness and allow to gel at room temperature.
6. If using agarose to thicken, continue agitation as solution cools to prevent gel formation during the cooling phase.
7. Adjust mixing shear to achieve desired texture in the finished solution. Gelation is complete when temperature reaches 20°C to 25°C.
8. Pour thickened liquid in to desired containers.



## Ordering information

### INCI Name: Agarose

Cat. no.	Product description
232782	SeaPure® Agarose 1kg bottle
50266	SeaPure® Agarose 2+kg drums

Compatibility of Agarose	
Acids: Citric, lactic, glycolic	Yes
Alcohol: Ethanol	Yes
Alkali: Triethanolamine, Sodium hydroxide: Triethanolamine, Sodium hydroxide	Yes
Surfactants	Yes

### North America

Customer Service: +1 800 638 8174 (toll free)  
Fax: +1 301 845 8338  
order.us@lonza.com  
Scientific Support: +1 800 521 0390 (toll free)  
scientific.support@lonza.com

### Europe

Customer Service: +32 87 321 611  
order.europe@lonza.com  
Scientific Support: +32 87 321 611  
scientific.support.eu@lonza.com

Lonza Walkersville, Inc. – Walkersville, MD 21793  
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