

BioPolymer GA2003

GA2003 is a high molecular weight exopolysaccharide produced by the *Sphingomonas* species, characterized by its unique molecular structure that contributes to its remarkable viscosity and stability. Its chemical properties, including excellent temperature resistance and salt tolerance, make it a versatile biopolymer in various industries. The gum's rheological properties can be adjusted by varying its concentration, leading to changes from shear-thinning behavior to a more elastic and compact structure, which is beneficial in applications like biocomposite hydrogels. Advances in genetic engineering have enabled the development of robust *Sphingomonas* strains for efficient and stable production, further enhancing its commercial viability.

Specification

Appearance		Light yellow powder
Particle size, through 40 mesh, %		Min. 95
Moisture, %		Max. 13
pH, 1% solution		7.0 – 9.0
Viscosity, 600rpm		Min. 60
0.66% DI	300rpm	Min. 45
Water,	200rpm	Min. 38
FANN35/F1.0,	100rpm	Min. 33
25C°	6rpm	Min. 18
	3rpm	Min. 16

Particle Size Distribution

	D10	D50	D90
Micron (µm)	29.55	102.9	212.5

Molecular Weight

	Mn	Mw	Mp
Dalton	1357032	2591877	3037465

Packaging & Storage

Standard Packing Storage	50 lb bag, 40 bags per pallet 25 kg bag, 40 bags per pallet Each unit is labeled with product name and lot number. Store in a cool, dry area for optimal shelf life.
Handling	For safe handling of this product, please refer to the Safety Data Sheet (SDS).

Shelf Life

Shelf Life	2 years
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Usage & Application

Dosage Applications	0.1 to 1%
<ul style="list-style-type: none"> - Oilfield Applications: Acts as a thickening agent, enhancing the properties of cement in high-pressure and high-temperature wells. - Paper Industry: Contributes to stronger, smoother paper and more energy-efficient production processes. - Construction Industry: Improves the viscosity, workability, and strength of cement. - Biocompatible Hydrogels: Utilized in the development of hydrogels for applications such as drug delivery and tissue engineering. 	

Regulatory Information

CAS No.	72121-88-1 (alternatively recognized as 96949-22-3 in some cases).
HS Code	3913.90
Country of Origin	Made in China

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Disclaimer: The information provided in this document is based on tests that we believe to be reliable. However, the results of these tests may vary under different conditions and methodologies. It is the responsibility of the prospective user to determine the suitability of our products for their specific use. The user is responsible for ensuring that their use of our products, as well as their workplace practices, are in compliance with all applicable laws and regulations.

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