

ZHENGZHOU OPAL BIOTECH, LIMITED.

Focus on Gums and Hydrocolloids...

Tel.:+86 -371-55675271; Mob.:+86 -17335701862

Product Data Sheet for Culture Medium Gellan Gum

Commodity Name : Gellan Gum

Commodity Type : Low Acyl; De-Acyled Type

Related Type Code : LAT(B)

Synonym : Gelling Agent ; Gelrite ; Phytagel

CAS. NO. : 71010-52-1

E. NO. : E418

H.S. CODE : 391390 ; 350699

Applications : Agriculture; Plant Tissue Culture Media ; Cell Tissue Culture Media

Origin Country : China.

Product Description:

Gellan gum is a hydrocolloid produced by the microorganism Sphingmonas Paucimobilis, by fermentation from a carbohydrate source(glucose). Deacylation is carried out by treating the product with alkali. Low Acyl Gellan Gum is a perfect stabilizing agent and gelling agent for foods, beverages or personal care products which needs very high transparency and easy solubility. Appearance of Low Acyl Gellan Gum is white fine powder. The application of gellan gum needs to follow our instructions.

Low Acyl Gellan Gum

Gellan gum is based on a linear structure of repeating, glucose, rhamnose and glucuronic acid units. In high acyl Gellan gum two acyl side chains, acetate and glycerate are present. Both substituents are present on the same glucose molecule and on average there is one glycerate per repeating unit and one acetate every two repeating units. In low acyl Gellan gum the acyl groups are removed.

Specifications:

Items Standard

Appearance : Off White to White Floating powder.

Gellan Gum content : 85.0%—108.0%

Loss on drying : $\leq 15.0\%$ Lead : $\leq 2.0 \text{mg/kg}$ Particle size : $60 \text{ Mesh } \geq 95\%$ Transparency : $\geq 90\%$

Gel strength : $400-700g/cm^2$ Ash : ≤15.0%
PH(0.5% Solution) : 5.5-8.0
Bacterium Account : ≤10000CFU/g

 Coliforms
 :
 ≤30MPN/100g

 Yeast and mould
 :
 ≤400CFU/g

 Salmonella
 :
 0/25g

 Nitrogen
 :
 ≤3.0%

Web.: www.opalbiotech.com
OPAL BIOTECH.-TDS. Email: GELLANGUM@163.COM



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Features & Benefits:

1. Easy to dissolve in water; Very Clear Mediam Solutions or Gels formed (easier to observe growth);

- 2. Heat Stability; Heat Irreversible;
- 3. Excellent acid stability;
- 4.Quite low dosage(0.235%-0.5%) 2-5g per liter.

Application Instruction:

- 1. Make gellan gum dispersed in cool deionised water by stirring;
- 2. Heat solution 1. to 85 Celcius Degree for 10-15 mins; or boiling for 5-10 mins;
- 3. Add cations or salts into solution 2.;
- 4. Cool down the solution 3. to certain temperatures, gelling or suspending fuctions avaiable.

To disperse the product without lumps: Premix the powder with the other dry ingredients (except kations or salts), and pour the preparation into the liquid under efficient stirring. Continue stirring to obtain a complete dispersion.

The dissolution of the product depends on the medium and the process: it is improved by heat treatment (time, temperature), shear stress(stirrer, homogenizer). A complete dissolution can be rapidly obtained by boiling for 5-10mins or at around 85-90°C for10-15mins with sequestrants(Sequestrants such as sodium citrate may be required for hydration in hard water).

Regulatory Information:

Gellan Gum complies with requirements contained in the following regulations and standards: In China: GB25535-2010;In U.S.A.: FOOD CHEMICALS CODEX, 21 CFR § 172.665; In Canada: CANADIAN FOOD AND DRUG LAW (ITEM G.2,TABLE IV), In EU: THE PURITY CRITERIA IN THE CURRENT EC DIRECTIVE, 1829/2003/EC; Others:JECFA Standard.

Packaging, Storage and Shelf Life:

The product is packed in 25Kg/Drum or 25Kg/CTN Square Cartons with a PE bag inner.

Small Packages with 1Kgs N.W. foil bags also available.

Store away from heat and moisture, preferably at a cool and dry place.

The product, when stored in these conditions and in its original unopened packaging, will maintain its initial properties for 24months.

For further information please contact:

Mr. VICTOR TIANFEI LIANG (General Manager)

Zhengzhou OPAL Biotech. Limited.

Tel: +86-371-55675271; Mob.:+86-173-3570-1862

SKYPE: OPALBIO@HOTMAIL.COM

Web.:www.opalbiotech.com Email: <u>GELLANGUM@163.COM</u>

THE END

Web.: www.opalbiotech.com Email: GELLANGUM@163.COM