

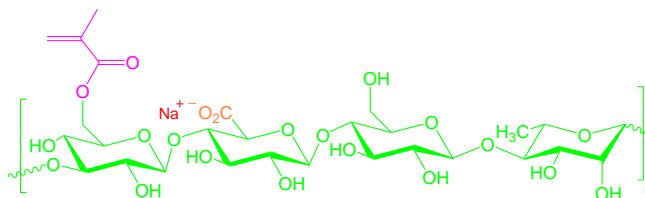
# Product Information

## Methacrylated Gellan Gum

**Product Number: 503310**

### Synonyms

Sodium Gellan Gum Methacrylate



### Specifications

CAS Number: -

M.F. (Repeat Unit):  $C_{14}O_{12}H_{21}Na$  ( $\times nC_4OH_5$ )

M.W. (Repeat Unit): 404.30 ( $\times n69.08$ ) g.mol<sup>-1</sup>

Molecular Weight: 1,000 kg/mol

Appearance (Form): Powder

Appearance (Color): White to Light Yellow

Store: - 4 °C

Infrared Spectrum: Conforms to Structure

Purity (Titration):  $\geq 98\%$

Degree of Substitution: 0 – 6%

pH: 6 – 7 (c = 10 mg.mL<sup>-1</sup>; Water)

Solubility (water): up to c = 30 mg.mL<sup>-1</sup>

Solubility (Color): Clear to Yellow

### Description

Gellan Gum (GG) is a high molecular weight polysaccharide gum produced by a pure culture fermentation of a carbohydrate by *Pseudomonas elodea*. The GG is rapidly crosslinked after contact with an ionic solution, such as the CSF. Methacrylated Gellan Gum (GG-MA) is a photo-responsive material and forms chemical hydrogel in the presence of ultra-violet radiation and a proper photoinitiator for example, Irgacure 2959. GG-MA shows stiffer hydrogels with long-term biodegradation compared to ionically-crosslinked alginate hydrogels (e.g., Ca<sup>2+</sup>).

### Precautions

For laboratory and research use. Not for drug, household or other uses.

### Stability

Methacrylated Gellan Gum is stable for at least 3 months at -4 °C. Storage its stock powder at high temperature for more than 1 week may cause decomposition and yield incorrect results.

### Packaging

1 and 5 g in plastic bottle

### Applications

Methacrylated Gellan Gum can be used in tissue engineering, drug delivery and 3D printing. It can be employed in a wide variety of immobilization matrices.