

Chemical nature

Reagent for oil extraction Biomicrogel® BMG-C4 (hereinafter BMG-C4) are non-toxic water-soluble polymers based on natural raw material.

Physical Properties

Aggregate state	Fine-dispersed powder with inclusions of particles*
Color	Varies from beige to yellow-brown, it is allowed the inclusions of white color*
Bulk density	0.44 ÷ 0.70 g/cm ³
pH value (3% water solution)	1.25 ÷ 1.50

* - in case of a significant temperature drop during transportation and/or storage, BMG-C4 may stick together and darken, what does not affect the performance of the product.

Application areas

BMG-C4 is designed to increase the extraction of various vegetable oils during their production at the stages of settling and centrifugation.

Operating principle

An aqueous solution of BMG-C4 has the property to separate oil from solid particles. BMG-C4 is adsorbed on solid organic particles and forms thin polymer films on their surface that repulse oil droplets.

Advantages

- It reduced the oil loss in the production waste (water from the separator outlet) by 26% (from 0.84 to 0.62%).
- Increasing by 7% of oil extraction rate in gravity settling processes.
- Does not affect oil quality.
- 100% biodegradable.
- Non-toxic and non-flammable.
- Applicable in the food industry.

Application

- BMG-C4 is used as a 3% working solution.
- BMG-C4 is added into the DCO flow (diluted crude oil) before the settling or centrifugation stage (CST).
- BMG-C4 should be evenly distributed in the treated medium by stirring or using a turbulent flow of the medium.

The Biomicrogel Group is ready to provide recommendations on the necessary preparation and dosage of BMG-C4.

Preparation of the working solution

The working solution of BMG-C4 is prepared in a tank equipped with an overhead stirrer at a stirring speed of 100 rpm by dissolving an appropriate amount of dry BMG-C4 powder in tap water. The dissolution time varies from 10 to 30 minutes.

To prepare a working solution with 3 % concentration - take 30 kg of BMG-C4 dry powder, pour it into a mixing tank and add 970 litre of tap water. The recommended stirring time is 20-30 minutes, or until BMG-C4 is completely dissolved.

The information presented in this document is based on our knowledge and experience as of the current moment.

This information is not about the agreed contractual qualities of the products. Due to the fact that a large number of aspects may affect the processing and using our products, it does not exempt the user from the need to conduct his own experiments. The agreed contractual qualities are based solely on the information provided in the technical information sheet at the moment of passing the risk on to the consumer. Any descriptions, drawings, photographs, data, proportions, weights, etc. specified in this document can be changed without prior notice. The consumer is obliged to ensure compliance with all property rights and current legislation.

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Dosage

The optimal dosage of the BMG-C4 is from 0.3 to 1.0 g of BMG-C4 dry powder per 1 litre of non-oil sludge in DCO flow. BMG-C4 dosage is calculated based on the combined volume of water, non-oil-solid and emulsion, or volume of sludge minus oil volume.

It is recommended to add in the form of a 3% aqueous working solution. The volume of working solution BMG-C4 is from 10 to 33 ml per 1 litre of non-oil sludge in DCO flow

Packaging

BMG-C4 is supplied in the form of powder in bags of 25 kg.

Preparation of the working solution

The prepared solution should be used within 7 days.

Storage

BMG-C4 is stored in the manufacturer's package in ventilated warehouse premises protected from direct sunlight at a relative humidity of no more than 70% at a temperature not exceeding 37°C in conditions that exclude dust penetration and precipitation.

The guaranteed shelf life of the packaged product is 24 months as from the date of production.

Safe handling measures



WARNING

H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
P260	Do not breathe dust.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/ eye protection/face protection.

Safety and Technical Documentation Information

BMG-C4 is produce according to the approved technical conditions.

A Safety Data Sheet (SDS) is available on request.

Contacts

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