

Chemical nature

The Sorbent Biomicrogel® BMG-P1 series of products (hereinafter BMG-P1) are non-toxic water-soluble polymers.

Physical Properties

Aggregate state	Powder
Bulk density	0.62 g/cm ³
Color	Dark brown
pH value*	3.0 – 5.0
Viscosity, MPa*s**	40 – 50

* 1% aqueous solution,

** Dynamic Brookfield viscosity for 1% aqueous solution.

Operating principle

Microcapsulation of petroleum products by modified natural polysaccharides on the border of the interfacial area.

Application areas

- The sorbent is used to localize the spills of petroleum products, various fats and POL on the water surface
- The reagent is used to treat the coastal zone to prevent sticking of petroleum products, various fats, and POL in case of a spill on the shore

Advantages

- Non-toxic and eco-friendly
- 100% biodegradable
- High sorption capacity (1:50)
- Instantly localizes (encapsulates) collected petroleum products, various fats, and POL
- Encapsulated petroleum products, various fats and POL do not burn, do not spread (do not spill) and do not stick
- Encapsulated petroleum products, fats and POL are easily removed from the water column and its surface
- Operating temperature of the product varies from -7°C to 70°C.
- Operates within a broad PH range

Application

- BMG-P1 is used as a 1-2% aqueous working solution
- In order to use BMG-P1, the permissible hardness of water should be at least 4.2°GH
- It is necessary to evenly distribute the BMG-P1 solution on the water surface
- When spills are localized, the BMG-P1 solution should be applied to the surface by spraying under pressure
- When spills are localized under water (for example, in case of a pipeline rupture), the BMG-P1 solution should be applied to the epicenter of the spill source by spraying under pressure

Recommended solution concentrations

1-2%

The Biomicrogel Group is ready to provide recommendations on the the necessary preparation and dosage of BMG-P1.

Preparation of the working solution

- In order to prepare a 1% aqueous working solution, stir the solution at least 20-30 minutes until BMG-P1 is completely dissolved. The stirring rate should be 500-600 rpm
- In order to prepare a 2% aqueous working solution, stir the solution at least 45-60 minutes until BMG-P1 is completely dissolved. The stirring rate be 500-600 rpm

Dosage

It is recommended to take 20 kg of BMG-P1 per 1 ton of petroleum products. The reagent consumption is determined individually and on average is 1:50 (1 kg of dry product is required to collect 50 kg of petroleum products in contaminated water).

Packaging

BMG-P2 is supplied in the form of:

- free flowing powder in bags of 25 kg;
- a 1% or 2% working solution BMG-P101, BMG-P102 in JBC containers

Preparation of the working solution

The prepared working solution should be used within 14 days.

Storage

The product must be stored in a cool, dry place. All protective packaging should be retained. The guaranteed shelf life of the packaged product is 36 months as from the date of production.

Safety and Technical Documentation Information

State registration certificate №RU.66.01.40.008.E.000166.08.18 dated 23.07.2018

Material Safety Data Sheets (MSDS) RPB №20629059.20.53153 dated 03.09.2018. TU 20.59.59-007-20629059-2018 "Sorbent Biomicrogel[®]. Technical specifications".

Contacts

"SPC BioMicroGel", LLC Russia, 620010, №5, Konstruktorov, Yekaterinburg, Russia, office 431 E-mail: info@biomicrogel.com. Phone number: +7 (343) 251-99-90

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 Data 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.

Version: April 2021

This data sheet will be considered invalid if it is replaced with a later version.

[®] means a registered trademark of Biomicrogel[®].