

	<b>SAFETY DATA SHEET</b>	Date of issue: 12/12/2022
	<b>Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO</b>	Date of revision: -
		Version: 1.0

According to Regulation (EC) No. 1907/2006.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier:** Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO.

**1.2. Relevant identified uses of the substance or mixture and uses advised against:**  
Reagent is designed to increase the extraction of palm oil from the sludge during settling.  
For industrial use.

**1.3. Details of the supplier of the safety data sheet:**

Information about the distributor/importer: «**SPC BioMicroGel» Limited Liability Company**.  
Postal address: office 431, 5 Konstruktorov Str., Ekaterinburg, Sverdlovsk region, 620072.  
e-mail: [sales@biomicrogel.com](mailto:sales@biomicrogel.com)

**1.4. Emergency telephone number:** Tel. No.: +7 (343) 251-99-90.  
Only available during office hours. (09:00-18:00).

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture.**

Classification of raw materials according to Regulation (EC) No 1272/2008.

Sodium carboxymethyl cellulose: Acute toxicity - Oral, Category 4; Dermal, Category 4.

**2.2. Label elements.**

Labelling according to Regulation (EC) No 1272/2008.

Pictogram:



Signal word: Warning

Hazard statements: H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.



Safe handling measures:

P260 Do not breathe dust.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**2.3. Other hazards.**

The product has no other known specific hazards for human or environment. Results of PBT and vPvB assessment: The product does not meet the criteria for PBT or vPvB substances.


## SECTION 3: Composition/information on ingredients

**3.1. Substances.**

Not applicable.

**3.2. Mixtures.**

Description: Water-soluble biopolymer from modified plant raw materials. Brand range is distinguished by the relative content of components.

Description	CAS number	EC number	Conc. (%)	Classification according to Regulation 1272/2008/EC (CLP)		
				Hazard pictogram	Hazard category	H phrase
<b>Sodium carboxymethyl cellulose</b>	9004-32-4	618-378-6	proprietary*		4	H302 H312 H332

According to the current regulations, components can be omitted.

\* The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

For the full text of H phrases: see section 16.

	<b>SAFETY DATA SHEET</b>	Date of issue: 12/12/2022
	<b>Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO</b>	Date of revision: -
		Version: 1.0

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures.

**Additional advice:** First aider: Pay attention to self-protection. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get immediate medical advice/attention.

**Skin contact:** Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. Get immediate medical advice/attention.

**Eyes contact:** Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

##### 4.2. Most important symptoms and effects, both acute and delayed.

**Inhalation:** The following symptoms may occur: Inhalation of dust may cause irritation of the respiratory system.

**Ingestion:** The following symptoms may occur: May cause irritation to the digestive tract.

**Skin contact:** The following symptoms may occur: Contact with dust may cause mechanical irritation or drying of the skin.

**Eyes contact:** The following symptoms may occur: Dust may cause painful eye irritation and tearing.

##### 4.3. Indication of any immediate medical attention and special treatment needed.

No special treatment needed; treat symptomatically.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media.

Suitable extinguishing media: Carbon dioxide (CO<sub>2</sub>), powder, alcohol-resistant foam, water spray.

Unsuitable extinguishing media: Strong water jet.

##### 5.2. Special hazards arising from the substance or mixture.

Specific hazards: Not flammable. Risk of dust explosion.

Hazardous decomposition products in case of fire: Carbon oxides (CO, CO<sub>2</sub>).

##### 5.3. Advice for firefighters.

Firefighting instructions: Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent firefighting water from entering the environment. Avoid dust formation. Knock down/dilute dust cloud with water spray.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.

Other information: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel: Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe dust. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed. Use explosion-proof equipment. Use only non-sparking tools. For emergency responders: Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

##### 6.2. Environmental precautions.

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

	<b>SAFETY DATA SHEET</b>	Date of issue: 12/12/2022
	<b>Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO</b>	Date of revision: -
		Version: 1.0

### 6.3. Methods and material for containment and cleaning up.

Stop leak if safe to do so. Dam up the solid spill. Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Large spills: scoop solid spill into closing containers. This material and its container must be disposed of in a safe way, and as per local legislation. Avoid dust formation. Knock down/dilute dust cloud with water spray.

### 6.4. Reference to other sections.

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling.

Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe dust. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials.

Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment. Avoid dust formation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools.

Hygiene measures: Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities.

Storage conditions: Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10.

Incompatible substances or mixtures: Nitric acid. Strong oxidizing agents.

Packaging materials: Keep only in the original container.

### 7.3. Specific end use(s).

No specific instructions available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters.

Additional information: Personal air monitoring: Room air monitoring. Recommended monitoring procedures

### 8.2. Exposure controls.

Engineering measure(s): Provide adequate ventilation. Organisational measures to prevent /limit releases, dispersion and exposure. Safe handling: see section 7. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Provide eye shower and label its location conspicuously. Handle substance within a closed system. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Apply measures to prevent dust explosions. Ensure equipment is adequately earthed.

Personal protective equipment: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection: Wear chemically resistant gloves (tested to EN374). Suitable material: Viton® (>0.3mm, BTT: 8h). The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Eye protection: Use suitable eye protection. (EN166): Safety glasses with side shields.

Body protection: Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Use chemically protective clothing. Chemical resistant safety shoes.

Respiratory protection: Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Effective dust mask (EN 149). Half-face mask (EN 140). full face mask (DIN EN 136). Filter type: P (EN 143).

	<b>SAFETY DATA SHEET</b>	Date of issue: 12/12/2022
	<b>Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO</b>	Date of revision: -
		Version: 1.0

Thermal hazard protection: Not required for normal conditions of use. Use dedicated equipment.  
 Environmental exposure controls: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties:

Parameter	Value / Test method / Remarks
1. Appearance:	Fine-dispersed powder
2. Colour:	From beige to yellow-brown
3. Odour:	There is a characteristic odour
4. pH:	5.5 ÷ 6.5 pH for 1% aqueous solution
5. Relative evaporation rate (butylacetate=1):	No data available
6. Melting / freezing point:	No data available
7. Freezing point:	No data available
8. Initial boiling point and boiling range:	No data available
9. Flash point:	No data available
10. Auto-ignition temperature:	No data available
11. Decomposition temperature:	No data available
12. Flammability (solid, gas)	No data available
13. Bulk density:	0.60 ÷ 0.70 g/cm <sup>3</sup>
14. Solubility:	Water: 100%
15. Partition coefficient: n-octanol/water:	No data available
16. Auto-ignition temperature:	No data available
17. Decomposition temperature:	No data available
18. Explosive properties:	No data available. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule. Risk of dust explosion ( $K_{st} < 200 \text{ bar.m/s}$ )
19. Oxidizing properties:	No data available. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

**9.2. Other information:** No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity.

Reference to other sections: 10.4 & 10.5.

### 10.2. Chemical stability.

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions.

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid.

Avoid dust formation. Risk of dust explosion. Safe handling: see section 7.

### 10.5. Incompatible materials.

Nitric acid. Oxidising agents. Safe handling: see section 7.

### 10.6. Hazardous decomposition products.

Reference to other sections: 5.2.

	<b>SAFETY DATA SHEET</b>	Date of issue: 12/12/2022
	<b>Reagent for sludge palm oil extraction Biomicrogel® BMG-SPO</b>	Date of revision: -
		Version: 1.0

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects.

#### Acute toxicity:

Information about the product: Acute toxicity: LD50 (oral, rat): >5000 mg/kg.

**Skin corrosion/irritation:** Not classified.

**Serious eye damage/irritation:** Not classified.

**Respiratory or skin sensitisation:** Not classified (Based on available data, the classification criteria are not met.).

**Germ cell mutagenicity:** Not classified (Based on available data, the classification criteria are not met.).

**Carcinogenicity:** Not classified (Based on available data, the classification criteria are not met.).

**Reproductive toxicity:** Not classified (Based on available data, the classification criteria are not met.).

**STOT-single exposure:** Not classified (Based on available data, the classification criteria are not met.).

**STOT-repeated exposure:** Not classified (Based on available data, the classification criteria are not met.).

**Aspiration hazard:** Not classified (Based on available data, the classification criteria are not met.).

**Other information:** Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

## SECTION 12: Ecological information

### 12.1. Toxicity.

According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as dangerous for the environment.

### 12.2. Persistence and degradability.

The product is readily biodegradable.

### 12.3. Bioaccumulation potential.

No data available.

### 12.4. Mobility in soil.

No data available.

### 12.5. Results of PBT and vPvB assessment.

No data available.

### 12.6. Other adverse effects.

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods.

Product/Packaging disposal recommendations: Avoid release to the environment. Dispose of empty containers and wastes safely. Safe handling: see section 7. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC): This material and its container must be disposed of as hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

## SECTION 14: Transport information

### ADR/RID; ADN; IMDG; IATA:


Not dangerous good in sense of the transport regulations.

**14.1. UN Number:** No UN Number.

**14.2. UN proper shipping name:** No proper shipping name.

**14.3. Transport hazard class(es):** No transport hazard classes.

**14.4. Packing group:** No packing group.

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**14.5. Environmental hazards:** No relevant information available.

**14.6. Special precautions for user:** No relevant information available.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable.

### SECTION 15: Regulatory information

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Contains no REACH substances with Annex XVII restrictions.

Contains no substance on the REACH candidate list.

Contains no REACH Annex XIV substances.

**15.2. Chemical safety assessment:** Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830.

Classification according to Regulation (EC) No. 1272/2008 [CLP].

Labelling according to Regulation (EC) No. 1272/2008 [CLP].

#### **Relevant H-Phrases (number and full text) of Section 2 and 3:**

H302 – Harmful if swallowed (oral).

H312 – Harmful in contact with skin (dermal).

H332 – Harmful if inhaled.

**Training advice:** Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

#### **Abbreviations and acronyms:**

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

CMR effects: Carcinogenic, mutagenic, reprotoxic effects.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived-No-Effect-Level.

ECHA: European Chemical Agency.

EC: European Community.

EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).

EEC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European Norm.

EU: European Union.

EWC: European Waste Catalogue (replaced by LoW – see below).

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA: International Air Transport Association.

ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

IMSBC: International Maritime Solid Bulk Cargoes.

IUCLID: International Uniform Chemical Information Database.

IUPAC: International Union of Pure and Applied Chemistry.

Kow: n-Octanol - Water Partition Coefficient.

LC50: Lethal concentration resulting in 50% mortality.

LD50: Lethal dose resulting in 50 % mortality (median lethal dose).

LoW: List of Waste.

LOEC: Lowest Observed Effect Concentration.

LOEL: Lowest Observed Effect Level.

NOEC: No Observed Effect Concentration.

NOEL: No Observed Effect Level.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No Observed Adverse Effect Level.

OECD: Organization for Economic Cooperation and Development.

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic.

PNEC: Predicted No Effect Concentration.

QSAR: Quantitative Structure Activity Relationship.

REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

SCBA: Self Contained Breathing Apparatus.

SDS: Safety Data Sheet.

STOT: Specific Target Organ Toxicity.

SVHC: Substances of Very High Concern.

UN: United Nations.

UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.

VOC: Volatile Organic Compound.

vpVb: very Persistent and very Bioaccumulative.

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