
Industrial wastewater
treatment by oil
and petroleum removal
BIOMICROGEL®
Sk
Участник

OVERVIEW

HOW BIOMICROGELS WORK:

Biomicrogels catch any synthetic, semi-synthetic oils, and petroleum products in water effectively, based on sweep- coagulation process.

After separation of oil-water mixture both treated water and removed petroleum products can be returned to the process cycle and re-used. Our flocculants are well compatible with almost all flocculants based on inorganic salts of polyvalent metals cleaning water from suspended particles.

Sustainable

100% biodegradable, made of recycled waste, decreases GHG emissions

Proved efficiency

Proven effectiveness in field trials (table on the right)

Cost-effectiveness

Halving metalworking fluids disposal costs

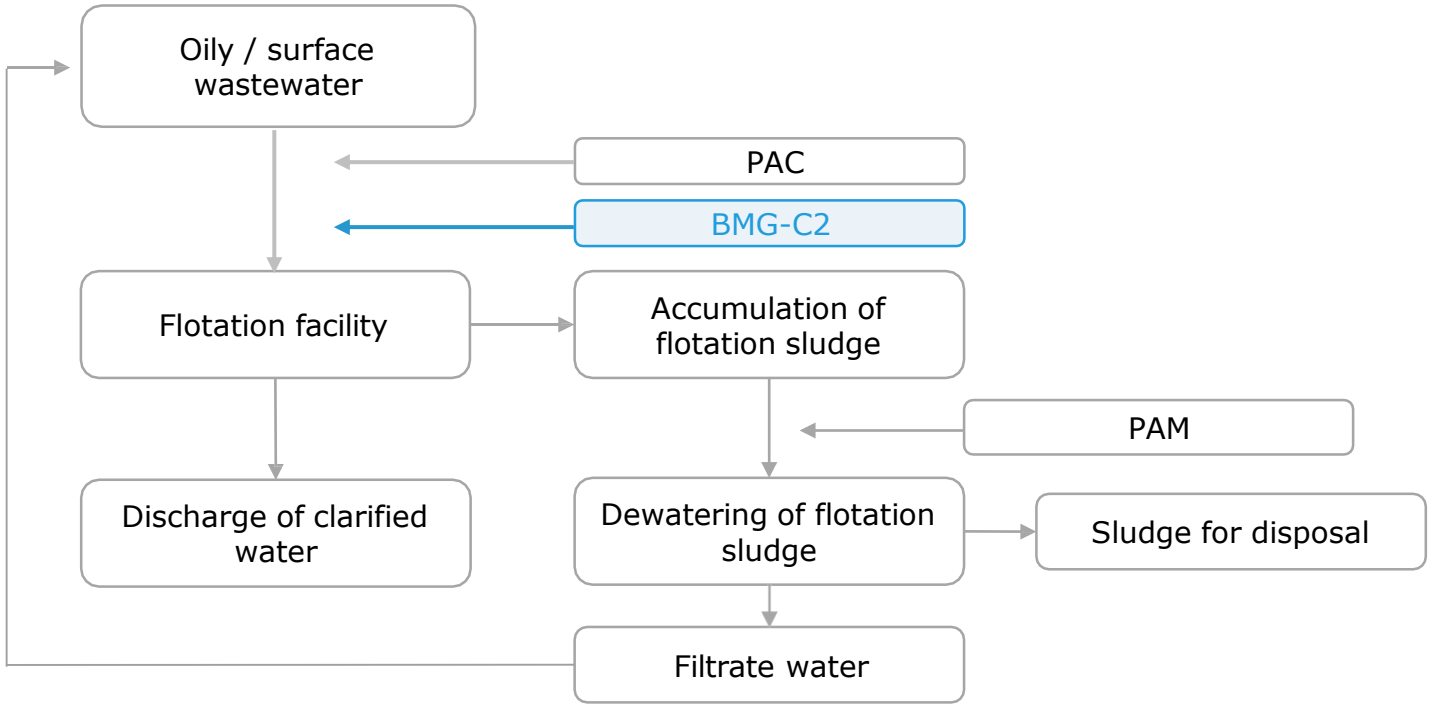
TABLE OF COMPARATIVE INDICATORS FOR INDUSTRIAL WASTEWATER (BEFORE AND AFTER)

Indicator	Initial values	After implementation of solutions
Petroleum products	50-500 mg/l	0.05-1 mg/l
pH	7.0-9.0	7.5-8.5

SOLUTION 1

IN INDUSTRIAL WASTEWATER TREATMENT /flotation

SCHEME OF INDUSTRIAL WASTEWATER TREATMENT THROUGH FLOTATION FACILITY*



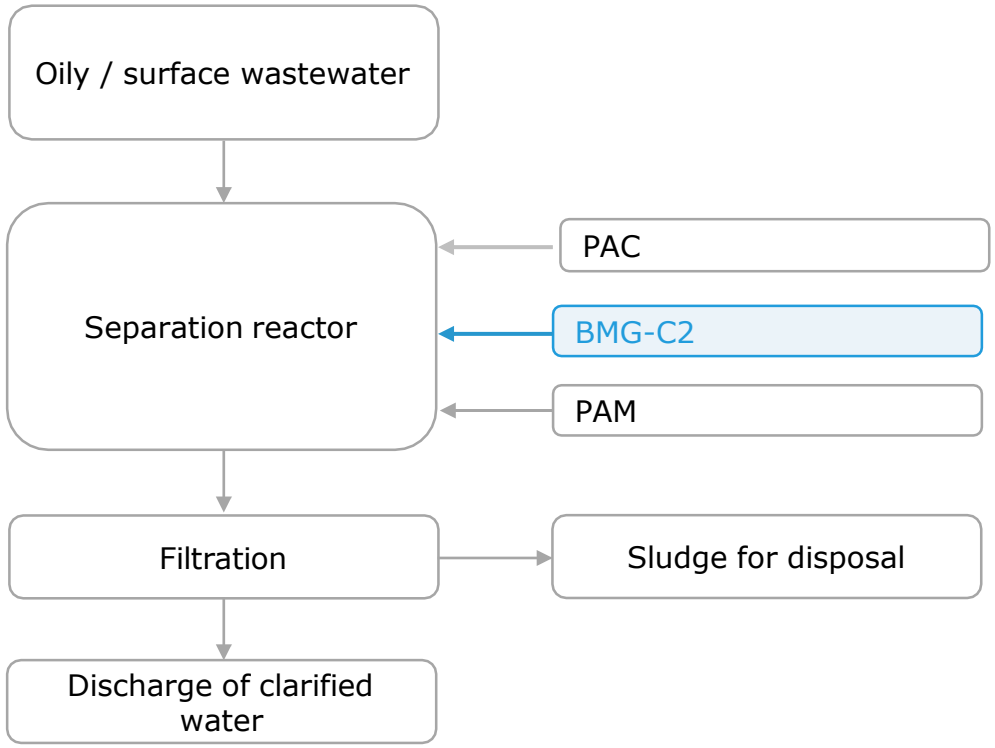
PRODUCTS USED IN THIS SOLUTION:

- Flocculant Biomicrogel® BMG-C2
- Activator – A1 Poly Aluminium Chloride (PAC)
- PolyAcrylAmide (PAM) for dewatering

SOLUTION 2

IN INDUSTRIAL WASTEWATER TREATMENT / separation reactor

SCHEME OF INDUSTRIAL WASTEWATER TREATMENT THROUGH SETTLING TECHNOLOGY*



PRODUCTS USED IN THIS SOLUTION:

- Flocculant Biomicrogel® BMG-C2
- Activator – A1 (PAC)
- Flocculant for dewatering (PAM)

TECHNICAL AND ENGINEERING SUPPORT AT ALL STAGES

- Chemical laboratories, production of reagents, and a professional team to support customers comprehensively
- Offices in Oxford and Poland allow to develop activities in the EU

1 Experimental section

2 Audit of production

3 Process scheme development and equipment selection

4 Technical and economic assessment

5 Supervised installation and commissioning works

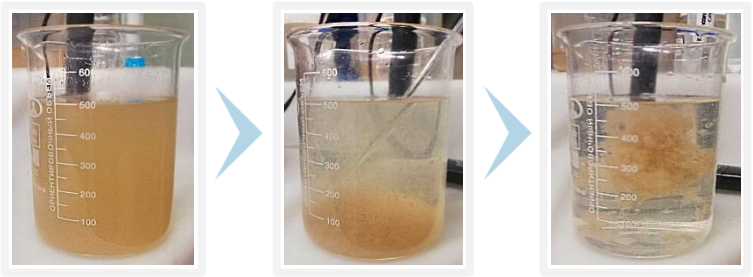
6 Pilot testing

CASE STUDIES: INDUSTRIAL WASTEWATER TREATMENT

PJSC "Lukoil", 2021
(major oil company)

Flocculant Biomicrogel® BMG-C2

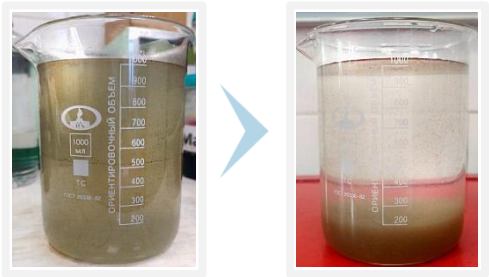
Parameter name	BEFORE	AFTER
pH, units	**9.10**	**7.10**
Oil products, ppm	**51.00**	**0.53**



PJSC "RZHD", 2020
(major railway company)

Coagulant Biomicrogel® BMG-P2

Parameter name	BEFORE	AFTER
pH, units	**6.5**	**6.5**
Oil products, ppm	**61**	**0.15**



JSC "Rusagro", 2021
(major agricultural company)

Coagulant Biomicrogel® BMG-P2

Parameter name	BEFORE	AFTER
pH, units	**6.30**	**5.80**
Oil products, ppm	**0.71**	**0.04**
Fats, ppm	**320.00**	**17.00**

ABOUT COMPANY

- 2 manufacturing sites, 18,000 tonnes per year manufacturing capacity
- 4 chemical laboratories and 2 experimental sites
- 134 intellectual property items registered in 62 countries
- World-class R&D capability, 4 PhD-degree specialists, and 17 engineers
- Offices in Russia, the UK, Poland, SEA

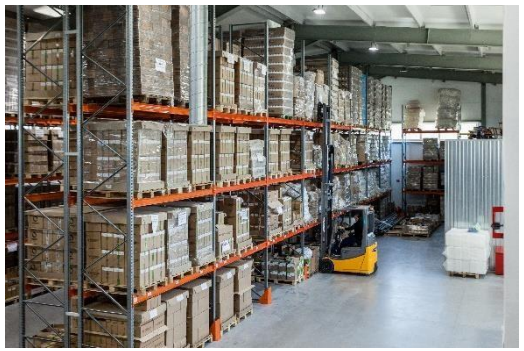
isle APPROVED

Biomicrogel® products are independently verified by Isle Utilities[1] for the technology performance and product characteristics claims

Awards

European Commission
Horizon 2020
European Union funding
for Research & Innovation

G20 ITALIA 2021 · SLUSH · PORTXL World's 1st Port & Maritime Accelerator · CLEAN TECH OPEN · MASSCHALLENGE · FALLING WALLS · SOUTH SUMMIT INNOVATION IS NOW! · STARTUP HUB POLAND


[1] *Isle Utilities is a London-based technology international consultant focused on independent technology and innovation due-diligence and consulting (www.isleutilities.com)*

ALL BMG PRODUCTS

- Coagulant Biomicrogel® BMG-P2
- Flocculant Biomicrogel® BMG-C2
- Soil and sand cleaning agent Biomicrogel® BMG-C3
- Biomicrogel® BMG-C4 product for Increasing the vegetable oils extraction
- Solid surface cleaning agent Biomicrogel® BMG-C6
- Spilltex® dip net for petroleum products collection from water surface
- Spilltex® filter cloth for laying sumps
- Spilltex® filter barrier cloth for shallow rivers
- Spilltex® universal filter cloth
- Preparation and Dosing station

ALL BMG SOLUTIONS

- Industrial and storm drains cleanup from oils, fats and petroleumproducts
- Coolant processing in metallurgy and pipe rolling
- Coolant processing in mechanical engineering
- Performance gains in vegetable oil extraction
- Oil and petroleum product spill cleanup
- Clean up of solid surfaces from oils and petroleum products
- Soil washing from petroleum products
- Purification of bottom and produced water

Continue to web-site

CONTACT DETAILS

Alexander Khomik

BD Director

a.khomik@biomicrogel.com

+7 916 154 48 35

Vladislav Perunov, CFA, FCCA

IR Director

vp@biomicrogel.com

+44 (0) 7 40 28 999 77

Biomicrogels Group

info@biomicrogel.com

+ 44 1865 60 0460

BIOMICROGEL®

THANK YOU FOR YOUR ATTENTION!