

MGULAB Limited Liability Company

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Approved by

General Director of MGULAB, LLC

/Seal:/ MGULAB Testing center * TEST REPORT /Signed/ A.V. Astashev

Conclusion No. 61060-1 dated 03.07.2023

Documents containing test results

No.	Document
1	Test Report No. 61060-1.2 dated 03.07.2023 by MGULAB Test Center (outside the scope of accreditation)

Customer information

Type	Limited Liability Company
Name	OstankinoN+ Vladimir Dugar
TIN	7734357776
Postal address	---
Phone number	+79262660226
E-mail	info@biovermix.com / dwa986@yandex.ru

Sample information

Name	Complex organic fertilizer "Biostimax"
Test item	Other
Type of test item	---
Person responsible for sampling	Sample provided by the Customer
Accompanying document	Sampling Certificate No. 61060-1 dated 06.06.2023
Sampling location	Ivanovo Region
Sampling date	06.06.2023
Acceptance date	06.06.2023
Testing period	06.06.2023 — 03.07.2023

Conclusion on compliance of test results with established requirements,

No.	Regulatory Document	Conclusion
1	SanPiN 1.2.3685-21 (soil of populated areas and agricultural	Based on the tested parameters, the sample meets the safety requirements for soils of different land use types specified in the regulatory document and can be used for its intended

No.	Regulatory Document	Conclusion
	land)	purpose without restrictions.
2	Letter from the Ministry of Natural Resources of the Russian Federation No. 04-25/6V5678	Based on the tested parameters, the sample meets the safety requirements for soils of different land use types specified in the regulatory document and can be used for its intended purpose without restrictions.
3	Ministry of Emergency Situations of Russia for Moscow "Reference Levels for Ensuring Radioecological Safety of the Population of Moscow" (EMERCOM RL)	Based on the tested parameters, the sample meets the radiation safety requirements for soils of different land use types specified in the regulatory document and can be used for its intended purpose without restrictions.

Your opinion is very important to us. Please evaluate our Test Report and Conclusion by answering a few questions. The survey form is available:

- by QR code;
- – by reference: msulab.ru/rating.



Comparison of test results with established requirements

Item No.	Parameter, UoM	Test result	SanPiN 1.2.3685	Letter No. 04-25/61-5678	EMERC OM RL
1	Hydrogen index (pH), pH unit	6.9 ± 0.3	—	—	—
2	Free humic acid output, %	33.8 ± 2.8	—	—	—
3	Potassium mass fraction (gross content), mg/kg	3200 ± 1300	—	—	—
4	Phosphorus mass fraction (gross content), mg/kg	510 ± 150	—	—	—
5	Mass fraction of total nitrogen on a dry basis, %	1.1 ± 0.2	—	—	—
6	Fulvic acids, %	48.3 ± 4.8	—	—	—

Legend

X-Y	The test result is within the range of permissible values established by the regulatory document.
X-Y	The test result cannot be unambiguously correlated with the range of permissible values established by the regulatory document.
X-Y	The test result is outside the range of permissible values established by the regulatory document.

- More information about the parameters is available:
- in the PDF version of the document by references in the parameter names;
 - by QR code;
 - by reference: msulab.ru/kb.



Reference information

Availability of soils with mobile compounds of potassium / K_2O and phosphorus / P_2O_3 (Yagodin, 1987)

Parameter, UoM	Soil class, availability:					
	I	II	III	IV	V	VI
	Very low	Low	Medium	Elevated	High	Very high
Potassium compounds / K_2O (mobile form), ppm	<40	40-80	80-120	120-170	170-250	>250
Phosphorus compounds / P_2O_3 (mobile form), ppm	<25	25-50	50-100	100-150	150-250	>250

Soil acidity classification (Yagodin, 1987)

Parameter, UoM	Soil class:					
	Very strongly acidic	Strongly acidic	Medium acidic	Slightly acidic	Close to neutral	Neutral
Salt extract pH, pH units	<4.0	4.1-4.5	4.6-5.0	5.1-5.5	5.6-6.0	>6.0

Availability of ammonium and nitrate nitrogen in soils, ppm (Mineev, 1989)

Parameter, UoM	Salt extract pH, pH units	Soil availability:					
		Very low	Low	Medium	Elevated	High	Very high
Ammonium and nitrate nitrogen (total), ppm	<5	<40	40-50	50-70	70-100	100-140	>140
	5-6	<30	30-40	40-60	60-80	80-120	>120
	>6	<30	30-40	40-50	50-70	70-100	>100

Humus content in humus horizons (Orlov, 1985)

Parameter, UoM	Soil availability:				
	Very low	Low	Medium	High	Very high
Humus, %	<2	2-4	4-6	6-10	>10

Provision of soils with mobile forms of microelements (Rinkis, 1963)

Parameter, UoM	Soil type, availability:					
	Mineral soil			Organogenic soil		
	Low	Medium	High	Low	Medium	High
Boron, ppm	<0.2	0.2-0.6	>0.6	<0.4	0.4-1.0	>1.0
Cobalt, ppm	<0.1	1.0-3.0	>3.0	<2.0	2.0-6.0	>6.0
Copper, ppm	<0.2	2.0-3.5	>3.5	<5.0	5.0-7.0	>7.0
Manganese, ppm	<20	20-50	>50	<40	40-100	>100
Molybdenum, ppm	<0.1	0.1-0.3	>0.3	<0.2	0.2-0.5	>0.5
Zinc, ppm	<1.0	1.0-3.0	>3.0	<2.0	2.0-6.0	>6.0

Expert, Ph.D, Biology

/Gjlgbcfyj/

M.M. Karpukhin

End of Conclusion.