

Client data

Project Bulgaria Agro Group Ltd

UL. Yantra 18A
5090 Zlataritsa, (BULGARIA)
Contact: Hristo Kozuharov

Laboratory data

Sampling: Client
Collection: Client - (SEUR)
Entrance: 14/06/2023 - 12:10 Start: 30/06/2023 End: 07/07/2023

Ref.: BIOHUMAX

Description:

Sample type: liquid organic fertiliser (group 2)

Description: Liquid product (approx. 500 ml in plastic container)

Condition:

Obs.:

FERTILISER PRODUCT ANALYSIS (physic-chemical)

PARAMETER		Result		Test method		
Humidity		98,4	%(w/w)	PTA-FQ-024, desiccation at 105°C		
Dry matter		1,58	%(w/w)	PTA-FQ-024, desiccation at 105°C		
Electrical conductivity 25°C extract 1/5 (v/v)		2,25	mS/cm	PTA-FQ-005, conductimeter, based on UNE-EN 13038		
pH in extract 1/25 (w/v)		8,13	Unit pH	PTA-FQ-004, pH-meter, based on UNE-EN 13037		
Nutrients		o.n.s.	o.d.s.			
Ash		0,939	%(w/w)	59,3	%(w/w)	PTA-FQ-022, calcination 540°C, based on UNE-EN 13039
Total organic matter		0,645	%(w/w)	40,7	%(w/w)	PTA-FQ-022, calcination, based on UNE-EN 13039
Total organic carbon	C	0,361	%(w/w)	22,8	%(w/w)	PTA-FQ-022, mathematical calculation
* Total carbon	C	0,765	%(w/w)	48,3	%(w/w)	PTA-FQ-036, elemental analyzer.
* Inorganic carbon	C	< 0,100	%(w/w)	< 6,31	%(w/w)	PTA-FQ-036, elemental analyzer.
* Total organic carbon	C	0,715	%(w/w)	45,1	%(w/w)	PTA-FQ-036, mathematical calculation
Total nitrogen	N	0,400	%(w/w)	25,3	%(w/w)	PTA-FQ-036, Dumas, based on UNE-EN 13654-2
Ammonium nitrogen	N	< 0,0100	%(w/w)	< 0,63	%(w/w)	PTA-FQ-053, ion chromatography, based on UNE-EN 14911
Nitric nitrogen	N	0,0406	%(w/w)	2,56	%(w/w)	PTA-FQ-006, ionic chromatography, based on UNE-EN 10304-1
Ureic nitrogen	N	< 0,100	%(w/w)	< 6,3	%(w/w)	PTA-FQ-041, HPLC-UV, based on UNE-EN ISO 19746
Organic nitrogen	N	0,359	%(w/w)	22,7	%(w/w)	PTA-FQ-020, Mathematical calculation, based on R.D. 1110/1991 annex Num. 12
Total phosphorus	P2O5	< 0,0114	%(w/w)	< 0,72	%(w/w)	PTA-FQ-029, Extraction based UNE-EN 15956, ICP-OES based on UNE-EN 16963
Total potassium	K2O	0,491	%(w/w)	30,98	%(w/w)	PTA-FQ-027, ICP-OES based on UNE-EN 16963
Heavy metal		o.n.s.	o.d.s.			
* Total cadmium	Cd	< 0,0050	mg/kg	< 0,316	mg/kg	PTA-FQ-027, ICP-OES, based on UNE-EN 16963
* Chromium VI	Cr(VI)	< 0,020	mg/kg	< 1,26	mg/kg	PTA-FQ-034, HPLC-UV, based on UNE-EN 16318:2015+A1:2016
* Total nickel	Ni	< 0,0200	mg/kg	< 1,26	mg/kg	PTA-FQ-027, ICP-OES, based on UNE-EN 16963

This certificate concerns only the tested sample. In case the laboratory is not responsible for sampling, the results obtained apply to the sample as received. The calculation of uncertainties is available to the customer. The laboratory is responsible for the information provided in this certificate except the information provided by the client and the opinions and/or interpretations issued for information purposes only. It is the responsibility of the customer the correct interpretation of the results. This certificate shall not be partially reproduced without the written approval of the laboratory.

Heavy metal			o.n.s.		o.d.s.		
*	Total lead	Pb	< 0,0200	mg/kg	< 1,26	mg/kg	PTA-FQ-027, ICP-OES, based on UNE-EN 16963
*	Total copper	Cu	0,67	mg/kg	42	mg/kg	PTA-FQ-027, ICP-OES based on UNE-EN 16963
	Total zinc	Zn	1,10	mg/kg	69	mg/kg	PTA-FQ-027, ICP-OES based on UNE-EN 16963
*	Total mercury	Hg	< 0,0150	mg/kg	< 0,95	mg/kg	PTA-FQ-027, ICP-OES, based on UNE-EN 16963
*	Inorganic arsenic	As	< 0,100	mg/kg	< 6,3	mg/kg	PTA-FQ-166, HPLC-ICP-MS, based on UNE-CEN/TS 17775

o.n.s.: on natural sample, o.d.s.: on dry sample.

(w/w): weight/weight, (w/v): weight/volume.

The analyzes in this report and intended to verify the conformity of fertilizer products in the European Union according to Regulation (EU) 2019/1009 and RD 506/2013 of June 28, have been performed in a reliable and reproducible manner, as they have been carried out in accordance with standards or parts of harmonized standards whose references have been published in the Official Journal of the European Union and in Annex VI of RD 506/2013 of June 28, following internal procedures indicated in the field "methodology". Some of these tests may follow equivalent or alternative methods backed by validation and intercomparison tests, if they do not follow or do not have a harmonized standard available.

DETAIL OF MODIFICATIONS

Revision	Release date	Modification	Reason	Source
02	14/07/2023	Result expression	Extension of the initial request	Client
04	23/08/2023	Result expression	Extension of the initial request	Client

Technical Manager of Dept. Physical-Chemical
Bernardo Marín Romero

Technical Director
Antonio Abellán Caravaca

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