



- CERTIFICATE OF ANALYSIS -

Product Name: Alkaline Black Humic Fulvic Liquid Concentrate	Product Number: HHK50A50201
Country of Origin: United States	Batch Number: 24100
Handling Instructions: See SDS attached	Date of Manufacture: 4/10/2024
Laboratory FDA Registration Number: 14353128308	Retest Date: 4/2029
Mineral Logic FDA Registration Number: 18395658198	Lab Report Numbers: 262112-01, 950484-1
Packaging: 1 oz., 2 oz. 20 L, 1,000 L	Test Completion Date(s): 4/23/2024, 4/24/2024

Physical Data:	Specification	Result	Per Unit	Method
pH	12-14	13.0	N/A	EPA 150.1
SG=Specific Gravity (G/CC)	1.000-1.200	1.05	G/CC	Modified USP <841>
Sample Type:	Liquid	Complies	N/A	Physical/Visual
Total Dissolved Solids:	2-10	6.04	%	AOAC 920.193
Water Activity:	0.85-0.95	0.90	Aw	AOAC 978.18
Humic Acid: (%)	2-5	2.3	%	V&B
Fulvic Acid: (%)	0.1-5	0.8	%	V&B

Minerals	Specification ppm	Result	Per Unit	Method
Calcium	250 - 5,000 ppm	336	ppm	ICP-OES USP <730>
Potassium	4,000 - 18,000	12,600	ppm	ICP-OES USP <730>
Iron	250 - 5,000	657	ppm	ICP-OES USP <730>
Magnesium	0-500	50	ppm	ICP-OES USP <730>
Sodium	1,000 - 8,000	2,020	ppm	ICP-OES USP <730>
Sulfur	500 - 5,000	1,250	ppm	ICP-OES USP <730>

Heavy Metals	Specification ppm	Result	Per Unit	Method
Arsenic	< 2	0.309	ppm	ICP-MS USP <730>
Cadmium	< 1	0.006	ppm	ICP-MS USP <730>
Lead	< 2	0.367	ppm	ICP-MS USP <730>
Mercury	<0.10	0.007	ppm	ICP-MS USP <730>

Microbiology:	Specification	Result	Per Unit	Method
Total Aerobic Microbial Count	< 10,000	< 10	CFU/g	USP <2021>
Coliform Count	< 10	< 3	MPN/g	FDA BAM
E. Coli Count	< 10	< 3	MPN/g	FDA BAM
Salmonella	Absent per 10 g	Absent	per 10 g	USP <2022>
Staphylococcus aureus	Absent per 10 g	Absent	per 10 g	USP <2022>
Yeast	< 100	<10	CFU/g	USP <2021>
Mold	< 100	< 10	CFU/g	USP <2021>

Quality Unit Release Date: 5/9/2024

Released by:

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