

CERTIFICATE OF ANALYSIS

Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

Bulk Formulation D9 2.5mg/mL

Batch ID or Lot Number: 9429	Test: Microbial Contaminants	Reported: 09Aug2024	USDA License: N/A
Matrix: Finished Product	Test ID: T000287591	Started: 06Aug2024	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 06Aug2024	Status: Active

Microbial

Contaminants

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	None Detected	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	

Final Approval


Nora Langer
09Aug2024
02:27:00 PM MDT

PREPARED BY / DATE


Brianne Maillot
09Aug2024
03:49:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/7925721e-efed-41e2-b1b3-afc2c4fd4af8>

Definitions

* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10² = 100 CFU, 10³ = 1,000 CFU, 10⁴ = 10,000 CFU, 10⁵ = 100,000 CFU
CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
STEC = Shiga Toxin-Producing E. coli

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Cert #4329.02



CDPHE Certified

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Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

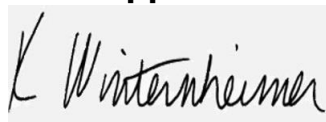
Bulk Formulation D9 2.5mg/mL

Batch ID or Lot Number: 9429	Test: Heavy Metals	Reported: 18Jul2024	USDA License: NA
Matrix: Finished Product	Test ID: T000286598	Started: 18Jul2024	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 17Jul2024	Status: NA

Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.75	ND	
Cadmium	0.04 - 4.50	ND	
Mercury	0.05 - 4.82	ND	
Lead	0.05 - 4.71	ND	

Final Approval

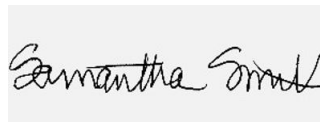


Karen Winternheimer

18Jul2024

10:40:00 AM MDT

PREPARED BY / DATE



Sam Smith

19Jul2024

07:51:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/3b87db0b-ed9e-4913-a713-286a2efd3483>

Definitions

ND = None Detected (defined by dynamic range of the method)

Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Cert #4329.02



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Prepared for:
NULEAF NATURALS

1550 LARIMER ST. #964
DENVER, CO USA 80202

Bulk Formulation D9 2.5mg/mL

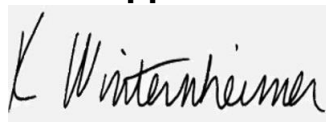
Batch ID or Lot Number: 9429	Test: Pesticides	Reported: 25Jul2024	USDA License: NA
Matrix: Concentrate	Test ID: T000286596	Started: 24Jul2024	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 17Jul2024	Status: NA

Pesticides

	Dynamic Range (ppb)	Result (ppb)
Abamectin	371 - 2793	ND
Acephate	41 - 2752	ND
Acetamiprid	43 - 2695	ND
Azoxystrobin	44 - 2693	ND
Bifenazate	42 - 2685	ND
Boscalid	42 - 2706	ND
Carbaryl	39 - 2725	ND
Carbofuran	41 - 2705	ND
Chlorantraniliprole	43 - 2705	ND
Chlorpyrifos	25 - 2786	ND
Clofentezine	272 - 2710	ND
Diazinon	262 - 2701	ND
Dichlorvos	279 - 2746	ND
Dimethoate	43 - 2697	ND
E-Fenpyroximate	259 - 2793	ND
Etofenprox	39 - 2756	ND
Etoxazole	259 - 2731	ND
Fenoxycarb	52 - 2698	ND
Fipronil	52 - 2760	ND
Flonicamid	52 - 2767	ND
Fludioxonil	289 - 2726	ND
Hexythiazox	40 - 2810	ND
Imazalil	245 - 2712	ND
Imidacloprid	41 - 2714	ND
Kresoxim-methyl	44 - 2746	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	275 - 2665	ND
Metalaxyl	44 - 2707	ND
Methiocarb	38 - 2721	ND
Methomyl	42 - 2753	ND
MGK 264 1	141 - 1597	ND
MGK 264 2	107 - 1094	ND
Myclobutanil	42 - 2695	ND
Naled	51 - 2687	ND
Oxamyl	44 - 2749	ND
Paclobutrazol	42 - 2710	ND
Permethrin	289 - 2669	ND
Phosmet	40 - 2576	ND
Prophos	286 - 2735	ND
Propoxur	40 - 2724	ND
Pyridaben	268 - 2833	ND
Spinosad A	32 - 2073	ND
Spinosad D	59 - 682	ND
Spiromesifen	221 - 2809	ND
Spirotetramat	274 - 2723	ND
Spiroxamine 1	15 - 1031	ND
Spiroxamine 2	24 - 1604	ND
Tebuconazole	282 - 2694	ND
Thiacloprid	42 - 2725	ND
Thiamethoxam	42 - 2739	ND
Trifloxystrobin	42 - 2711	ND

Final Approval



Karen Winternheimer
25Jul2024
10:15:00 AM MDT

PREPARED BY / DATE



Sam Smith
25Jul2024
10:18:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8ca2a426-80d8-4982-a71f-68d2f755d633>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range
ppb = Parts Per Billion

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Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

Bulk Formulation D9 2.5mg/mL

Batch ID or Lot Number: 9429	Test: Potency	Reported: 19Jul2024	USDA License: N/A
Matrix: Solution	Test ID: T000286595	Started: 17Jul2024	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 17Jul2024	Status: Active

Cannabinoids

	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.058	0.181	0.438	0.48	Density = 0.92g/mL
Cannabichromenic Acid (CBCA)	0.053	0.165	ND	ND	
Cannabidiol (CBD)	0.150	0.556	<LOQ	<LOQ	
Cannabidiolic Acid (CBDA)	0.154	0.570	ND	ND	
Cannabidivarin (CBDV)	0.036	0.131	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.064	0.238	ND	ND	
Cannabigerol (CBG)	0.033	0.103	0.437	0.48	
Cannabigerolic Acid (CBGA)	0.137	0.429	ND	ND	
Cannabinol (CBN)	0.043	0.134	0.465	0.51	
Cannabinolic Acid (CBNA)	0.094	0.292	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.163	0.511	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.148	0.464	2.358	2.56	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.131	0.411	ND	ND	
Tetrahydrocannabivarin (THCV)	0.030	0.093	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.116	0.362	ND	ND	
Total Cannabinoids			3.698	4.03	
Total Potential THC			2.358	2.56	
Total Potential CBD			0.000	0.00	

Final Approval



Sam Smith
19Jul2024
09:53:00 AM MDT

PREPARED BY / DATE



Karen Winternheimer
19Jul2024
09:58:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8f78a7a7-45b8-442c-9ea5-6eb7ad0a5611>

Definitions

% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).

Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDA *(0.877)).

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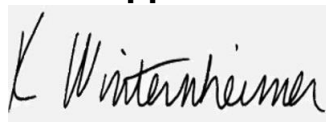
DENVER, CO USA 80202

Bulk Formulation D9 2.5mg/mL

Batch ID or Lot Number: 9429	Test: Residual Solvents	Reported: 22Jul2024	USDA License: N/A
Matrix: Concentrate	Test ID: T000286599	Started: 22Jul2024	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 17Jul2024	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	71 - 1416	ND	
Butanes (Isobutane, n-Butane)	150 - 3010	ND	
Methanol	59 - 1186	ND	
Pentane	79 - 1587	ND	
Ethanol	92 - 1840	ND	
Acetone	94 - 1880	ND	
Isopropyl Alcohol	102 - 2039	ND	
Hexane	6 - 113	ND	
Ethyl Acetate	97 - 1941	ND	
Benzene	0.2 - 3.9	ND	
Heptanes	90 - 1793	ND	
Toluene	18 - 352	ND	
Xylenes (m,p,o-Xylenes)	127 - 2550	ND	

Final Approval

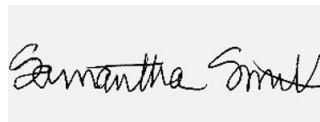


Karen Winternheimer

22Jul2024

12:43:00 PM MDT

PREPARED BY / DATE



Sam Smith

22Jul2024

12:45:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/24fc57f0-21ef-4acb-b275-cedf780fd349>

Definitions

ND = None Detected (defined by dynamic range of the method)

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CDPHE Certified

24fc57f021ef4acbb275cedf780fd349.1

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1550 LARIMER ST. #964

DENVER, CO USA 80202

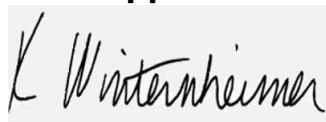
Bulk Formulation D9 2.5mg/mL

Batch ID or Lot Number: 9429	Test: Mycotoxins	Reported: 24Jul2024	USDA License: N/A
Matrix: Finished Product	Test ID: T000286600	Started: 23Jul2024	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 17Jul2024	Status: Active

Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.62 - 139.88	ND	N/A
Aflatoxin B1	1.06 - 34.41	ND	
Aflatoxin B2	1.06 - 33.88	ND	
Aflatoxin G1	1.09 - 34.18	ND	
Aflatoxin G2	1.25 - 34.34	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

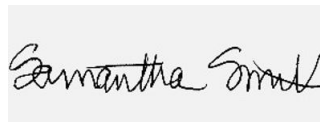


Karen Winternheimer

24Jul2024

08:57:00 AM MDT

PREPARED BY / DATE



Sam Smith

24Jul2024

09:00:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/4423b06f-954a-4f32-97eb-0c40c72f58f8>

Definitions

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