

CERTIFICATE OF ANALYSIS

Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

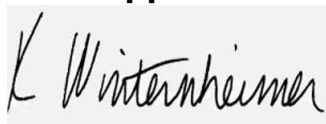
NuLeaf Naturals CBN Softgel Formulation

Batch ID or Lot Number: N430S	Test: Potency	Reported: 29Jul2024	USDA License: N/A
Matrix: Solution	Test ID: T000287003	Started: 26Jul2024	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 24Jul2024	Status: Active

Cannabinoids

	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.133	0.449	2.037	2.21	Density = 0.92g/mL
Cannabichromenic Acid (CBCA)	0.121	0.411	ND	ND	
Cannabidiol (CBD)	0.680	1.424	1.879	2.04	
Cannabidiolic Acid (CBDA)	0.698	1.460	ND	ND	
Cannabidivarin (CBDV)	0.161	0.337	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.291	0.609	ND	ND	
Cannabigerol (CBG)	0.075	0.255	1.974	2.15	
Cannabigerolic Acid (CBGA)	0.315	1.067	ND	ND	
Cannabinol (CBN)	0.098	0.333	33.309	36.21	
Cannabinolic Acid (CBNA)	0.215	0.728	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.375	1.271	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.341	1.154	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.302	1.023	ND	ND	
Tetrahydrocannabivarin (THCV)	0.069	0.232	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.266	0.902	ND	ND	
Total Cannabinoids			39.199	42.61	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			1.879	2.04	

Final Approval



Karen Winternheimer

29Jul2024

08:43:00 AM MDT

PREPARED BY / DATE



Sam Smith

29Jul2024

08:46:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/77c4aec9-c787-4905-a6d4-c43dd03f25bf>

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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Cert #4329.02



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CERTIFICATE OF ANALYSIS

Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

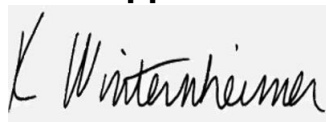
NuLeaf Naturals CBN Softgel Formulation

Batch ID or Lot Number: N430S	Test: Heavy Metals	Reported: 29Jul2024	USDA License: NA
Matrix: Finished Product	Test ID: T000287006	Started: 29Jul2024	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 24Jul2024	Status: NA

Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.95	ND	
Cadmium	0.05 - 4.59	ND	
Mercury	0.05 - 4.54	ND	
Lead	0.05 - 4.80	ND	

Final Approval



Karen Winternheimer

29Jul2024

11:19:00 AM MDT

PREPARED BY / DATE



Sam Smith

29Jul2024

11:36:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/c07b8c01-b1bd-4d1d-ab36-4dbb7cf66599>

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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Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964

DENVER, CO USA 80202

NuLeaf Naturals CBN Softgel Formulation

Batch ID or Lot Number: N430S	Test: Microbial Contaminants	Reported: 29Jul2024	USDA License: N/A
Matrix: Finished Product	Test ID: T000287005	Started: 25Jul2024	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 24Jul2024	Status: Active

Microbial

Contaminants

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



Brett Hudson
29Jul2024
03:18:00 PM MDT

PREPARED BY / DATE



Brianne Maillot
29Jul2024
03:33:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/2096df61-61fe-406c-9c1c-f0f18b333416>

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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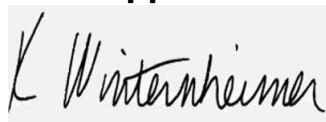
NuLeaf Naturals CBN Softgel Formulation

Batch ID or Lot Number: N430S	Test: Mycotoxins	Reported: 31Jul2024	USDA License: N/A
Matrix: Concentrate	Test ID: T000287008	Started: 30Jul2024	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 24Jul2024	Status: Active

Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.88 - 137.76	ND	N/A
Aflatoxin B1	1.06 - 34.21	ND	
Aflatoxin B2	1.03 - 33.64	ND	
Aflatoxin G1	1.13 - 33.38	ND	
Aflatoxin G2	1.23 - 34.61	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

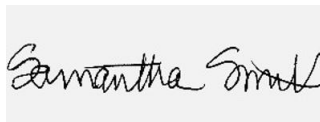


Karen Winternheimer

31Jul2024

08:30:00 AM MDT

PREPARED BY / DATE



Sam Smith

31Jul2024

08:40:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/3a8b9ef5-8719-41e0-a42a-9822f27c5f79>

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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1550 LARIMER ST. #964
DENVER, CO USA 80202

NuLeaf Naturals CBN Softgel Formulation

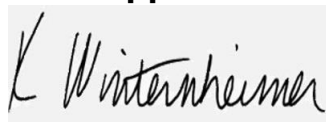
Batch ID or Lot Number: N430S	Test: Pesticides	Reported: 01Aug2024	USDA License: NA
Matrix: Concentrate	Test ID: T000287004	Started: 31Jul2024	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 24Jul2024	Status: NA

Pesticides

Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	107 - 2682	ND
Acephate	31 - 2792	ND
Acetamiprid	42 - 2774	ND
Azoxystrobin	43 - 2674	ND
Bifenazate	42 - 2680	ND
Boscalid	42 - 2687	ND
Carbaryl	41 - 2704	ND
Carbofuran	41 - 2684	ND
Chlorantraniliprole	45 - 2686	ND
Chlorpyrifos	44 - 2636	ND
Clofentezine	282 - 2706	ND
Diazinon	274 - 2682	ND
Dichlorvos	262 - 2784	ND
Dimethoate	40 - 2766	ND
E-Fenpyroximate	327 - 2678	ND
Etofenprox	41 - 2682	ND
Etoxazole	317 - 2599	ND
Fenoxycarb	22 - 2690	ND
Fipronil	38 - 2766	ND
Flonicamid	50 - 2832	ND
Fludioxonil	290 - 2689	ND
Hexythiazox	42 - 2682	ND
Imazalil	286 - 2708	ND
Imidacloprid	43 - 2798	ND
Kresoxim-methyl	47 - 2706	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	275 - 2659	ND
Metalaxyl	44 - 2679	ND
Methiocarb	42 - 2718	ND
Methomyl	40 - 2828	ND
MGK 264 1	177 - 1644	ND
MGK 264 2	96 - 1072	ND
Myclobutanil	43 - 2658	ND
Naled	52 - 2679	ND
Oxamyl	45 - 2848	ND
Paclobutrazol	44 - 2690	ND
Permethrin	332 - 2727	ND
Phosmet	40 - 2546	ND
Prophos	291 - 2704	ND
Propoxur	41 - 2702	ND
Pyridaben	330 - 2693	ND
Spinosad A	31 - 2075	ND
Spinosad D	72 - 648	ND
Spiromesifen	320 - 2660	ND
Spirotetramat	282 - 2737	ND
Spiroxamine 1	17 - 1026	ND
Spiroxamine 2	26 - 1580	ND
Tebuconazole	290 - 2633	ND
Thiacloprid	43 - 2796	ND
Thiamethoxam	42 - 2815	ND
Trifloxystrobin	42 - 2699	ND

Final Approval



Karen Winternheimer
01Aug2024
09:19:00 AM MDT

PREPARED BY / DATE



Sam Smith
01Aug2024
09:24:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/dfa8e569-0e8c-4300-a4f2-7e2031bbeff.1>

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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DENVER, CO USA 80202

NuLeaf Naturals CBN Softgel Formulation

Batch ID or Lot Number: N430S	Test: Residual Solvents	Reported: 26Jul2024	USDA License: N/A
Matrix: Finished Product	Test ID: T000287007	Started: 25Jul2024	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 24Jul2024	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	83 - 1659	ND	
Butanes (Isobutane, n-Butane)	166 - 3317	ND	
Methanol	61 - 1214	ND	
Pentane	86 - 1716	ND	
Ethanol	95 - 1891	ND	
Acetone	99 - 1976	ND	
Isopropyl Alcohol	103 - 2068	ND	
Hexane	6 - 121	ND	
Ethyl Acetate	102 - 2031	ND	
Benzene	0.2 - 4.1	ND	
Heptanes	94 - 1889	ND	
Toluene	18 - 369	ND	
Xylenes (m,p,o-Xylenes)	134 - 2677	ND	

Final Approval



Sam Smith
26Jul2024
08:27:00 AM MDT

PREPARED BY / DATE



Karen Winternheimer
26Jul2024
08:30:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/05b558d9-5b39-4864-abcc-403ca5a2f622>

Definitions

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