CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic CBD Tincture - Mint
PRODUCT STRENGTH: 900mg
TINCTURE BATCH: 220804C
BEST BY DATE: 06/30/2024
HEMP EXTRACT LOT: BCA-000389-220607

Physical Atttributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber	PASS
Odor	Internal	Characteristic - Olive and Hemp, Minty	PASS
Appearance	Internal	Golden to Amber oil in brown glass bottle with dropper.	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	Internal	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	HPLC-UV DAD	LOQ**: ≥ product strength mg / bottle	**31.3mg**	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	**Below LOQ**	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	**Below LOQ**	PASS
Microbial Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram***	**Absent**	PASS
Microbial Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	**Absent**	PASS
Microbial Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^2 CFU/gram	**Below LOQ**	PASS
Microbial Total Coliforms	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^2 CFU/gram	**Below LOQ**	PASS
Microbial Total Aerobic Count	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^3 CFU/gram	**Below LOQ**	PASS
Heavy Metals	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	**Below LOQ**	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb†† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	**Below LOQ**	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	**Below LOQ**	PASS

*Only applies to products with labels claiming certified organic
**Level of Quantification
***Colony Forming Units per Gram
† Parts Per Million †† Part Per Billion

Values expressed in scientific notation.
Examples:
10^2=100
10^3=1,000

Quality Certified — Name — 6/24/22 — Date

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Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

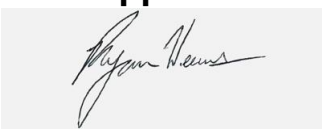
900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number:	Test:	Reported:	USDA License:
BCA-000389-220607	**Potency**	**14Jun2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000209811	13Jun2022	N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 10Jun2022	Status: Active

Cannabinoids

	LOD (%)	**LOQ** (%)	**Result** (%)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.017	0.054	ND	ND	
Cannabichromenic Acid (CBCA)	0.015	0.049	ND	ND	
Cannabidiol (CBD)	0.047	0.139	3.405	34.05	
Cannabidiolic Acid (CBDA)	0.048	0.143	ND	ND	
Cannabidivarin (CBDV)	0.011	0.033	<LOQ	0.12	
Cannabidivarinic Acid (CBDVA)	0.020	0.060	ND	ND	
Cannabigerol (CBG)	0.009	0.030	0.221	2.21	
Cannabigerolic Acid (CBGA)	0.039	0.127	ND	ND	
Cannabinol (CBN)	0.012	0.040	ND	ND	
Cannabinolic Acid (CBNA)	0.027	0.087	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.047	0.152	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.042	0.138	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.038	0.122	ND	ND	
Tetrahydrocannabivarin (THCV)	0.009	0.028	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.033	0.108	ND	ND	
Total Cannabinoids			**3.638**	**36.38**	
Total Potential THC			ND	ND	
Total Potential CBD			3.405	34.05	

Final Approval



PREPARED BY / DATE

Ryan Weems
14Jun2022
12:07:00 PM MDT

APPROVED BY / DATE

Karen Winternheimer
14Jun2022
12:11:00 PM MDT

https://results.botanacor.com/api/v1/coas/uuid/08cc1533-84b5-4a8e-80c5-f618bbdeb67b

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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Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number:	22-009427/D005.R000
Report Date:	08/16/2022
ORELAP#:	OR100028
Purchase Order:	22082A + 220804C
Received:	08/09/22 10:18

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2206728	08/12/22	AOAC 990.12 (Petrifilm)þ		
E.coli	< LOQ		cfu/g	10	2206726	08/12/22	AOAC 991.14 (Petrifilm)þ		
Total Coliforms	< LOQ		cfu/g	10	2206726	08/12/22	AOAC 991.14 (Petrifilm)þ		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2206727	08/13/22	AOAC 2014.05 (RAPID)þ		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2206727	08/13/22	AOAC 2014.05 (RAPID)þ		
Salmonella spp. by PCR	Negative		/5g		2206731	08/11/22	AOAC 2020.02þ		I
EHEC including STEC	Negative		/5g		2206734	08/11/22	AOAC RI 121806þ		I

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900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number:	Test:	Reported:	USDA License:
BCA-000389-220607	**Residual Solvents**	**14Jun2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000209814	14Jun2022	N/A
	Method(s):	Received:	Status:
	TM04 (GC-MS): Residual Solvents	10Jun2022	Active

Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	91 - 1825	ND	
Butanes (Isobutane, n-Butane)	139 - 2779	ND	
Methanol	57 - 1131	ND	
Pentane	81 - 1620	ND	
Ethanol	82 - 1640	ND	
Acetone	88 - 1752	ND	
Isopropyl Alcohol	93 - 1850	ND	
Hexane	6 - 114	ND	
Ethyl Acetate	91 - 1828	ND	
Benzene	0.2 - 3.7	ND	
Heptanes	89 - 1783	ND	
Toluene	17 - 332	ND	
Xylenes (m,p,o-Xylenes)	121 - 2428	ND	

Final Approval

Jacob Miller
14Jun2022
05:51:00 PM MDT

PREPARED BY / DATE

Ryan Weems
14Jun2022
05:55:00 PM MDT

APPROVED BY / DATE

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

Cert #4329.02

Certified Test Laboratory

CDPHE Certified

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Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number:	Test:	Reported:	USDA License:
BCA-000389-220607	**Mycotoxins**	**14Jun2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000209815	13Jun2022	N/A
	Method(s):	Received:	Status:
	TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	10Jun2022	Active

Mycotoxins	**Dynamic Range** (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	3.75 - 130.56	ND	N/A
Aflatoxin B1	1.02 - 32.57	ND	
Aflatoxin B2	1.05 - 32.35	ND	
Aflatoxin G1	0.99 - 32.70	ND	
Aflatoxin G2	1.05 - 32.66	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Jacob Miller
14Jun2022
02:49:00 PM MDT

PREPARED BY / DATE

Ryan Weems
14Jun2022
02:52:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/c59f3eb4-008d-41b3-a826-15b3a83185b3

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

Cert #4329.02

Certified Test Laboratory

CDPHE Certified

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Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

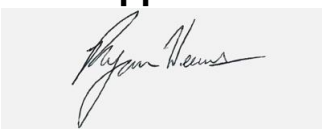
900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number:	Test:	Reported:	USDA License:
BCA-000389-220607	**Heavy Metals**	**14Jun2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Unit Co	T000209813	14Jun2022	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	10Jun2022	NA

Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.05 - 4.58	ND	
Cadmium	0.05 - 4.53	ND	
Mercury	0.04 - 4.43	ND	
Lead	0.05 - 4.66	ND	

Final Approval



Ryan Weems
14Jun2022
02:50:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul
14Jun2022
02:53:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/f6748d30-6fdd-4791-80a7-c909ec3f3a99

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

Cert #4329.02

Certified Test Laboratory

CDPHE Certified

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CERTIFICATE OF ANALYSIS

900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number:	Test:	Reported:	USDA License:
BCA-000389-220607	**Pesticides**	**16Jun2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000209812	14Jun2022	NA
	Method(s):	Received:	Status:
	TM17 (LC-QQ LC MS/MS)	10Jun2022	NA

Pesticides

	Dynamic Range (ppb)	**Result** (ppb)
Abamectin	365 - 2660	ND
Acephate	45 - 2774	ND
Acetamiprid	43 - 2778	ND
Azoxystrobin	40 - 2739	ND
Bifenazate	42 - 2765	ND
Boscalid	15 - 2744	ND
Carbaryl	40 - 2776	ND
Carbofuran	43 - 2761	ND
Chlorantraniliprole	46 - 2731	ND
Chlorpyrifos	47 - 2776	ND
Clofentezine	306 - 2776	ND
Diazinon	298 - 2777	ND
Dichlorvos	311 - 2758	ND
Dimethoate	45 - 2766	ND
E-Fenpyroximate	296 - 2737	ND
Etofenprox	42 - 2726	ND
Etoxazole	299 - 2708	ND
Fenoxycarb	45 - 2737	ND
Fipronil	39 - 2733	ND
Flonicamid	4 - 2732	ND
Fludioxonil	260 - 2633	ND
Hexythiazox	49 - 2737	ND
Imazalil	286 - 2760	ND
Imidacloprid	51 - 2800	ND
Kresoxim-methyl	53 - 2822	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	304 - 2758	ND
Metalaxyl	51 - 2788	ND
Methiocarb	39 - 2735	ND
Methomyl	42 - 2747	ND
MGK 264 1	187 - 1618	ND
MGK 264 2	129 - 1129	ND
Myclobutanil	37 - 2661	ND
Naled	28 - 2666	ND
Oxamyl	3 - 2768	ND
Paclobutrazol	41 - 2732	ND
Permethrin	340 - 2681	ND
Phosmet	41 - 2752	ND
Prophos	290 - 2708	ND
Propoxur	39 - 2744	ND
Pyridaben	302 - 2767	ND
Spinosad A	36 - 2242	ND
Spinosad D	55 - 497	ND
Spiromesifen	306 - 2722	ND
Spirotetramat	292 - 2784	ND
Spiroxamine 1	17 - 1160	ND
Spiroxamine 2	21 - 1502	ND
Tebuconazole	259 - 2755	ND
Thiacloprid	41 - 2763	ND
Thiamethoxam	45 - 2752	ND
Trifloxystrobin	41 - 2736	ND

Final Approval

Karen Winternheimer
16Jun2022
04:48:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul
16Jun2022
05:01:00 PM MDT

APPROVED BY / DATE

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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

Cert #4329.02
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