

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Organic CBD Tincture - Natural
PRODUCT STRENGTH:	900mg
TINCTURE BATCH:	230829A
BEST BY DATE:	8/29/2025
HEMP EXTRACT LOT:	230202F

Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	Characteristic - Olive and Hemp	PASS
Appearance	Joy Internal	Golden to Amber oil in brown glass bottle with dropper.	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	Joy 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	*NLT (product strength) mg / bottle	1066mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	ND	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	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 Panel	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	ND	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	ND	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	PASS

* Level of Quantitation, † Parts Per Million ‡ Part Per Billion CFU/g=Colony Forming Units per Gram
*Nothing Less Than
10²=100 CFU
10³=1,000 CFU

Quality Certified



Name

9/22/2023


Date

900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Potency	Reported: 10Feb2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000235005	Started: 09Feb2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 08Feb2023	Status: Active

Cannabinoids	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.007	0.021	<LOQ	<LOQ	
Cannabichromenic Acid (CBCA)	0.007	0.019	ND	ND	
Cannabidiol (CBD)	0.017	0.057	3.864	38.64	
Cannabidiolic Acid (CBDA)	0.018	0.058	ND	ND	
Cannabidivarin (CBDV)	0.004	0.013	0.019	0.19	
Cannabidivarinic Acid (CBDVA)	0.007	0.024	ND	ND	
Cannabigerol (CBG)	0.004	0.012	0.246	2.46	
Cannabigerolic Acid (CBGA)	0.017	0.049	ND	ND	
Cannabinol (CBN)	0.005	0.015	ND	ND	
Cannabinolic Acid (CBNA)	0.012	0.034	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.020	0.059	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.019	0.053	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.016	0.047	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.011	<LOQ	<LOQ	
Tetrahydrocannabivarinic Acid (THCVA)	0.014	0.042	ND	ND	
Total Cannabinoids			4.129	41.29	
Total Potential THC			ND	ND	
Total Potential CBD			3.864	38.64	

Final Approval



Karen Winternheimer
10Feb2023
08:49:00 AM MST

PREPARED BY / DATE



Sam Smith
10Feb2023
09:17:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/e4bb28cc-85f7-4980-8078-ea62742dbc32>

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)).

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified


e4bb28cc85f749808078ea62742dbc32.1

900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Pesticides	Reported: 10Feb2023	USDA License: NA
Matrix: Concentrate	Test ID: T000235006	Started: 08Feb2023	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 08Feb2023	Status: NA

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	358 - 2647	ND	Malathion	280 - 2717	ND
Acephate	42 - 2759	ND	Metalaxyl	46 - 2718	ND
Acetamiprid	43 - 2753	ND	Methiocarb	41 - 2688	ND
Azoxystrobin	44 - 2729	ND	Methomyl	43 - 2762	ND
Bifenazate	43 - 2722	ND	MGK 264 1	154 - 1645	ND
Boscalid	45 - 2744	ND	MGK 264 2	116 - 1140	ND
Carbaryl	43 - 2719	ND	Myclobutanil	45 - 2763	ND
Carbofuran	44 - 2734	ND	Naled	43 - 2762	ND
Chlorantraniliprole	43 - 2726	ND	Oxamyl	41 - 2766	ND
Chlorpyrifos	53 - 2824	ND	Pacllobutrazol	40 - 2726	ND
Clofentezine	275 - 2769	ND	Permethrin	313 - 2795	ND
Diazinon	292 - 2733	ND	Phosmet	44 - 2709	ND
Dichlorvos	275 - 2786	ND	Prophos	312 - 2672	ND
Dimethoate	41 - 2737	ND	Propoxur	41 - 2724	ND
E-Fenpyroximate	293 - 2797	ND	Pyridaben	313 - 2786	ND
Etofenprox	41 - 2790	ND	Spinosad A	35 - 2253	ND
Etoxazole	309 - 2762	ND	Spinosad D	52 - 508	ND
Fenoxycarb	47 - 2690	ND	Spiromesifen	292 - 2770	ND
Fipronil	56 - 2762	ND	Spirotetramat	274 - 2731	ND
Flonicamid	43 - 2825	ND	Spiroxamine 1	16 - 1206	ND
Fludioxonil	318 - 2756	ND	Spiroxamine 2	21 - 1539	ND
Hexythiazox	45 - 2799	ND	Tebuconazole	277 - 2724	ND
Imazalil	288 - 2739	ND	Thiacloprid	44 - 2774	ND
Imidacloprid	41 - 2755	ND	Thiamethoxam	42 - 2785	ND
Kresoxim-methyl	23 - 2807	ND	Trifloxystrobin	44 - 2758	ND

Final Approval



Karen Winternheimer
10Feb2023
06:26:00 AM MST

PREPARED BY / DATE



Sam Smith
10Feb2023
06:29:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/4fada679-bc8f-4e0b-9fa7-a0e79c523e30>

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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Cert #4329.02
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900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Residual Solvents	Reported: 09Feb2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000235009	Started: 08Feb2023	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 08Feb2023	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	105 - 2098	ND	
Butanes (Isobutane, n-Butane)	217 - 4346	ND	
Methanol	68 - 1351	ND	
Pentane	110 - 2196	ND	
Ethanol	113 - 2258	ND	
Acetone	109 - 2184	ND	
Isopropyl Alcohol	113 - 2268	ND	
Hexane	6 - 130	ND	
Ethyl Acetate	110 - 2207	ND	
Benzene	0.2 - 4.4	ND	
Heptanes	108 - 2165	ND	
Toluene	20 - 403	ND	
Xylenes (m,p,o-Xylenes)	152 - 3047	ND	

Final Approval



Karen Winternheimer
09Feb2023
07:32:00 AM MST

PREPARED BY / DATE



Sam Smith
09Feb2023
07:35:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/7521691a-e463-4625-88ca-1134035c1aa3>

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

CDPHE Certified


7521691ae463462588ca1134035c1aa3.1


900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Heavy Metals	Reported: 15Feb2023	USDA License: NA
Matrix: Unit Co	Test ID: T000235008	Started: 10Feb2023	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 08Feb2023	Status: NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.06 - 5.87	ND	
Cadmium	0.06 - 5.98	ND	
Mercury	0.06 - 5.83	ND	
Lead	0.06 - 6.02	ND	

Final Approval


 Sam Smith
 15Feb2023
 09:39:00 AM MST
 PREPARED BY / DATE


 Karen Winternheimer
 15Feb2023
 09:42:00 AM MST
 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

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Cert #4329.02

CDPHE Certified
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900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Microbial Contaminants	Reported: 13Feb2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000235007	Started: 08Feb2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 08Feb2023	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



Brett Hudson
12Feb2023
11:55:00 AM MST

PREPARED BY / DATE



Eden Thompson-Wright
13Feb2023
04:24:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/1d1eef77-8e4c-498e-a420-9efc2ca5098f>

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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900mg CBD Broad Spectrum Tincture- Natural

Batch ID or Lot Number: 230829A	Test: Mycotoxins	Reported: 17Feb2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000235010	Started: 16Feb2023	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 08Feb2023	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.11 - 136.71	ND	N/A
Aflatoxin B1	0.59 - 33.50	ND	
Aflatoxin B2	0.62 - 33.47	ND	
Aflatoxin G1	0.59 - 33.93	ND	
Aflatoxin G2	0.65 - 34.06	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Samantha Smith
17Feb2023
06:47:00 AM MST

PREPARED BY / DATE


Karen Winternheimer
17Feb2023
06:51:00 AM MST

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

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Cert #4329.02

CDPHE Certified
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