

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic Full Spectrum CBD Tincture - Lime
PRODUCT STRENGTH: 900mg
TINCTURE BATCH: 231103A
BEST BY DATE: 11/03/2025
HEMP EXTRACT LOT: 230320B

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

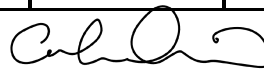
Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	HPLC-UV DAD	LOQ*: ≥ 900 mg / bottle	1077mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.3% total THC (Full spectrum), mg/bottle	31mg	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	Below 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†† Aflatoxin B1 < 5 ppb Ochratoxin < 5 ppb	Below LOQ	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	Below LOQ	PASS

*Level of Quantification
 **Colony Forming Units per Gram
 † Parts Per Million †† Part Per Billion

Values expressed in scientific notation.
 Examples:
 10²=100
 10³=1,000

Quality Certified

Name



11/30/2023


Date


900mg CBD Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Potency	Reported: 28Mar2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000239613	Started: 27Mar2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 23Mar2023	Status: Active

Cannabinoids	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.007	0.021	0.141	1.41	
Cannabichromenic Acid (CBCA)	0.007	0.019	ND	ND	
Cannabidiol (CBD)	0.021	0.056	3.626	36.26	
Cannabidiolic Acid (CBDA)	0.021	0.057	ND	ND	
Cannabidivarin (CBDV)	0.005	0.013	0.024	0.24	
Cannabidivarinic Acid (CBDVA)	0.009	0.024	ND	ND	
Cannabigerol (CBG)	0.004	0.012	0.080	0.80	
Cannabigerolic Acid (CBGA)	0.017	0.050	ND	ND	
Cannabinol (CBN)	0.005	0.016	ND	ND	
Cannabinolic Acid (CBNA)	0.012	0.034	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.020	0.060	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.018	0.054	0.106	1.06	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.016	0.048	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.011	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.014	0.042	ND	ND	
Total Cannabinoids			3.977	39.77	
Total Potential THC			0.106	1.06	
Total Potential CBD			3.626	36.26	

Final Approval


 Sam Smith
 28Mar2023
 08:52:00 AM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 28Mar2023
 08:56:00 AM MDT
 APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/a4007bf7-3cdf-48b4-8a02-f0cbaa823fea>

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
 a4007bf73cdf48b48a02f0cbaa823fea.1


900mg CBD Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Residual Solvents	Reported: 28Mar2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000239617	Started: 28Mar2023	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 23Mar2023	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	94 - 1887	ND	
Butanes (Isobutane, n-Butane)	192 - 3838	ND	
Methanol	56 - 1126	ND	
Pentane	93 - 1865	ND	
Ethanol	93 - 1867	ND	
Acetone	91 - 1823	ND	
Isopropyl Alcohol	95 - 1898	ND	
Hexane	6 - 111	ND	
Ethyl Acetate	93 - 1853	ND	
Benzene	0.2 - 3.9	ND	
Heptanes	97 - 1942	ND	
Toluene	17 - 330	ND	
Xylenes (m,p,o-Xylenes)	118 - 2370	ND	

Final Approval


 Sam Smith
 28Mar2023
 03:38:00 PM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 28Mar2023
 03:46:00 PM MDT
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<https://results.botanacor.com/api/v1/coas/uuid/d2c0e254-0295-4e88-a663-42b4e8702ce3>

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

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
 d2c0e25402954e88a66342b4e8702ce3.1


900mg CBD Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Heavy Metals	Reported: 29Mar2023	USDA License: NA
Matrix: Unit Co	Test ID: T000239616	Started: 29Mar2023	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 23Mar2023	Status: NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.58	ND	
Cadmium	0.05 - 4.54	ND	
Mercury	0.05 - 4.56	ND	
Lead	0.05 - 4.53	ND	

Final Approval


 Sam Smith
 29Mar2023
 02:24:00 PM MDT
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 Karen Winternheimer
 29Mar2023
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<https://results.botanacor.com/api/v1/coas/uuid/42581c1a-4e19-48ab-a3fb-85cb50837f92>

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

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
 42581c1a4e1948aba3fb85cb50837f92.1

900mg CBD Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Pesticides	Reported: 30Mar2023	USDA License: NA
Matrix: Concentrate	Test ID: T000239614	Started: 29Mar2023	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 23Mar2023	Status: NA

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	374 - 2672	ND	Malathion	279 - 2740	ND
Acephate	18 - 2844	ND	Metalaxyl	44 - 2755	ND
Acetamiprid	40 - 2758	ND	Methiocarb	40 - 2669	ND
Azoxystrobin	45 - 2727	ND	Methomyl	42 - 2802	ND
Bifenazate	41 - 2784	ND	MGK 264 1	175 - 1559	ND
Boscalid	66 - 2638	ND	MGK 264 2	119 - 1122	ND
Carbaryl	43 - 2727	ND	Myclobutanil	47 - 2696	ND
Carbofuran	42 - 2705	ND	Naled	50 - 2695	ND
Chlorantraniliprole	42 - 2649	ND	Oxamyl	44 - 2792	ND
Chlorpyrifos	55 - 2672	ND	Pacllobutrazol	49 - 2706	ND
Clofentezine	293 - 2709	ND	Permethrin	261 - 2620	ND
Diazinon	289 - 2767	ND	Phosmet	40 - 2745	ND
Dichlorvos	274 - 2725	ND	Prophos	296 - 2692	ND
Dimethoate	40 - 2753	ND	Propoxur	40 - 2711	ND
E-Fenpyroximate	287 - 2726	ND	Pyridaben	311 - 2711	ND
Etofenprox	48 - 2703	ND	Spinosad A	34 - 2208	ND
Etoxazole	306 - 2700	ND	Spinosad D	54 - 492	ND
Fenoxycarb	43 - 2757	ND	Spiromesifen	284 - 2702	ND
Fipronil	39 - 2784	ND	Spirotetramat	276 - 2790	ND
Flonicamid	42 - 2787	ND	Spiroxamine 1	19 - 1142	ND
Fludioxonil	333 - 2624	ND	Spiroxamine 2	24 - 1509	ND
Hexythiazox	45 - 2742	ND	Tebuconazole	274 - 2734	ND
Imazalil	289 - 2748	ND	Thiacloprid	43 - 2751	ND
Imidacloprid	40 - 2751	ND	Thiamethoxam	44 - 2778	ND
Kresoxim-methyl	43 - 2817	ND	Trifloxystrobin	40 - 2722	ND

Final Approval



Karen Winternheimer
30Mar2023
12:35:00 PM MDT

PREPARED BY / DATE



Sam Smith
30Mar2023
12:51:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/a826fdbf-61e8-427d-8ce7-eedfd4a70b27>

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 Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Mycotoxins	Reported: 29Mar2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000239618	Started: 28Mar2023	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 23Mar2023	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.77 - 123.37	ND	N/A
Aflatoxin B1	1.01 - 31.98	ND	
Aflatoxin B2	1.01 - 31.70	ND	
Aflatoxin G1	1.14 - 31.51	ND	
Aflatoxin G2	1.11 - 32.08	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


 Sam Smith
 29Mar2023
 06:44:00 AM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 29Mar2023
 06:47:00 AM MDT
 APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/e33b9ccb-7a4d-49a7-a922-7d5dcbbad087>

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
 e33b9ccb7a4d49a7a9227d5dcbbad087.1

900mg CBD Full-Spectrum Tincture- Lime

Batch ID or Lot Number: 231103A	Test: Microbial Contaminants	Reported: 13Nov2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000261500	Started: 09Nov2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 09Nov2023	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
13Nov2023
09:42:00 AM MST

PREPARED BY / DATE



Eden Thompson-Wright
13Nov2023
10:33:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/ec3dd111-e69c-4d15-94af-11a2f3a754ea>

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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