

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic CBD Full Spectrum Tincture - Natural
PRODUCT STRENGTH: 2250mg
TINCTURE BATCH: 231016A
BEST BY DATE: 10/16/2025
HEMP EXTRACT LOT: NF/Q/2232:

Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	Characteristic - Coconut and hemp, lime	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	2283mg	PASS
Potency - D9-THC	HPLC-UV DAD	Full Spectrum <0.3%)	62mg	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	Below LOQ	PASS
Microbial Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	Below LOQ	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



11/30/2023

Quality Certified

Name

Date

2250mg Full Spectrum Natural Tincture

Batch ID or Lot Number: 231016A	Test: Potency	Reported: 20Sep2023	USDA License: N/A
Matrix: Concentrate	Test ID: T000256250	Started: 19Sep2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 18Sep2023	Status: Active

Cannabinoids

	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.005	0.017	0.293	2.93	
Cannabichromenic Acid (CBCA)	0.004	0.016	ND	ND	
Cannabidiol (CBD)	0.020	0.052	7.685	76.85	
Cannabidiolic Acid (CBDA)	0.021	0.053	<LOQ	<LOQ	
Cannabidivarin (CBDV)	0.005	0.012	0.053	0.53	
Cannabidivarinic Acid (CBDVA)	0.009	0.022	ND	ND	
Cannabigerol (CBG)	0.003	0.010	ND	ND	
Cannabigerolic Acid (CBGA)	0.011	0.041	ND	ND	
Cannabinol (CBN)	0.003	0.013	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.008	0.028	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.013	0.049	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.012	0.044	0.210	2.10	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.011	0.039	ND	ND	
Tetrahydrocannabivarin (THCV)	0.002	0.009	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.009	0.035	ND	ND	
Total Cannabinoids			8.241	82.41	
Total Potential THC			0.210	2.10	
Total Potential CBD			7.685	76.85	

Final Approval



Karen Winternheimer
20Sep2023
09:31:00 AM MDT

PREPARED BY / DATE



Sam Smith
20Sep2023
09:33:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f537d549-ae1f-4be9-b5a5-757c75498f90>

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
f537d549ae1f4be9b5a5757c75498f90.1

2250mg Full Spectrum Natural Tincture

Batch ID: 231016A	Test ID: T000126131
Type: Concentrate	Submitted: 02/25/2021 @ 12:03 PM
Test: Pesticides	Started: 2/25/2021
Method: TM17	Reported: 3/1/2021


PESTICIDE RESIDUE

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	34 - 2468	ND*	Malathion	291 - 2468	ND*
Acetamiprid	40 - 2468	ND*	Metalaxyl	39 - 2468	ND*
Abamectin	>342	ND*	Methiocarb	38 - 2468	ND*
Azoxystrobin	42 - 2468	ND*	Methomyl	42 - 2468	ND*
Bifenazate	28 - 2468	ND*	MGK 264 1	160 - 2468	ND*
Boscalid	42 - 2468	ND*	MGK 264 2	101 - 2468	ND*
Carbaryl	38 - 2468	ND*	Myclobutanil	38 - 2468	ND*
Carbofuran	39 - 2468	ND*	Naled	41 - 2468	ND*
Chlorantraniliprole	37 - 2468	ND*	Oxamyl	38 - 2468	ND*
Chlorpyrifos	42 - 2468	ND*	Paclobutrazol	40 - 2468	ND*
Clofentezine	269 - 2468	ND*	Permethrin	269 - 2468	ND*
Diazinon	280 - 2468	ND*	Phosmet	41 - 2468	ND*
Dichlorvos	>286	ND*	Propfos	298 - 2468	ND*
Dimethoate	40 - 2468	ND*	Propxur	38 - 2468	ND*
E-Fenpyroximate	279 - 2468	ND*	Pyridaben	281 - 2468	ND*
Etofenprox	41 - 2468	ND*	Spinosad A	30 - 2468	ND*
Etoazole	289 - 2468	ND*	Spinosad D	76 - 2468	ND*
Fenoxycarb	>31	ND*	Spiromesifen	>273	ND*
Fipronil	38 - 2468	ND*	Spirotetramat	>299	ND*
Flonicamid	38 - 2468	ND*	Spiroxamine 1	17 - 2468	ND*
Fludioxonil	>286	ND*	Spiroxamine 2	22 - 2468	ND*
Hexythiazox	36 - 2468	ND*	Tebuconazole	285 - 2468	ND*
Imazalil	272 - 2468	ND*	Thiacloprid	42 - 2468	ND*
Imidacloprid	41 - 2468	ND*	Thiamethoxam	38 - 2468	ND*
Kresoxim-methyl	43 - 2468	ND*	Trifloxystrobin	40 - 2468	ND*


* ND = None Detected (Defined by Dynamic Range of the method)

N/A

FINAL APPROVAL


 Tyler Wiese
 1-Mar-2021
 12:03 PM

PREPARED BY / DATE


 Ben Minton
 1-Mar-2021
 1:06 PM

APPROVED BY / DATE


Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC.

2250mg Full Spectrum Natural Tincture

Batch ID or Lot Number: 231016A	Test: Mycotoxins	Reported: 21Oct2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000223802	Started: 19Oct2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 07Oct2022	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.29 - 118.48	ND	N/A
Aflatoxin B1	0.85 - 30.17	ND	
Aflatoxin B2	2.29 - 29.70	ND	
Aflatoxin G1	0.97 - 29.91	ND	
Aflatoxin G2	1.18 - 29.79	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval



Sam Smith
21Oct2022
10:29:00 AM MDT

PREPARED BY / DATE



Karen Winternheimer
21Oct2022
10:31:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8ccc393e-3ea3-4eb0-90d5-8e4c9ec4fb5e>

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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2250mg Full Spectrum Natural Tincture

Batch ID: 231016A	Test ID: T000126134
Type: Concentrate	Submitted: 02/25/2021 @ 12:03 PM
Test: Residual Solvents	Started: 3/2/2021
Method: TM04	Reported: 3/2/2021

RESIDUAL SOLVENTS

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	96 - 1911	*ND
Butanes (Isobutane, n-Butane)	178 - 3556	*ND
Methanol	53 - 1054	*ND
Pentane	91 - 1816	*ND
Ethanol	92 - 1838	*ND
Acetone	92 - 1849	*ND
Isopropyl Alcohol	97 - 1933	*ND
Hexane	6 - 116	*ND
Ethyl Acetate	96 - 1919	*ND
Benzene	0.2 - 3.7	*ND
Heptanes	92 - 1838	*ND
Toluene	17 - 335	*ND
Xylenes (m,p,o-Xylenes)	118 - 2359	*ND


* ND = None Detected (Defined by Dynamic Range of the method)

NOTES:
N/A

FINAL APPROVAL

 Ryan Weems
2-Mar-2021
3:08 PM

PREPARED BY / DATE

 Ben Minton
2-Mar-2021
6:32 PM

APPROVED BY / DATE

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Certificate #4329.02

2250mg Full Spectrum Natural Tincture

Batch ID: 231016A	Test ID: T000126133
Type: Concentrate	Submitted: 02/25/2021 @ 12:03 PM
Test: Metals	Started: 3/2/2021
Method: TM19	Reported: 3/3/2021

HEAVY METALS

Analyte	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.092 - 9.20	ND
Cadmium	0.095 - 9.53	ND
Mercury	0.095 - 9.55	ND
Lead	0.095 - 9.52	ND

* ND = None Detected (Defined by Dynamic Range of the method)

FINAL APPROVALDaniel Weidensaul
3-Mar-2021
11:00 AMBen Minton
3-Mar-2021
12:36 PM

PREPARED BY / DATE

APPROVED BY / DATE

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2250mg Full Spectrum 2250mg Tincture

Batch ID or Lot Number: 231016A	Test: Microbial Contaminants	Reported: 23Oct2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000259276	Started: 19Oct2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 19Oct2023	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



Eden Thompson-Wright
23Oct2023
10:27:00 AM MDT



Brett Hudson
23Oct2023
01:03:00 PM MDT



PREPARED BY / DATE

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/6a38ef99-5b3f-4efa-b81f-71db851ef542>

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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