

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic CBD Tincture - Natural
PRODUCT STRENGTH: 450mg
TINCTURE BATCH: 250305B
BEST BY DATE: 3/5/2027
HEMP EXTRACT LOT: 250218F, 250304C & 250304D, O-1206-0129-FT-BSD

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	645mg	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† Aflatoxin B1 < 5 ppb Ochratoxin < 5ppb		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

3/20/2025

Date



Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: Not Detected

Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: 645.090 mg/unit

Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDS: 690.540 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN

TOTAL CBG: 43.410 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: ND

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 2.040 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 02/21/2025

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.8021	21.503	2.1503
CBG	0.002 / 0.006	±0.0702	1.447	0.1447
CBDV	0.002 / 0.012	±0.0028	0.068	0.0068
Δ^9 -THC	0.002 / 0.014	N/A	ND	ND
Δ^8 -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002 / 0.012	N/A	ND	ND
THCVa	0.002 / 0.019	N/A	ND	ND
CBDa	0.001 / 0.026	N/A	ND	ND
CBDVa	0.001 / 0.018	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
CBL	0.003 / 0.010	N/A	ND	ND
CBN	0.001 / 0.007	N/A	ND	ND
CBC	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
SUM OF CANNABINOIDS			23.018 mg/g	2.3018%

Unit Mass: 30 grams per Unit / Serving Size: 1 grams per Serving

Δ^9 -THC per Unit	110 per-package limit	ND	PASS
Δ^9 -THC per Serving		ND	PASS
Total THC per Unit		ND	
Total THC per Serving		ND	
CBD per Unit		645.090 mg/unit	
CBD per Serving		21.503 mg/serving	
Total CBD per Unit		645.090 mg/unit	
Total CBD per Serving		21.503 mg/serving	
Sum of Cannabinoids per Unit		690.540 mg/unit	
Sum of Cannabinoids per Serving		23.018 mg/serving	
Total Cannabinoids per Unit		690.540 mg/unit	
Total Cannabinoids per Serving		23.018 mg/serving	

DENSITY TEST RESULT

0.8989 g/mL
Tested 02/21/2025
Method: QSP 7870 - Sample Preparation

Organic Tincture- 450mg - Natural

Batch ID or Lot Number: 250305B

Test, Test ID and Methods:

Matrix:

Various

Concentrate

Reported:

03Feb2025

Started:

31Jan2025

Received:

30Jan2025

**Residual Solvents -
Colorado Compliance**

Test ID: T000297931

Methods: TM04 (GC-MS): Residual

Solvents

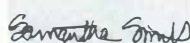
	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	83 - 1670	ND	
Butanes (Isobutane, n-Butane)	165 - 3308	ND	
Methanol	52 - 1035	ND	
Pentane	86 - 1710	ND	
Ethanol	90 - 1806	ND	
Acetone	91 - 1817	ND	
Isopropyl Alcohol	95 - 1900	ND	
Hexane	6 - 110	ND	
Ethyl Acetate	94 - 1872	ND	
Benzene	0.2 - 3.6	ND	
Heptanes	89 - 1782	ND	
Toluene	17 - 331	ND	
Xylenes (m,p,o-Xylenes)	122 - 2430	ND	

Final Approval



Judith Marquez
06Feb2025
07:50:00 AM MST

PREPARED BY / DATE



Sam Smith
06Feb2025
07:56:00 AM MST

APPROVED BY / DATE

Organic Tincture- 450mg - Natural

BatchID or Lot Number: 250305B

 Test, Test ID and Methods:
 Various

 Matrix:
 Concentrate

 Reported:
03Feb2025

 Started:
 31Jan2025

 Received:
 30Jan2025

Pesticides

Test ID: T000297928

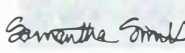
Methods: TM17

(LC-QQ LC MS/MS)

	Dynamic Range (ppb)	Result (ppb)
Abamectin	381 - 2759	ND
Acephate	34 - 2749	ND
Acetamiprid	42 - 2758	ND
Azoxystrobin	42 - 2753	ND
Bifenazate	39 - 2790	ND
Boscalid	45 - 2734	ND
Carbaryl	39 - 2680	ND
Carbofuran	41 - 2706	ND
Chlorantraniliprole	40 - 2746	ND
Chlorpyrifos	44 - 2701	ND
Clofentezine	280 - 2730	ND
Diazinon	287 - 2743	ND
Dichlorvos	283 - 2801	ND
Dimethoate	42 - 2774	ND
E-Fenpyroximate	267 - 2835	ND
Etofenprox	43 - 2749	ND
Etoxazole	272 - 2718	ND
Fenoxycarb	41 - 2722	ND
Fipronil	28 - 2719	ND
Flonicamid	44 - 2818	ND
Fludioxonil	279 - 2760	ND
Hexythiazox	40 - 2862	ND
Imazalil	282 - 2760	ND
Imidacloprid	39 - 2826	ND
Kresoxim-methyl	40 - 2752	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	286 - 2743	ND
Metaxyl	38 - 2758	ND
Methiocarb	38 - 2785	ND
Methomyl	40 - 2813	ND
MGK 264 1	180 - 1624	ND
MGK 264 2	121 - 1060	ND
Myclobutanil	38 - 2746	ND
Naled	50 - 2647	ND
Oxamyl	39 - 2825	ND
Paclobutrazol	44 - 2652	ND
Permethrin	274 - 2782	ND
Phosmet	39 - 2602	ND
Prophos	286 - 2745	ND
Propoxur	41 - 2694	ND
Pyridaben	275 - 2837	ND
Spinosad A	32 - 2062	ND
Spinosad D	64 - 682	ND
Spiromesifen	255 - 2820	ND
Spirotetramat	284 - 2765	ND
Spiroxamine 1	14 - 1080	ND
Spiroxamine 2	23 - 1623	ND
Tebuconazole	308 - 2714	ND
Thiacloprid	42 - 2838	ND
Thiamethoxam	41 - 2821	ND
Trifloxystrobin	45 - 2726	ND

Final Approval


 Sam Smith
 07Feb2025
 10:36:00 AM MST
 PREPARED BY / DATE


 Karen Winternheimer
 07Feb2025
 10:38:00 AM MST
 APPROVED BY / DATE

Organic Tincture- 450mg - Natural

Batch ID or Lot Number: 250305B	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 6
Reported: 03Feb2025	Started: 31Jan2025	Received: 30Jan2025	

Mycotoxins - Colorado Compliance

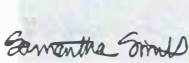
Test ID: T000297932

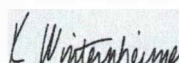
Methods: TM18 (UHPLC-QQQ

LCMS/MS): Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.63 - 119.61	ND	N/A
Aflatoxin B1	1.02 - 30.28	ND	
Aflatoxin B2	1.04 - 29.76	ND	
Aflatoxin G1	1.04 - 30.28	ND	
Aflatoxin G2	1.07 - 30.68	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Sam Smith
06Feb2025
09:14:00 AM MST
PREPARED BY / DATE


Karen Winternheimer
06Feb2025
09:16:00 AM MST
APPROVED BY / DATE

Heavy Metals - Colorado Compliance

Test ID: T000297930

Methods: TM19 (ICP-MS): Heavy

Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.25	ND	
Cadmium	0.04 - 4.27	ND	
Mercury	0.05 - 5.31	ND	
Lead	0.04 - 4.44	ND	

Final Approval


Judith Marquez
04Feb2025
01:35:00 PM MST
PREPARED BY / DATE


Sam Smith
04Feb2025
01:38:00 PM MST
APPROVED BY / DATE



Microbiology Analysis

PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

Method: QSP 6794 - Plating with 3M™ Petrifilm™

MICROBIOLOGY TEST RESULTS (PCR) - 03/17/2025 PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Salmonella spp.	Not Detected in 1g	ND	PASS
Shiga toxin-producing Escherichia coli	Not Detected in 1g	ND	PASS

MICROBIOLOGY TEST RESULTS (PLATING) - 03/17/2025 ND

COMPOUND	RESULT (cfu/g)
Coliforms	ND
Total Aerobic Bacteria	ND
Total Yeast and Mold	ND