

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Organic CBD Salve  
**PRODUCT STRENGTH:** 500mg / jar  
**BATCH:** 210201295  
**BEST BY DATE:** 10/26/2024  
**HEMP EXTRACT LOT:** 210201295

### Physical Attributes


Test	Method	Specification	Results
Color	Joy Internal	Light off white to yellow opaque, hint of green	PASS
Odor	Joy Internal	Lavender, eucalyptus, hint of beeswax and coconut	PASS
Appearance	Joy Internal	Firm, semi-waxy salve in container with screw lid	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and pressure seal is 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
<b>Potency - Total CBD</b>	HPLC-UV DAD	LOQ**: $\geq 1000$ mg / jar	<b>571mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: $<0.01\%$ THC (Broad Spectrum)	<b>Below LOQ</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 **CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^3$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): $\leq 1.5$ ppm† Cadmium (Cd): $\leq 0.5$ ppm Lead (Pb): $\leq 0.5$ ppm Mercury (Hg): $\leq 1.5$ ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins $<20$ ppb†† Afltoxin B1 $< 5$ ppb Ochratoxin $< 5$ ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS

\*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  11/22/2022  
 Name \_\_\_\_\_ Date \_\_\_\_\_

**SAMPLE NAME:** OS10Z500-210201295

**SAMPLE DETAIL**
**Batch Number:** 210201295  
**Sample ID:** 221117M057  
**Date of Sampling:** 11/17/2022  
**Time of Sampling:** 11:52 a.m.

**Date Collected:** 11/17/2022 **Date Received:** 11/17/2022  
**Batch Size:**  
**Sample Size:**  
**Unit Mass:** 25.9g

**CANNABINOID ANALYSIS -  
SUMMARY**


Scan QR code to verify authenticity of results.

**Total THC:** **Not Detected**
**Total CBD:** **571 mg/unit**

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

Total THC -11<sup>9</sup>-THC + (THCa (0.877))

Total CBD -CBD + (CBDa (0.877))

Sum of Cannabinoids -11<sup>9</sup>-THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + 11<sup>8</sup>-THC + CBL + CBN

Total Cannabinoids -(11<sup>9</sup>-THC+0.877\*THCa) + (CBD+0.877\*CBDa) + (CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) + (CBDV+0.877\*CBDVa) + 11<sup>8</sup>-THC + CBL + CBN

These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

**Sample Certification:** 6 CCR 1010-21 Colorado Wholesale Food, Industrial Hemp, and Shellfish Regulations; where applicable

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

**References:** limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)



LQC verified by: Michael Pham  
 Job Title: Senior Laboratory Analyst  
 Date: 11/19/2022



Approved by: Josh Wurzer  
 Job Title: President  
 Date: 11/19/2022




**CANNABINOID TEST RESULTS - 11/18/2022**

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 ( $\Delta^9$ -THC+0.877\*THCa)

**TOTAL CBD: 571 mg/unit**

Total CBD (CBD+0.877\*CBDa)

**TOTAL CANNABINOIDS: 705.630 mg/unit**

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

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.8224	22.047	2.2047
CBG	0.002 / 0.006	±0.0630	1.299	0.1299
CBDV	0.002 / 0.012	±0.0055	0.136	0.0136
CBL	0.003 / 0.010	±0.0007	0.020	0.0020
CBC	0.003 / 0.010	±0.0006	0.019	0.0019
$\Delta^9$ -THC	0.002 / 0.014	N/A	ND	ND
$\Delta^8$ -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
CBN	0.001 / 0.007	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
Total THC		N/A	ND	ND
<b>SUM OF CANNABINOIDS</b>			23.521 mg/g	2.3521%

**Unit Mass: 30 grams per Unit**


$\Delta^9$ -THC per Unit	ND
Total THC per Unit	ND
CBD per Unit	571 mg/unit
Total CBD per Unit	571 mg/unit
Sum of Cannabinoids per Unit	608 mg/unit
Total Cannabinoids per Unit	608 mg/unit


## OS10Z500

Batch ID or Lot Number: <b>210201295</b>	Test: <b>Mycotoxins</b>	Reported: <b>09Nov2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000226219	Started: 08Nov2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 01Nov2022	Status: Active

<b>Mycotoxins</b>	<b>Dynamic Range (ppb)</b>	<b>Result (ppb)</b>	<b>Notes</b>
Ochratoxin A	3.97 - 131.26	ND	N/A
Aflatoxin B1	0.94 - 32.61	ND	
Aflatoxin B2	0.94 - 32.84	ND	
Aflatoxin G1	1.01 - 33.00	ND	
Aflatoxin G2	1.04 - 33.39	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

## Final Approval

  
 Sam Smith  
 09Nov2022  
 07:30:00 AM MST  
 PREPARED BY / DATE

  
 Karen Winternheimer  
 09Nov2022  
 07:36:00 AM MST  
 APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/0a4b0a29-fffc-465f-94ad-a8f831f69c37>

**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  
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**OS10Z500**


Batch ID or Lot Number: <b>210201295</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 2 of 4
Reported: <b>02Nov2022</b>	Started: 02Nov2022	Received: 01Nov2022	

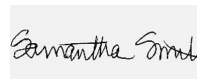
**Pesticides**

Test ID: T000226215  
Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)	Dynamic Range (ppb)	Result (ppb)	
Abamectin	347 - 2834	ND	Malathion	280 - 2714	ND
Acephate	40 - 2789	ND	Metalaxyl	41 - 2751	ND
Acetamiprid	40 - 2739	ND	Methiocarb	42 - 2712	ND
Azoxystrobin	40 - 2728	ND	Methomyl	37 - 2759	ND
Bifenazate	40 - 2740	ND	MGK 264 1	171 - 1610	ND
Boscalid	24 - 2691	ND	MGK 264 2	119 - 1152	ND
Carbaryl	41 - 2714	ND	Myclobutanil	32 - 2701	ND
Carbofuran	41 - 2728	ND	Naled	43 - 2724	ND
Chlorantraniliprole	38 - 2701	ND	Oxamyl	39 - 2754	ND
Chlorpyrifos	46 - 2777	ND	Paclobutrazol	41 - 2716	ND
Clofentezine	279 - 2740	ND	Permethrin	280 - 2784	ND
Diazinon	283 - 2727	ND	Phosmet	43 - 2726	ND
Dichlorvos	155 - 2662	ND	Prophos	294 - 2723	ND
Dimethoate	39 - 2722	ND	Propoxur	42 - 2717	ND
E-Fenpyroximate	284 - 2765	ND	Pyridaben	311 - 2726	ND
Etofenprox	41 - 2788	ND	Spinosad A	30 - 2236	ND
Etoazole	296 - 2775	ND	Spinosad D	46 - 503	ND
Fenoxycarb	34 - 2706	ND	Spiromesifen	264 - 2798	ND
Fipronil	36 - 2830	ND	Spirotetramat	289 - 2729	ND
Flonicamid	41 - 2750	ND	Spiroxamine 1	18 - 1170	ND
Fludioxonil	293 - 2728	ND	Spiroxamine 2	22 - 1529	ND
Hexythiazox	41 - 2789	ND	Tebuconazole	294 - 2713	ND
Imazalil	256 - 2752	ND	Thiacloprid	39 - 2731	ND
Imidacloprid	42 - 2718	ND	Thiamethoxam	38 - 2767	ND
Kresoxim-methyl	41 - 2792	ND	Trifloxystrobin	42 - 2729	ND

**Final Approval**

  
Karen Winterheimer  
04Nov2022  
08:49:00 AM MDT  
PREPARED BY / DATE


  
Sam Smith  
04Nov2022  
08:53:00 AM MDT  
APPROVED BY / DATE

**Heavy Metals -  
Colorado Compliance**

Test ID: T000226217  
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.17	ND	
Cadmium	0.04 - 4.21	ND	
Mercury	0.04 - 4.14	ND	
Lead	0.04 - 4.02	ND	

**Final Approval**

  
Sam Smith  
03Nov2022  
09:29:00 AM MDT  
PREPARED BY / DATE

  
Phillip Travisano  
03Nov2022  
10:09:00 AM MDT  
APPROVED BY / DATE

**OS1OZ500**

Batch ID or Lot Number: <b>210201295</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 4
Reported: <b>02Nov2022</b>	Started: 02Nov2022	Received: 01Nov2022	


**Residual Solvents -  
Colorado Compliance**

Test ID: T000226218


Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	88 - 1762	ND	
Butanes (Isobutane, n-Butane)	178 - 3563	ND	
Methanol	63 - 1264	ND	
Pentane	101 - 2014	ND	
Ethanol	98 - 1963	ND	
Acetone	102 - 2042	ND	
Isopropyl Alcohol	106 - 2125	ND	
Hexane	6 - 122	ND	
Ethyl Acetate	104 - 2088	ND	
Benzene	0.2 - 4.2	ND	
Heptanes	106 - 2129	ND	
Toluene	18 - 366	ND	
Xylenes (m,p,o-Xylenes)	136 - 2711	ND	

**Final Approval**

  
Sam Smith  
04Nov2022  
02:01:00 PM MDT

PREPARED BY / DATE

  
Karen Winternheimer  
04Nov2022  
02:07:00 PM MDT

APPROVED BY / DATE

**OS10Z500**


Batch ID or Lot Number: <b>210201295</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 4 of 4
Reported: <b>02Nov2022</b>	Started: 02Nov2022	Received: 01Nov2022	

**Microbial Contaminants - Colorado Compliance**

Test ID: T000226216  
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	None Detected	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	

**Final Approval**

  
Brett Hudson  
04Nov2022  
04:46:00 PM MDT

  
Brianne Maillot  
04Nov2022  
04:52:00 PM MDT

PREPARED BY / DATE

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/ba3dde64-96df-4f93-8b4b-a935d7848fa3>

**Definitions**  
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (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)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa \*(0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10<sup>2</sup> = 100 CFU, 10<sup>3</sup> = 1,000 CFU, 10<sup>4</sup> = 10,000 CFU, 10<sup>5</sup> = 100,000 CFU.

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. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details.](#)



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