

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Certified Organic CBD Tincture - Natural  
**PRODUCT STRENGTH:** 1350 mg  
**TINCTURE BATCH:** 21208A  
**BEST BY DATE:** 01/27/2023  
**HEMP EXTRACT LOT:** CO524-003

*\*Click on the links to view third-party reports\**

## Physical Attributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber	PASS
Odor	Internal	Characteristic - Olive and Hemp	PASS
Appearance	Internal	Golden to Amber oil in brown glass bottle with dropper.	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	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	1,350-1,687.5 mg CBD LOQ**: 10 ppm† (0.001%)	<b>1,473.9 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	<b>ND</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</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 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals Panel</b>	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>ND</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb† Aflatoxin B1 < 5 ppb Ochratoxin < 5ppb		Not Tested
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</b>	PASS

\* \*Level of Quantitation, † Parts Per  
 Million † Part Per Billion CFU/g=Colony  
 Forming Units per Gram  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified

*Kayla Kolber*  
Kayla Kolber

Quality Assurance Technician

08/03/2021

Date

5042 Technology Parkway, Fort Collins, CO 80528

Tel: (833) 569-7223 www.joyorganics.com

FO-106 Certificate of Analysis  
 Rev. 1.1 - Effective Date: 2/20/2020



C0524-003

## 7USC1639 Certificate of Analysis

man. date 5/24/2021

total cannabinoids **1575.4mg** per 30mL

THC† ND CBD† 1473.9mg terpenes

This Product Has Been Tested and Complies with 7USC1639o(1)

Stillwater Laboratories

certificate ID  
**1ET46**

order 10848

analysis date 5/25/2021 3:34:44 PM

test tag S1HYQ

sample wgt

## Inspection MSP-7.5.1.2

DESCRIPTION: Concentrate sample received in a client-labeled bottle, collected at dispensary/grow. 1 and sample tag S1HYQ

caryophyllene  
humulene  
terpinolene  
ocimene  
beta pinene  
alpha pinene  
limonene  
myrcene  
linalool

infused

## Potency per 30mL

	MSP-7.5.1.4	LOD	LOQ	error (95%CI k=2)
total CBD†	1473.9mg	0.07	0.20	±24.92mg
total CBD (CBD+CBDa)	1473.9mg	0.07	0.20	±24.92mg
tetrahydrocannabinolic acid (THCa)	ND	0.07	0.20	±0.20mg
Δ9-tetrahydrocannabinol (Δ9 THC)	ND	0.06	0.19	±0.19mg
Δ8-tetrahydrocannabinol (Δ8 THC)	ND	0.08	0.25	±0.25mg
tetrahydrocannabinavarin (THCv)	ND	0.07	0.21	±0.21mg
cannabidiolic acid (CBDa)	ND	0.06	0.17	±0.17mg
cannabidiol (CBD)	1473.9mg	0.07	0.20	±24.92mg
cannabidivarin (CBDv)	ND	0.07	0.20	±0.20mg
cannabigerolic acid (CBGa)	ND	0.06	0.18	±0.18mg
cannabigerol (CBG)	101.4mg	0.02	0.06	±1.76mg
cannabinol (CBN)	ND	0.04	0.11	±0.11mg
cannabichromene (CBC)	ND	0.07	0.20	±0.20mg

## Terpenes

MSP-7.5.1.6

MSP-7.5.1.6

† = decarbed NT = not tested NL = no limit, ND = not detected, LOD = detection limit, LOQ = quantitation limit

## Microbial

MSP-7.5.1.10

limit

## Metals

MSP-7.5.1.11

limit

## Pesticides

MSP-7.5.1.8

limit

## Pesticides

MSP-7.5.1.8

limit

E.coli	PASS	0CFU	Arsenic	PASS	1500 ppb	Abamectin	PASS	0.30 ppm	Fipronil	PASS	0.00 ppm
Salmonella sp.	PASS	0CFU	Cadmium	PASS	500 ppb	Acephate	PASS	5.00 ppm	Flonicamid	PASS	2.00 ppm
molds	PASS	10000CFU	Lead	PASS	500 ppb	Acequinocyl	PASS	4.00 ppm	Fludioxonil	PASS	30.00
Ochratoxin A	PASS	20 ppb	Mercury	PASS	300 ppb	Acetamiprid	PASS	5.00 ppm	Hexythiazox	PASS	2.00 ppm
Aflatoxin	PASS	20 ppb				Aldicarb	PASS	0.00 ppm	Imazalil	PASS	0.00 ppm
Solvents	MSP-7.5.1.7	limit	Pesticides	MSP-7.5.1.8	limit	Azoxystrobin	PASS	40.00	Imidacloprid	PASS	3.00 ppm
Acetone	PASS	5000 ppm	Permethrin	PASS	20.00 ppm	Bifenazate	PASS	5.00 ppm	Malathion	PASS	5.00 ppm
Acetonitrile	PASS	410 ppm	Phosmet	PASS	0.20 ppm	Bifenthrin	PASS	0.50 ppm	Metalaxyl	PASS	15.00
Benzene	PASS	0 ppm	Piperonylbutoxide	PASS	8.00 ppm	Boscalid	PASS	10.00	Methiocarb	PASS	0.00 ppm
Butane	PASS	5000 ppm	Prallethrin	PASS	0.40 ppm	Carbaryl	PASS	0.30 ppm	Methomyl	PASS	0.10 ppm
Chloroform	PASS	0 ppm	Propiconazole	PASS	20.00 ppm	Carbofuran	PASS	0.00 ppm	Methyl parathion	PASS	0.00 ppm
Cyclohexane	PASS	0 ppm	Propoxur	PASS	0.00 ppm	Chloanthraniliprole	PASS	40.00	Mevinphos	PASS	0.00 ppm
Ethanol	PASS	10000 ppm	Pyrethrin	PASS	1.00 ppm	Chlorfenapyr	PASS	0.00 ppm	Myclobutanil	PASS	9.00 ppm
Heptane	PASS	5000 ppm	Pyridaben	PASS	3.00 ppm	Chlorpyrifos	PASS	0.00 ppm	Naled	PASS	0.50 ppm
Hexane	PASS	290 ppm	Spinetoram	PASS	3.00 ppm	Clofentezine	PASS	0.50 ppm	Oxamyl	PASS	0.20 ppm
Isopropyl alcohol	PASS	5000 ppm	Spinosad	PASS	3.00 ppm	Coumaphos	PASS	0.00 ppm	Paclobutrazol	PASS	0.00 ppm
Methanol	PASS	3000 ppm	Spiromesifen	PASS	12.00 ppm	Cyfluthrin	PASS	1.00 ppm	Permethrin	PASS	20.00
Pentane	PASS	5000 ppm	Spirotetramat	PASS	13.00 ppm	Cypermethrin	PASS	1.00 ppm			
Propane	PASS	5000 ppm	Spiroxamine	PASS	0.00 ppm	Daminozide	PASS	0.00 ppm			
Toluene	PASS	890 ppm	Tebuconazole	PASS	2.00 ppm	Dichlorvos	PASS	0.00 ppm			
Xylenes	PASS	2170 ppm	Thiacloprid	PASS	0.10 ppm	Diazinon	PASS	0.20 ppm			
			Thiamethoxam	PASS	4.50 ppm	Dimethoate	PASS	0.00 ppm			
			Trifloxystrobin	PASS	30.00 ppm	Etoazoxole	PASS	1.50 ppm			
						Fenoxycarb	PASS	0.00 ppm			
						Fenpyroximate	PASS	2.00 ppm			

INSTRUMENTS  
 potency: HPLC (LC2030C-UV)  
 terpenes: GCMS (QP2020/HS20)  
 solvents: GCMS (QP2020/HS20)  
 pesticides: LCMSMS (LC8060)  
 mycotoxins: LCMSMS (LC8060)  
 microbial: qPCR (AriaMx) and plating  
 metals: ICPMS (ICPMS-2030)

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

Kyle Larson, MSc (Biology)  
Deputy Director

**Stillwater Laboratories Inc.**  
 MT License L00001, 7, 8  
 6073 US93N Suite 5  
 Olney MT 59927  
 406-881-2019

Printed  
5/28/2021 9:43 AM

The data in this report is the property of and is administered by Stillwater Labs. The format, layout, and security features of this report are copyrighted by Stillwater Laboratories Inc. © 2020



<https://customer.a2la.org/index.cfm?event=directory.detail&labPID=423635B2-5128-4C6F-871A-419DCF43B0D7>

**OTNAT1350**

Batch ID or Lot Number: <b>21208A</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>8/2/21</b>	
Matrix: Finished Product	Test ID: T000154680	Started: 7/29/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 07/29/2021 @ 10:23 AM	Sampler ID: N/A

## MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
<b>Total Aerobic Count*</b>	TM-26, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>3</sup> CFU/g	1.5x10 <sup>5</sup> CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
<b>Total Coliforms*</b>	TM-27, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>E. coli (STEC)</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
<b>Salmonella</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	

*Brianne Maillot*  
 Brianne Maillot  
 8/2/2021  
 11:03:00 AM

PREPARED BY / DATE

*Sarah Henning*  
 Sarah Henning  
 8/2/2021  
 4:34:00 PM

APPROVED BY / DATE

### Definitions

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

\* 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 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.



CDPHE Certified



Certificate #4329.02