



Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

DATE ISSUED 07/23/2022

SAMPLE NAME: cbdMD - PTN-CS-0500 - Paw Calming CBD Oil for Dogs 30mL Blueberry 500mg
Infused, Liquid Edible

CULTIVATOR / MANUFACTURER

Business Name:
License Number:
Address:

DISTRIBUTOR / TESTED FOR

Business Name: Open Book Extracts
License Number:
Address: 317 Lucy Garrett Road
Roxboro NC 27574



SAMPLE DETAIL

Batch Number: 20131P5.1
Sample ID: 220720N036

Date Collected: 07/20/2022
Date Received: 07/20/2022
Batch Size:
Sample Size:
Unit Mass: 30 milliliters per Unit
Serving Size:



Scan QR code to verify
authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 502.080 mg/unit

Sum of Cannabinoids: 512.880 mg/unit

Total Cannabinoids: 512.880 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 = Δ^9 -THC + (THCa (0.877))
Total CBD = CBD + (CBDa (0.877))
Sum of Cannabinoids = Δ^9 -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ^8 -THC + CBL + CBN
Total Cannabinoids = (Δ^9 -THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) + (CBDV+0.877*CBDVa) + Δ^8 -THC + CBL + CBN

Density: 0.9481 g/mL

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: <LOQ

Linalool <LOQ **α -Bisabolol** <LOQ

SAFETY ANALYSIS - SUMMARY

Δ^9 -THC per Unit: **PASS**

Mycotoxins: **PASS**

Residual Solvents: **PASS**

Heavy Metals: **PASS**

Microbiology (PCR): ND

Microbiology (Plating): ND

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. 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: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

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), too numerous to count >250 cfu/plate (TNCT), colony-forming unit (cfu)

Kelsey Cochran
LQC verified by: Kelsey Cochran
Date: 07/23/2022

Josh Wurzer
Approved by: Josh Wurzer, President
Date: 07/23/2022



CBDMD - PTN-CS-0500 - PAW CALMING CBD OIL FOR DOGS 30ML BLUEBERRY ... | DATE ISSUED 07/23/2022

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: 502.080 mg/unit

Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDS: 512.880 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCv) + (Total CBC) + (Total CBDV) + Δ^9 -THC + CBL + CBN

TOTAL CBG: 6.480 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: ND

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 07/22/2022

COMPOUND	LOD/LOQ (mg/mL)	MEASUREMENT UNCERTAINTY (mg/mL)	RESULT (mg/mL)	RESULT (%)
CBD	0.080 / 0.220	±0.6243	16.736	1.7652
CBG	0.040 / 0.120	±0.0105	0.216	0.0228
CBN	0.020 / 0.140	±0.0041	0.144	0.0152
Δ^9 -THC	0.040 / 0.280	N/A	ND	ND
Δ^8 -THC	0.20 / 0.40	N/A	ND	ND
THCa	0.020 / 0.100	N/A	ND	ND
THCV	0.040 / 0.240	N/A	ND	ND
THCVa	0.040 / 0.380	N/A	ND	ND
CBDa	0.020 / 0.520	N/A	ND	ND
CBDV	0.040 / 0.240	N/A	ND	ND
CBDVa	0.020 / 0.360	N/A	ND	ND
CBGa	0.040 / 0.140	N/A	ND	ND
CBL	0.060 / 0.200	N/A	ND	ND
CBC	0.060 / 0.200	N/A	ND	ND
CBCa	0.020 / 0.300	N/A	ND	ND
SUM OF CANNABINOIDS			17.096 mg/mL	1.8032%

Unit Mass: 30 milliliters per Unit

Δ^9 -THC per Unit	110 per-package limit	ND	PASS
Total THC per Unit		ND	
CBD per Unit		502.080 mg/unit	
Total CBD per Unit		502.080 mg/unit	
Sum of Cannabinoids per Unit		512.880 mg/unit	
Total Cannabinoids per Unit		512.880 mg/unit	

DENSITY TEST RESULT

0.9481 g/mL

Tested 07/22/2022

Method: QSP 7870 - Sample Preparation



Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

Method: OSP 1192 - Analysis of Terpenoids by GC-FID

1 Linalool

A monoterpene alcohol with a fragrance that can be described as spicy, waxy, citrus and floral. It is commonly used as an insecticide against cockroaches, flies, fleas and other insects. Found in basil, lavender, cinnamon, hops, mugwort, goldenrods...etc.

2 α -Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

TERPENOID TEST RESULTS - 07/22/2022

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Linalool	0.009 / 0.032	N/A	<LOQ	<LOQ
α -Bisabolol	0.008 / 0.026	N/A	<LOQ	<LOQ
α -Pinene	0.005 / 0.017	N/A	ND	ND
Camphene	0.005 / 0.015	N/A	ND	ND
Sabinene	0.004 / 0.014	N/A	ND	ND
β -Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α -Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ^3 -Carene	0.005 / 0.018	N/A	ND	ND
α -Terpinene	0.005 / 0.017	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Limonene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β -Ocimene	0.006 / 0.020	N/A	ND	ND
γ -Terpinene	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Fenchone	0.009 / 0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	N/A	ND	ND
Fenchol	0.010 / 0.034	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Isoborneol	0.004 / 0.012	N/A	ND	ND
Borneol	0.005 / 0.016	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
Terpineol	0.009 / 0.031	N/A	ND	ND
Nerol	0.003 / 0.011	N/A	ND	ND
Citronellol	0.003 / 0.010	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α -Cedrene	0.005 / 0.016	N/A	ND	ND
β -Caryophyllene	0.004 / 0.012	N/A	ND	ND
trans- β -Farnesene	0.008 / 0.025	N/A	ND	ND
α -Humulene	0.009 / 0.029	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Nerolidol	0.006 / 0.019	N/A	ND	ND
Caryophyllene Oxide	0.010 / 0.033	N/A	ND	ND
Guaiol	0.009 / 0.030	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
TOTAL TERPENOIDS			<LOQ	<LOQ




Mycotoxin Analysis

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS

MYCOTOXIN TEST RESULTS - 07/21/2022 ✔ PASS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	2.0 / 6.0		N/A	ND	
Aflatoxin B2	1.8 / 5.6		N/A	ND	
Aflatoxin G1	1.0 / 3.1		N/A	ND	
Aflatoxin G2	1.2 / 3.5		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS



Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

RESIDUAL SOLVENTS TEST RESULTS - 07/21/2022 ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Propane	10 / 20	5000	N/A	ND	PASS
n-Butane	10 / 50	5000	N/A	<LOQ	PASS
n-Pentane	20 / 50	5000	N/A	ND	PASS
n-Hexane	2 / 5	290	N/A	ND	PASS
n-Heptane	20 / 60	5000	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	10 / 40	5000	N/A	<LOQ	PASS
Acetone	20 / 50	5000	N/A	ND	PASS
Ethyl Ether	20 / 50	5000	N/A	ND	PASS
Ethylene Oxide	0.3 / 0.8	1	N/A	ND	PASS
Ethyl Acetate	20 / 60	5000	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Dichloromethane (Methylene Chloride)	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS



Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP 1160 - Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 07/23/2022 ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	3	N/A	ND	PASS



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

MICROBIOLOGY TEST RESULTS (PCR) - 07/23/2022 ND

COMPOUND	RESULT
<i>Listeria monocytogenes</i>	ND

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

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

MICROBIOLOGY TEST RESULTS (PLATING) - 07/23/2022 ND

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



Certificate of Analysis

Open Book Extracts

317 Lucy Garrett Road
Roxboro North Carolina 27574 United States

Sample Name:	cbdMD - PTN-CS-0500 - Paw Calming CBD Oil for Dogs	Eurofins Sample:	12000075
Project ID	OPEN_BO_E-20220726-0036	Receipt Date	27-Jul-2022
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	20131P5.1	LogIn Date	26-Jul-2022
Sample Serving Size	1 mL	Date Started	27-Jul-2022
		Sampled	Sample results apply as received
		Online Order	901-2022-E004664

Analysis	Result
Density by Gravimetric Analysis	
Density	0.945 g/mL
Determination of Melatonin by UPLC	
Melatonin	2.32 mg/Serving Size

Method References	Testing Location
Density by Gravimetric Analysis (SPGP_S)	Food Integrity Innovation-Brea 2951 Saturn Street, Unit C Brea, CA 92821 USA
NIST Handbook 133 - Checking the Net Contents of Packaged Goods, 2015 Edition (Modified)	
Determination of Melatonin by UPLC (OC_MLTON_S)	Food Integrity Innovation-Brea 2951 Saturn Street, Unit C Brea, CA 92821 USA
Internally Developed Method	

Testing Location(s)	Released on Behalf of Eurofins by
Food Integrity Innovation-Brea	Jason Mulligan - President Eurofins Botanical Testing Brea
Eurofins Food Chemistry Testing US, Inc. 2951 Saturn Street Unit C Brea CA 92821 800-675-8375	

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins. Measurement uncertainty for individual analyses can be obtained upon request.