

SAMPLE NAME: cbdMD PM 60 count 1000 mg Sleep Softgels

Infused, Hemp Infused

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR / TESTED FOR

Business Name: cbdMD

License Number:

Address:

SAMPLE DETAIL

Batch Number: 11731C8

Sample ID: 210706R005

Date Collected: 07/06/2021

Date Received: 07/06/2021

Batch Size:

Sample Size: 1.0 units

Unit Mass: 0.6013 grams per Unit

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 20.166 mg/unit

Sum of Cannabinoids: 20.605 mg/unit

Total Cannabinoids: 20.605 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 = $\Delta 9\text{THC} + (\text{THCa} \times 0.877)$

Total CBD = $\text{CBD} + (\text{CBDA} \times 0.877)$

Sum of Cannabinoids = $\Delta 9\text{THC} + \text{THCa} + \text{CBD} + \text{CBDA} + \text{CBG} + \text{CBGa} + \text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Total Cannabinoids = $(\Delta 9\text{THC} + 0.877 \times \text{THCa}) + (\text{CBD} + 0.877 \times \text{CBDA}) + (\text{CBG} + 0.877 \times \text{CBGa}) + (\text{THCV} + 0.877 \times \text{THCVa}) + (\text{CBC} + 0.877 \times \text{CBCa}) + (\text{CBDV} + 0.877 \times \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.0749%

● Limonene 0.749 mg/g

SAFETY ANALYSIS - SUMMARY

Pesticides: ND

Mycotoxins: ND

Residual Solvents: DETECTED

Heavy Metals: ND

Microbiology (PCR): ND

Microbiology (Plating): ND

For quality assurance purposes. Not a Pre-Harvest 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: Action Limits used in this report are a compilation of guidance from state regulatory agencies in all states. Action limits for required tests are either state-specific, or the lower of any conflicting state regulations based upon the panel requested.

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 (TNTC), colony-forming unit (cfu)

LQC verified by: Carmen Stackhouse
Date: 07/12/2021

Approved by: Josh Wurzer, President
Date: 07/12/2021

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 ($\Delta 9$ THC + $0.877 \times \text{THCa}$)

TOTAL CBD: **20.166 mg/unit**

Total CBD ($\text{CBD} + 0.877 \times \text{CBDA}$)

TOTAL CANNABINOIDS: **20.605 mg/unit**

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

TOTAL CBG: **0.259 mg/unit**

Total CBG ($\text{CBG} + 0.877 \times \text{CBGa}$)

TOTAL THCV: **ND**

Total THCV ($\text{THCV} + 0.877 \times \text{THCVa}$)

TOTAL CBC: **ND**

Total CBC ($\text{CBC} + 0.877 \times \text{CBCa}$)

TOTAL CBDV: **0.076 mg/unit**

Total CBDV ($\text{CBDV} + 0.877 \times \text{CBDVa}$)

CANNABINOID TEST RESULTS - 07/08/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	± 1.6065	33.538	3.3538
CBG	0.002 / 0.006	± 0.0268	0.431	0.0431
CBN	0.001 / 0.007	± 0.0064	0.173	0.0173
CBDV	0.002 / 0.012	± 0.0066	0.126	0.0126
$\Delta 9$ THC	0.002 / 0.014	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
$\Delta 8$ THC	0.01 / 0.02	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
CBC	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
SUM OF CANNABINOIDS			34.268 mg/g	3.4268%

Unit Mass: 0.6013 grams per Unit

$\Delta 9$ THC per Unit	ND
Total THC per Unit	ND
CBD per Unit	20.166 mg/unit
Total CBD per Unit	20.166 mg/unit
Sum of Cannabinoids per Unit	20.605 mg/unit
Total Cannabinoids per Unit	20.605 mg/unit





Terpenoid Analysis

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

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

TERPENOID TEST RESULTS - 07/08/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Limonene	0.005 / 0.016	±0.0107	0.749	0.0749
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
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
Eucalyptol	0.006 / 0.018	N/A	ND	ND
Ocimene	0.011 / 0.038	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
Linalool	0.009 / 0.032	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	0.016 / 0.055	N/A	ND	ND
Nerol	0.003 / 0.011	N/A	ND	ND
Citronellol	0.003 / 0.010	N/A	ND	ND
R-(+)-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	0.009 / 0.028	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
α Bisabolol	0.008 / 0.026	N/A	ND	ND
TOTAL TERPENOIDS			0.749 mg/g	0.0749%





Pesticide Analysis

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

*GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

PESTICIDE TEST RESULTS - 07/08/2021 ND

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Abamectin	0.03 / 0.10	0.3	N/A	ND
Acephate	0.02 / 0.07	5	N/A	ND
Acequinocyl	0.02 / 0.07	4	N/A	ND
Acetamiprid	0.02 / 0.05	5	N/A	ND
Aldicarb	0.03 / 0.08	≥ LOD	N/A	ND
Azoxystrobin	0.02 / 0.07	40	N/A	ND
Bifenazate	0.01 / 0.04	5	N/A	ND
Bifenthrin	0.02 / 0.05	0.5	N/A	ND
Boscalid	0.03 / 0.09	10	N/A	ND
Captan	0.19 / 0.57	5	N/A	ND
Carbaryl	0.02 / 0.06	0.5	N/A	ND
Carbofuran	0.02 / 0.05	≥ LOD	N/A	ND
Chlorantraniliprole	0.04 / 0.12	40	N/A	ND
Chlordane*	0.03 / 0.08	≥ LOD	N/A	ND
Chlorfenapyr*	0.03 / 0.10	≥ LOD	N/A	ND
Chlorpyrifos	0.02 / 0.06	≥ LOD	N/A	ND
Clofentezine	0.03 / 0.09	0.5	N/A	ND
Coumaphos	0.02 / 0.07	≥ LOD	N/A	ND
Cyfluthrin	0.12 / 0.38	1	N/A	ND
Cypermethrin	0.11 / 0.32	1	N/A	ND
Daminozide	0.02 / 0.07	≥ LOD	N/A	ND
DDVP (Dichlorvos)	0.03 / 0.09	≥ LOD	N/A	ND
Diazinon	0.02 / 0.05	0.2	N/A	ND
Dimethoate	0.03 / 0.08	≥ LOD	N/A	ND
Dimethomorph	0.03 / 0.09	20	N/A	ND
Ethoprop(hos)	0.03 / 0.10	≥ LOD	N/A	ND
Etofenprox	0.02 / 0.06	≥ LOD	N/A	ND
Etoxazole	0.02 / 0.06	1.5	N/A	ND
Fenhexamid	0.03 / 0.09	10	N/A	ND
Fenoxycarb	0.03 / 0.08	≥ LOD	N/A	ND
Fenpyroximate	0.02 / 0.06	2	N/A	ND
Fipronil	0.03 / 0.08	≥ LOD	N/A	ND
Flonicamid	0.03 / 0.10	2	N/A	ND
Fludioxonil	0.03 / 0.10	30	N/A	ND
Hexythiazox	0.02 / 0.07	2	N/A	ND
Imazalil	0.02 / 0.06	≥ LOD	N/A	ND
Imidacloprid	0.04 / 0.11	3	N/A	ND
Kresoxim-methyl	0.02 / 0.07	1	N/A	ND
Malathion	0.03 / 0.09	5	N/A	ND
Metalaxyl	0.02 / 0.07	15	N/A	ND
Methiocarb	0.02 / 0.07	≥ LOD	N/A	ND

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Pesticide Analysis *Continued*

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

*GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

PESTICIDE TEST RESULTS - 07/08/2021 *continued* ND

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Methomyl	0.03 / 0.10	0.1	N/A	ND
Methyl parathion	0.03 / 0.10	≥ LOD	N/A	ND
Mevinphos	0.03 / 0.09	≥ LOD	N/A	ND
Myclobutanil	0.03 / 0.09	9	N/A	ND
Naled	0.02 / 0.07	0.5	N/A	ND
Oxamyl	0.04 / 0.11	0.2	N/A	ND
Paclobutrazol	0.02 / 0.05	≥ LOD	N/A	ND
Pentachloronitrobenzene*	0.03 / 0.09	0.2	N/A	ND
Permethrin	0.04 / 0.12	20	N/A	ND
Phosmet	0.03 / 0.10	0.2	N/A	ND
Piperonylbutoxide	0.02 / 0.07	8	N/A	ND
Prallethrin	0.03 / 0.08	0.4	N/A	ND
Propiconazole	0.02 / 0.07	20	N/A	ND
Propoxur	0.03 / 0.09	≥ LOD	N/A	ND
Pyrethrins	0.04 / 0.12	1	N/A	ND
Pyridaben	0.02 / 0.07	3	N/A	ND
Spinetoram	0.02 / 0.07	3	N/A	ND
Spinosad	0.02 / 0.07	3	N/A	ND
Spiromesifen	0.02 / 0.05	12	N/A	ND
Spirotetramat	0.02 / 0.06	13	N/A	ND
Spiroxamine	0.03 / 0.08	≥ LOD	N/A	ND
Tebuconazole	0.02 / 0.07	2	N/A	ND
Thiacloprid	0.03 / 0.10	≥ LOD	N/A	ND
Thiamethoxam	0.03 / 0.10	4.5	N/A	ND
Trifloxystrobin	0.03 / 0.08	30	N/A	ND

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 - 07/07/2021 ND

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)
Aflatoxin B1	2.0 / 6.0	5	N/A	ND
Aflatoxin B2	1.8 / 5.6	20	N/A	ND
Aflatoxin G1	1.0 / 3.1	20	N/A	ND
Aflatoxin G2	1.2 / 3.5	20	N/A	ND
Total Aflatoxin		20		ND
Ochratoxin A	6.3 / 19.2	5	N/A	ND





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 - 07/08/2021 DETECTED

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



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 - 07/07/2021 ND

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	0.42	N/A	ND
Cadmium	0.02 / 0.05	0.27	N/A	ND
Lead	0.04 / 0.1	0.5	N/A	ND
Mercury	0.002 / 0.01	0.4	N/A	ND



**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) - 07/11/2021 ND

COMPOUND	ACTION LIMIT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Detect	ND
<i>Salmonella</i> spp.	Detect	ND
<i>Listeria monocytogenes</i>	Detect	ND

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

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

MICROBIOLOGY TEST RESULTS (PLATING) - 07/11/2021 ND

COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)
Total Aerobic Bacteria	100	ND
Total Yeast and Mold	10	ND

