

SAMPLE NAME: cbdMD PM 30 count 1500 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: 12091W5

Sample ID: 210901R003

Date Collected: 09/01/2021

Date Received: 09/01/2021

Batch Size:

Sample Size: 1.0 units

Unit Mass: 18.456 grams per Unit

Serving Size: 0.6152 grams per Serving



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 1412.696 mg/unit

Sum of Cannabinoids: 1836.372 mg/unit

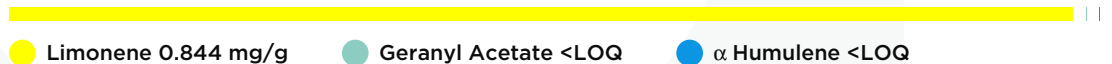
Total Cannabinoids: 1836.372 mg/unit

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

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.0844%



SAFETY ANALYSIS - SUMMARY

Pesticides: ND

Mycotoxins: ND

Residual Solvents: ND

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)

Jackson W-H *Josh Wurzer*
 LQC verified by: Jackson Waite-Himmelwright Approved by: Josh Wurzer, President
 Date: 09/08/2021 Date: 09/08/2021



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*THCa)

TOTAL CBD: 1412.696 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 1836.372 mg/unit

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

TOTAL CBG: 48.023 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: 3.211 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 09/04/2021

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|----------------------------|----------------|--------------------------------|--------------------|---------------|
| CBD | 0.004 / 0.011 | ±3.6665 | 76.544 | 7.6544 |
| CBN | 0.001 / 0.007 | ±0.7446 | 20.180 | 2.0180 |
| CBG | 0.002 / 0.006 | ±0.1618 | 2.602 | 0.2602 |
| CBDV | 0.002 / 0.012 | ±0.0091 | 0.174 | 0.0174 |
| $\Delta 9$ 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 |
| 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 | | | 99.500 mg/g | 9.950% |

Unit Mass: 18.456 grams per Unit / Serving Size: 0.6152 grams per Serving

| | |
|---------------------------------|-------------------|
| $\Delta 9$ THC per Unit | ND |
| $\Delta 9$ THC per Serving | ND |
| Total THC per Unit | ND |
| Total THC per Serving | ND |
| CBD per Unit | 1412.696 mg/unit |
| CBD per Serving | 47.090 mg/serving |
| Total CBD per Unit | 1412.696 mg/unit |
| Total CBD per Serving | 47.090 mg/serving |
| Sum of Cannabinoids per Unit | 1836.372 mg/unit |
| Sum of Cannabinoids per Serving | 61.212 mg/serving |
| Total Cannabinoids per Unit | 1836.372 mg/unit |
| Total Cannabinoids per Serving | 61.213 mg/serving |





Terpenoid Analysis

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

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

1 Limonene

A monoterpene with a fragrance that can be described as orangey, citrusy, sweet and tart. It is most commonly found in nature as D-Limonene and is a primary contributor to the distinct scent of orange peels, from which it is commonly derived. Found in numerous pines, red maple, silver maple, aspens, cottonwoods, hemlocks, sumac, cedar, junipers...etc.

2 Geranyl Acetate

A monoterpene ester with a fragrance that can be described as floral, fruity, waxy and herbal. Found in lemongrass, palmarosa, geranium, saffras, carrot, coriander, bitter orange, Camden woollybutt...etc.

3 α Humulene

Also known as α -caryophyllene, it is an isomer of the sesquiterpene β -Caryophyllene which frequently occurs in nature with many aromatic plants across the globe. It has a fragrance that can be described as earthy or musky with spicy undertones. Found in hops, forskohlii, skullcaps, basil, nutmeg, cloves, sage, cotton, tamarind, black pepper, guava, Scotch pine...etc.

TERPENOID TEST RESULTS - 09/06/2021

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|---------------------------|----------------|--------------------------------|-------------------|----------------|
| Limonene | 0.005 / 0.016 | ± 0.0121 | 0.844 | 0.0844 |
| Geranyl Acetate | 0.004 / 0.014 | N/A | <LOQ | <LOQ |
| α Humulene | 0.009 / 0.029 | 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 |
| 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 |
| 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 |
| 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 | | | 0.844 mg/g | 0.0844% |





Pesticide Analysis

PESTICIDE TEST RESULTS - 09/05/2021 ND

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

| 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 - 09/05/2021 *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 - 09/05/2021 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 - 09/05/2021 ND

| 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 | ND |
| 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 | ND |
| 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 - 09/05/2021 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) - 09/08/2021 ND

| COMPOUND | ACTION LIMIT | RESULT |
|---|--------------------|--------|
| Shiga toxin-producing <i>Escherichia coli</i> | Not Detected in 1g | ND |
| <i>Salmonella</i> spp. | Not Detected in 1g | 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) - 09/08/2021 ND

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

NOTES

Sample Certification: Updated to meet California Code of Regulations Title 16

