

SAMPLE NAME: cbdMD 60 count 1500 mg Softgel

Infused, Non-Inhalable

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR

Business Name: cbdMD

License Number:

Address:

SAMPLE DETAIL

Batch Number: 02461C5

Sample ID: 200909M021

Date Collected: 09/09/2020

Date Received: 09/09/2020

Batch Size:

Sample Size: 1.0 Unit(s)

Unit Mass: 0.6312 Grams per Unit

Serving Size: 0.6312 Grams per Serving



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 26.515 mg/unit

Sum of Cannabinoids: 26.749 mg/unit

Total Cannabinoids: 26.749 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 = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDA}) +$

$(\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) +$

$(\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

$\Delta 9\text{THC}$ per Unit: ✔ PASS

Foreign Material: NT

Water Activity: NT

Vitamin E Acetate: NT

Pesticides: ✔ PASS

Mycotoxins: ✔ PASS

Residual Solvents: ✔ PASS

Heavy Metals: ✔ PASS

Microbial Impurities (PCR): ✔ PASS

Microbial Impurities (Plating): ND

TERPENOID ANALYSIS - SUMMARY

35 TESTED, TOP 3 HIGHLIGHTED

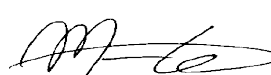
● **Limonene 0.82 mg/g**


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: 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 (TNTC), colony-forming unit (cfu)


LQC verified by: Maria Garcia
Date: 09/12/2020


Approved by: Josh Wurzer, President
Date: 09/12/2020



CANNABINOID TEST RESULTS - 09/11/2020

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: 26.515 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 26.749 mg/unit

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

TOTAL CBG: 0.139 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: 0.056 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|----------------------------|----------------|--------------------------------|--------------------|----------------|
| CBD | 0.004 / 0.011 | ± 2.0122 | 42.008 | 4.2008 |
| CBG | 0.002 / 0.005 | ± 0.0137 | 0.220 | 0.0220 |
| CBDV | 0.002 / 0.007 | ± 0.0046 | 0.088 | 0.0088 |
| CBN | 0.001 / 0.004 | ± 0.0023 | 0.062 | 0.0062 |
| $\Delta 9$ THC | 0.002 / 0.005 | N/A | ND | ND |
| $\Delta 8$ THC | 0.01 / 0.02 | N/A | ND | ND |
| THCa | 0.001 / 0.002 | N/A | ND | ND |
| THCV | 0.002 / 0.008 | N/A | ND | ND |
| THCVa | 0.002 / 0.005 | N/A | ND | ND |
| CBDA | 0.001 / 0.003 | N/A | ND | ND |
| CBDVa | 0.001 / 0.003 | N/A | ND | ND |
| CBGa | 0.002 / 0.006 | N/A | ND | ND |
| CBL | 0.003 / 0.008 | N/A | ND | ND |
| CBC | 0.003 / 0.010 | N/A | ND | ND |
| CBCa | 0.001 / 0.004 | N/A | ND | ND |
| SUM OF CANNABINOIDS | | | 42.378 mg/g | 4.2378% |

Unit Mass: 0.6312 Grams per Unit / Serving Size: 0.6312 Grams per Serving

| | | | |
|---------------------------------|--------------------------|-------------------|------|
| $\Delta 9$ THC per Unit | 1000.0 per-package limit | ND | PASS |
| $\Delta 9$ THC per Serving | | ND | |
| Total THC per Unit | | ND | |
| Total THC per Serving | | ND | |
| CBD per Unit | | 26.515 mg/unit | |
| CBD per Serving | | 26.515 mg/serving | |
| Total CBD per Unit | | 26.515 mg/unit | |
| Total CBD per Serving | | 26.515 mg/serving | |
| Sum of Cannabinoids per Unit | | 26.749 mg/unit | |
| Sum of Cannabinoids per Serving | | 26.749 mg/serving | |
| Total Cannabinoids per Unit | | 26.749 mg/unit | |
| Total Cannabinoids per Serving | | 26.749 mg/serving | |

MOISTURE TEST RESULT

| |
|------------|
| Not Tested |
|------------|

DENSITY TEST RESULT

| |
|------------|
| Not Tested |
|------------|

VISCOSITY TEST RESULT

| |
|------------|
| Not Tested |
|------------|





Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

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.

TERPENOID TEST RESULTS - 09/11/2020

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|-------------------------|----------------|--------------------------------|------------------|---------------|
| Limonene | 0.02 / 0.05 | ±0.030 | 0.82 | 0.082 |
| α Pinene | 0.03 / 0.09 | N/A | ND | ND |
| Camphene | 0.04 / 0.11 | N/A | ND | ND |
| Sabinene | 0.04 / 0.11 | N/A | ND | ND |
| β Pinene | 0.04 / 0.11 | N/A | ND | ND |
| Myrcene | 0.04 / 0.11 | N/A | ND | ND |
| α Phellandrene | 0.05 / 0.1 | N/A | ND | ND |
| 3 Carene | 0.04 / 0.1 | N/A | ND | ND |
| α Terpinene | 0.04 / 0.1 | N/A | ND | ND |
| Eucalyptol | 0.03 / 0.08 | N/A | ND | ND |
| Ocimene | 0.03 / 0.09 | N/A | ND | ND |
| γ Terpinene | 0.04 / 0.1 | N/A | ND | ND |
| Sabinene Hydrate | 0.02 / 0.07 | N/A | ND | ND |
| Fenchone | 0.04 / 0.12 | N/A | ND | ND |
| Terpinolene | 0.03 / 0.09 | N/A | ND | ND |
| Linalool | 0.03 / 0.08 | N/A | ND | ND |
| Fenchol | 0.03 / 0.09 | N/A | ND | ND |
| (-)-Isopulegol | 0.02 / 0.05 | N/A | ND | ND |
| Camphor | 0.1 / 0.2 | N/A | ND | ND |
| Isoborneol | 0.04 / 0.1 | N/A | ND | ND |
| Borneol | 0.1 / 0.2 | N/A | ND | ND |
| Menthol | 0.03 / 0.09 | N/A | ND | ND |
| Terpineol | 0.02 / 0.07 | N/A | ND | ND |
| Nerol | 0.03 / 0.09 | N/A | ND | ND |
| R-(+)-Pulegone | 0.03 / 0.09 | N/A | ND | ND |
| Geraniol | 0.02 / 0.07 | N/A | ND | ND |
| Geranyl Acetate | 0.02 / 0.06 | N/A | ND | ND |
| α Cedrene | 0.02 / 0.07 | N/A | ND | ND |
| β Caryophyllene | 0.02 / 0.07 | N/A | ND | ND |
| α Humulene | 0.02 / 0.05 | N/A | ND | ND |
| Valencene | 0.01 / 0.03 | N/A | ND | ND |
| Nerolidol | 0.3 / 0.8 | N/A | ND | ND |
| Caryophyllene Oxide | 0.04 / 0.11 | N/A | ND | ND |
| Guaiol | 0.03 / 0.09 | N/A | ND | ND |
| Cedrol | 0.04 / 0.11 | N/A | ND | ND |
| α Bisabolol | 0.02 / 0.07 | N/A | ND | ND |
| TOTAL TERPENOIDS | | | 0.82 mg/g | 0.082% |



 **Pesticide Analysis**

CATEGORY 1 PESTICIDE TEST RESULTS - 09/11/2020  **PASS**

CATEGORY 1 AND 2 PESTICIDES

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) | RESULT |
|-------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Aldicarb | 0.03 / 0.09 | ≥ LOD | N/A | ND | PASS |
| Carbofuran | 0.01 / 0.04 | ≥ LOD | N/A | ND | PASS |
| Chlordane* | 0.03 / 0.08 | ≥ LOD | N/A | ND | PASS |
| Chlorfenapyr* | 0.03 / 0.10 | ≥ LOD | N/A | ND | PASS |
| Chlorpyrifos | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Coumaphos | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Daminozide | 0.03 / 0.10 | ≥ LOD | N/A | ND | PASS |
| DDVP (Dichlorvos) | 0.02 / 0.07 | ≥ LOD | N/A | ND | PASS |
| Dimethoate | 0.02 / 0.07 | ≥ LOD | N/A | ND | PASS |
| Ethoprop(hos) | 0.03 / 0.08 | ≥ LOD | N/A | ND | PASS |
| Etofenprox | 0.02 / 0.05 | ≥ LOD | N/A | ND | PASS |
| Fenoxycarb | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Fipronil | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Imazalil | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Methiocarb | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Methyl parathion | 0.03 / 0.10 | ≥ LOD | N/A | ND | PASS |
| Mevinphos | 0.03 / 0.09 | ≥ LOD | N/A | ND | PASS |
| Paclobutrazol | 0.02 / 0.05 | ≥ LOD | N/A | ND | PASS |
| Propoxur | 0.02 / 0.06 | ≥ LOD | N/A | ND | PASS |
| Spiroxamine | 0.02 / 0.05 | ≥ LOD | N/A | ND | PASS |
| Thiacloprid | 0.03 / 0.07 | ≥ LOD | N/A | ND | PASS |

CATEGORY 2 PESTICIDE TEST RESULTS - 09/11/2020  **PASS**

| | | | | | |
|---------------------|-------------|-----|-----|----|------|
| Abamectin | 0.03 / 0.10 | 0.3 | N/A | ND | PASS |
| Acephate | 0.01 / 0.04 | 5 | N/A | ND | PASS |
| Acequinocyl | 0.02 / 0.05 | 4 | N/A | ND | PASS |
| Acetamiprid | 0.02 / 0.05 | 5 | N/A | ND | PASS |
| Azoxystrobin | 0.01 / 0.04 | 40 | N/A | ND | PASS |
| Bifenazate | 0.01 / 0.02 | 5 | N/A | ND | PASS |
| Bifenthrin | 0.01 / 0.02 | 0.5 | N/A | ND | PASS |
| Boscalid | 0.02 / 0.06 | 10 | N/A | ND | PASS |
| Captan | 0.2 / 0.5 | 5 | N/A | ND | PASS |
| Carbaryl | 0.01 / 0.02 | 0.5 | N/A | ND | PASS |
| Chlorantraniliprole | 0.01 / 0.03 | 40 | N/A | ND | PASS |

Continued on next page





Pesticide Analysis *Continued*

CATEGORY 2 PESTICIDE TEST RESULTS - 09/11/2020 *continued* ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

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) | RESULT |
|--------------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Clofentezine | 0.02 / 0.06 | 0.5 | N/A | ND | PASS |
| Cyfluthrin | 0.1 / 0.4 | 1 | N/A | ND | PASS |
| Cypermethrin | 0.1 / 0.3 | 1 | N/A | ND | PASS |
| Diazinon | 0.01 / 0.04 | 0.2 | N/A | ND | PASS |
| Dimethomorph | 0.01 / 0.03 | 20 | N/A | ND | PASS |
| Etoxazole | 0.010 / 0.028 | 1.5 | N/A | ND | PASS |
| Fenhexamid | 0.02 / 0.1 | 10 | N/A | ND | PASS |
| Fenpyroximate | 0.03 / 0.08 | 2 | N/A | ND | PASS |
| Flonicamid | 0.01 / 0.04 | 2 | N/A | ND | PASS |
| Fludioxonil | 0.03 / 0.08 | 30 | N/A | ND | PASS |
| Hexythiazox | 0.01 / 0.04 | 2 | N/A | ND | PASS |
| Imidacloprid | 0.01 / 0.04 | 3 | N/A | ND | PASS |
| Kresoxim-methyl | 0.02 / 0.07 | 1 | N/A | ND | PASS |
| Malathion | 0.02 / 0.05 | 5 | N/A | ND | PASS |
| Metalaxyl | 0.02 / 0.06 | 15 | N/A | ND | PASS |
| Methomyl | 0.03 / 0.1 | 0.1 | N/A | ND | PASS |
| Myclobutanil | 0.03 / 0.1 | 9 | N/A | ND | PASS |
| Naled | 0.03 / 0.1 | 0.5 | N/A | ND | PASS |
| Oxamyl | 0.02 / 0.06 | 0.2 | N/A | ND | PASS |
| Pentachloronitrobenzene* | 0.03 / 0.09 | 0.2 | N/A | ND | PASS |
| Permethrin | 0.03 / 0.09 | 20 | N/A | ND | PASS |
| Phosmet | 0.03 / 0.10 | 0.2 | N/A | ND | PASS |
| Piperonylbutoxide | 0.003 / 0.009 | 8 | N/A | ND | PASS |
| Prallethrin | 0.03 / 0.08 | 0.4 | N/A | ND | PASS |
| Propiconazole | 0.01 / 0.03 | 20 | N/A | ND | PASS |
| Pyrethrins | 0.03 / 0.08 | 1 | N/A | ND | PASS |
| Pyridaben | 0.006 / 0.019 | 3 | N/A | ND | PASS |
| Spinetoram | 0.02 / 0.07 | 3 | N/A | ND | PASS |
| Spinosad | 0.02 / 0.06 | 3 | N/A | ND | PASS |
| Spiromesifen | 0.02 / 0.05 | 12 | N/A | ND | PASS |
| Spirotetramat | 0.01 / 0.02 | 13 | N/A | ND | PASS |
| Tebuconazole | 0.02 / 0.07 | 2 | N/A | ND | PASS |
| Thiamethoxam | 0.03 / 0.08 | 4.5 | N/A | ND | PASS |
| Trifloxystrobin | 0.01 / 0.03 | 30 | N/A | ND | PASS |





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 - 09/11/2020 ✔ PASS

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



Residual Solvents Analysis

CATEGORY 1 AND 2 RESIDUAL SOLVENTS

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

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

CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 09/12/2020 ✔ PASS

| COMPOUND | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|--------------------|----------------|---------------------|--------------------------------|---------------|--------|
| 1,2-Dichloroethane | 0.05 / 0.1 | 1 | N/A | ND | PASS |
| Benzene | 0.03 / 0.09 | 1 | N/A | ND | PASS |
| Chloroform | 0.1 / 0.2 | 1 | N/A | ND | PASS |
| Ethylene Oxide | 0.1 / 0.4 | 1 | N/A | ND | PASS |
| Methylene chloride | 0.3 / 0.9 | 1 | N/A | ND | PASS |
| Trichloroethylene | 0.1 / 0.3 | 1 | N/A | ND | PASS |

CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 09/12/2020 ✔ PASS

| | | | | | |
|-------------------|----------|------|-----|----|------|
| Acetone | 20 / 50 | 5000 | N/A | ND | PASS |
| Acetonitrile | 2 / 7 | 410 | N/A | ND | PASS |
| Butane | 10 / 50 | 5000 | N/A | ND | PASS |
| Ethanol | 20 / 50 | 5000 | N/A | ND | PASS |
| Ethyl acetate | 20 / 60 | 5000 | N/A | ND | PASS |
| Ethyl ether | 20 / 50 | 5000 | N/A | ND | PASS |
| Heptane | 20 / 60 | 5000 | N/A | ND | PASS |
| Hexane | 2 / 5 | 290 | N/A | ND | PASS |
| Isopropyl Alcohol | 10 / 40 | 5000 | N/A | ND | PASS |
| Methanol | 50 / 200 | 3000 | N/A | ND | PASS |
| Pentane | 20 / 50 | 5000 | N/A | ND | PASS |
| Propane | 10 / 20 | 5000 | N/A | ND | PASS |
| Toluene | 7 / 21 | 890 | N/A | ND | PASS |
| Total Xylenes | 50 / 160 | 2170 | 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 - 09/10/2020 ✔ PASS

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

 **Microbial Impurities Analysis**

PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

Method: QSP - (1221) Analysis of Microbial Impurities

MICROBIAL IMPURITIES TEST RESULTS (PCR) - 09/12/2020 ✔ PASS

| COMPOUND | ACTION LIMIT | RESULT | RESULT |
|---|--------------|--------|--------|
| Shiga toxin-producing <i>Escherichia coli</i> | Detect | ND | PASS |
| <i>Salmonella</i> spp. | Detect | ND | PASS |
| <i>Aspergillus fumigatus</i> | | NT | |
| <i>Aspergillus flavus</i> | | NT | |
| <i>Aspergillus niger</i> | | NT | |
| <i>Aspergillus terreus</i> | | NT | |

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbial impurities.

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

MICROBIAL IMPURITIES TEST RESULTS (PLATING) - 09/12/2020 **ND**

| COMPOUND | RESULT (cfu/g) |
|----------------------|----------------|
| Aerobic Plate Count | ND |
| Total Yeast and Mold | ND |

