

SAMPLE NAME: cbdMD Freeze 3 oz 750 mg Roller

Infused, Hemp Topical

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR / TESTED FOR

Business Name: cbdMD

License Number:

Address:

SAMPLE DETAIL

Batch Number: 22026

Sample ID: 220128M033

Date Collected: 01/28/2022

Date Received: 01/28/2022

Batch Size:

Sample Size: 1.0 units

Unit Mass: 90 grams per Unit

Serving Size: 1 grams per Serving



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 843.390 mg/unit

Sum of Cannabinoids: 861.210 mg/unit

Total Cannabinoids: 861.210 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 = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDA}) +$

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

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

Density: 1.0063 g/mL

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 4.285%



Menthol 42.421 mg/g



γ Terpinene 0.152 mg/g



(-)-Isopulegol 0.102 mg/g

SAFETY ANALYSIS - SUMMARY

Pesticides: ✔ PASS

Mycotoxins: ✔ PASS

Heavy Metals: ✔ PASS

Microbiology (PCR): ✔ PASS

Microbiology (Plating): ✔ PASS

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: Josh Antunovich
Date: 02/01/2022


Approved by: Josh Wurzer, President
Date: 02/01/2022



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 ($\Delta 9$ THC+0.877*THCa)

TOTAL CBD: 843.390 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 861.210 mg/unit

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

TOTAL CBG: 11.970 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: 2.700 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 01/30/2022

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|----------------------------|----------------|--------------------------------|-------------------|----------------|
| CBD | 0.004 / 0.011 | ±0.4489 | 9.371 | 0.9371 |
| CBG | 0.002 / 0.006 | ±0.0083 | 0.133 | 0.0133 |
| CBN | 0.001 / 0.007 | ±0.0013 | 0.035 | 0.0035 |
| CBDV | 0.002 / 0.012 | ±0.0016 | 0.030 | 0.0030 |
| $\Delta 9$ 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 | | | 9.569 mg/g | 0.9569% |

Unit Mass: 90 grams per Unit / Serving Size: 1 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 | 843.390 mg/unit |
| CBD per Serving | 9.371 mg/serving |
| Total CBD per Unit | 843.390 mg/unit |
| Total CBD per Serving | 9.371 mg/serving |
| Sum of Cannabinoids per Unit | 861.210 mg/unit |
| Sum of Cannabinoids per Serving | 9.569 mg/serving |
| Total Cannabinoids per Unit | 861.210 mg/unit |
| Total Cannabinoids per Serving | 9.569 mg/serving |

DENSITY TEST RESULT

1.0063 g/mL

Tested 01/30/2022

Method: QSP 7870 - Sample Preparation





Terpenoid Analysis

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

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

1 Menthol

A monoterpenoid alcohol with a fragrance that can be described as fresh, cool and herbal. It is responsible for the distinct odor of mint. It is frequently added to cigarettes and mouthwash as a flavorant. Found in mint, sunflower, micromeria, mountain mint, rose geranium, pennyroyal, tarragon, savory, basil, juniper, couch grass, rhubarb, acinos (basil thyme), ironwort, muña...etc.

2 γ Terpinene

One of four isomers of the monoterpene Terpinene. It has a fragrance that can be described as sweet, spicy, tropical, woody and oily with a hint of citrus. Found in marjoram, cardamom, tea tree, bible hyssop...etc.

3 (-)-Isopulegol

A monoterpenoid with a fragrance that can be described as woody and minty. It is also a constituent of toxic secretions of exploding ants. Found in eucalyptus, rosemary, citrus, lemon-verbena, micromeria, lemon balm...etc.

TERPENOID TEST RESULTS - 02/01/2022

| COMPOUND | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g) | RESULT (%) |
|---------------------------|----------------|--------------------------------|--------------------|---------------|
| Menthol | 0.008 / 0.025 | ± 1.6968 | 42.421 | 4.2421 |
| γ Terpinene | 0.006 / 0.018 | ± 0.0026 | 0.152 | 0.0152 |
| (-)-Isopulegol | 0.005 / 0.016 | ± 0.0041 | 0.102 | 0.0102 |
| α Terpinene | 0.005 / 0.017 | ± 0.0009 | 0.062 | 0.0062 |
| p-Cymene | 0.005 / 0.016 | ± 0.0012 | 0.044 | 0.0044 |
| α Pinene | 0.005 / 0.017 | ± 0.0002 | 0.026 | 0.0026 |
| Eucalyptol | 0.006 / 0.018 | ± 0.0006 | 0.025 | 0.0025 |
| Sabinene | 0.004 / 0.014 | ± 0.0002 | 0.018 | 0.0018 |
| β Pinene | 0.004 / 0.014 | N/A | <LOQ | <LOQ |
| Myrcene | 0.008 / 0.025 | N/A | <LOQ | <LOQ |
| Limonene | 0.005 / 0.016 | N/A | <LOQ | <LOQ |
| Terpinolene | 0.008 / 0.026 | N/A | <LOQ | <LOQ |
| Terpineol | 0.016 / 0.055 | N/A | <LOQ | <LOQ |
| β Caryophyllene | 0.004 / 0.012 | N/A | <LOQ | <LOQ |
| Camphene | 0.005 / 0.015 | N/A | ND | ND |
| α Phellandrene | 0.006 / 0.020 | N/A | ND | ND |
| 3 Carene | 0.005 / 0.018 | N/A | ND | ND |
| Ocimene | 0.011 / 0.038 | N/A | ND | ND |
| Sabinene Hydrate | 0.006 / 0.022 | N/A | ND | ND |
| Fenchone | 0.009 / 0.028 | N/A | ND | ND |
| Linalool | 0.009 / 0.032 | N/A | ND | ND |
| Fenchol | 0.010 / 0.034 | 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 |
| 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 |
| 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 | | | 42.850 mg/g | 4.285% |





Pesticide Analysis

PESTICIDE TEST RESULTS - 01/29/2022 ✔ PASS

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

Exclusions¹ see last page

Exclusions² see last page

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

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 **Pesticide Analysis** *Continued*

PESTICIDE TEST RESULTS - 01/29/2022 *continued*  **PASS**


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 |
|--------------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Methomyl | 0.03 / 0.10 | 0.1 | 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 |
| Myclobutanil | 0.03 / 0.09 | 9 | N/A | ND | PASS |
| Naled | 0.02 / 0.07 | 0.5 | N/A | ND | PASS |
| Oxamyl | 0.04 / 0.11 | 0.2 | N/A | ND | PASS |
| Paclobutrazol | 0.02 / 0.05 | ≥ LOD | N/A | ND | PASS |
| Pentachloronitrobenzene* | 0.03 / 0.09 | 0.2 | N/A | ND | PASS |
| Permethrin | 0.04 / 0.12 | 20 | N/A | ND | PASS |
| Phosmet | 0.03 / 0.10 | 0.2 | N/A | ND | PASS |
| Piperonylbutoxide | 0.02 / 0.07 | 8 | N/A | ND | PASS |
| Prallethrin | 0.03 / 0.08 | 0.4 | N/A | ND | PASS |
| Propiconazole | 0.02 / 0.07 | 20 | N/A | ND | PASS |
| Propoxur | 0.03 / 0.09 | ≥ LOD | N/A | ND | PASS |
| Pyrethrins | 0.04 / 0.12 | 1 | N/A | ND | PASS |
| Pyridaben | 0.02 / 0.07 | 3 | N/A | ND | PASS |
| Spinetoram | 0.02 / 0.07 | 3 | N/A | ND | PASS |
| Spinosad | 0.02 / 0.07 | 3 | N/A | ND | PASS |
| Spiromesifen | 0.02 / 0.05 | 12 | N/A | ND | PASS |
| Spirotetramat | 0.02 / 0.06 | 13 | N/A | ND | PASS |
| Spiroxamine | 0.03 / 0.08 | ≥ LOD | N/A | ND | PASS |
| Tebuconazole | 0.02 / 0.07 | 2 | N/A | ND | PASS |
| Thiacloprid | 0.03 / 0.10 | ≥ LOD | N/A | ND | PASS |
| Thiamethoxam | 0.03 / 0.10 | 4.5 | N/A | ND | PASS |
| Trifloxystrobin | 0.03 / 0.08 | 30 | N/A | ND | PASS |

 **Mycotoxin Analysis**

MYCOTOXIN TEST RESULTS - 01/29/2022  **PASS**

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

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

Exclusions³ see last page

| 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 |



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 - 01/30/2022 PASS

| COMPOUND | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|----------|----------------|---------------------|--------------------------------|---------------|--------|
| Arsenic | 0.02 / 0.1 | 0.42 | N/A | ND | PASS |
| Cadmium | 0.02 / 0.05 | 0.27 | N/A | ND | PASS |
| Lead | 0.04 / 0.1 | 0.5 | N/A | ND | PASS |
| Mercury | 0.002 / 0.01 | 0.4 | 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) - 02/01/2022 PASS

| COMPOUND | ACTION LIMIT | RESULT | RESULT |
|---|--------------------|--------|--------|
| Shiga toxin-producing <i>Escherichia coli</i> | Not Detected in 1g | ND | PASS |
| <i>Salmonella</i> spp. | Not Detected in 1g | ND | PASS |
| <i>Listeria monocytogenes</i> | Not Detected in 1g | ND | PASS |

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

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

MICROBIOLOGY TEST RESULTS (PLATING) - 02/01/2022 PASS

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

NOTES

- Exclusions: QSP 1213 - Sample Certification: California Code of Regulation Title 4 Division 19
- Exclusions: QSP 1212 - Sample Certification: California Code of Regulation Title 4 Division 19
- Exclusions: Sample Certification: California Code of Regulation Title 4 Division 19

