

SAMPLE NAME: cbdMD Hip and Joint 600 mg Chews

Infused, Hemp Infused

CULTIVATOR / MANUFACTURER

Business Name:
License Number:
Address:

DISTRIBUTOR / TESTED FOR

Business Name: Paw CBD
License Number:
Address:



SAMPLE DETAIL

Batch Number: 210603B1190
Sample ID: 210618R032

Date Collected: 06/18/2021
Date Received: 06/18/2021
Batch Size:
Sample Size: 1.0 units
Unit Mass: 105 grams per Unit
Serving Size: 3.5 grams per Serving



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 721.665 mg/unit

Sum of Cannabinoids: 776.055 mg/unit

Total Cannabinoids: 776.055 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 = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDA}) + (\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) + (\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

SAFETY ANALYSIS - SUMMARY

Pesticides: ND

Mycotoxins: ND

Residual Solvents: ND

Heavy Metals: DETECTED

Microbiology (PCR): ND

Microbiology (Plating): DETECTED

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)

Randi Vuong
 LOC verified by: Randi Vuong
 Date: 06/24/2021

Josh Wurzer
 Approved by: Josh Wurzer, President
 Date: 06/24/2021



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: 721.665 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 776.055 mg/unit

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

TOTAL CBG: 34.545 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 - 06/21/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.3292	6.873	0.6873
CBG	0.002 / 0.006	±0.0205	0.329	0.0329
CBN	0.001 / 0.007	±0.0070	0.189	0.0189
$\Delta 9$ 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
CBDV	0.002 / 0.012	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			7.391 mg/g	0.7391%

Unit Mass: 105 grams per Unit / Serving Size: 3.5 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	721.665 mg/unit
CBD per Serving	24.056 mg/serving
Total CBD per Unit	721.665 mg/unit
Total CBD per Serving	24.056 mg/serving
Sum of Cannabinoids per Unit	776.055 mg/unit
Sum of Cannabinoids per Serving	25.868 mg/serving
Total Cannabinoids per Unit	776.055 mg/unit
Total Cannabinoids per Serving	25.870 mg/serving





Pesticide Analysis

PESTICIDE TEST RESULTS - 06/23/2021 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	0.07	N/A	ND
Acephate	0.02 / 0.07	0.05	N/A	ND
Acequinocyl	0.02 / 0.07	0.03	N/A	ND
Acetamiprid	0.02 / 0.05	0.05	N/A	ND
Aldicarb	0.03 / 0.08	0.1	N/A	ND
Azoxystrobin	0.02 / 0.07	0.01	N/A	ND
Bifenazate	0.01 / 0.04	0.01	N/A	ND
Bifenthrin	0.02 / 0.05	0.2	N/A	ND
Boscalid	0.03 / 0.09	0.01	N/A	ND
Captan	0.19 / 0.57	3	N/A	ND
Carbaryl	0.02 / 0.06	0.025	N/A	ND
Carbofuran	0.02 / 0.05	0.01	N/A	ND
Chlorantraniliprole	0.04 / 0.12	0.02	N/A	ND
Chlordane*	0.03 / 0.08	0.1	N/A	ND
Chlorfenapyr*	0.03 / 0.10	0.1	N/A	ND
Chlorpyrifos	0.02 / 0.06	0.04	N/A	ND
Clofentezine	0.03 / 0.09	0.01	N/A	ND
Coumaphos	0.02 / 0.07	0.01	N/A	ND
Cyfluthrin	0.12 / 0.38	0.1	N/A	ND
Cypermethrin	0.11 / 0.32	0.3	N/A	ND
Daminozide	0.02 / 0.07	0.1	N/A	ND
DDVP (Dichlorvos)	0.03 / 0.09	0.1	N/A	ND
Diazinon	0.02 / 0.05	0.02	N/A	ND
Dimethoate	0.03 / 0.08	0.1	N/A	ND
Dimethomorph	0.03 / 0.09	0.05	N/A	ND
Ethoprop(hos)	0.03 / 0.10	0.01	N/A	ND
Etofenprox	0.02 / 0.06	0.05	N/A	ND
Etoxazole	0.02 / 0.06	0.01	N/A	ND
Fenhexamid	0.03 / 0.09	0.125	N/A	ND
Fenoxycarb	0.03 / 0.08	0.01	N/A	ND
Fenpyroximate	0.02 / 0.06	0.2	N/A	ND
Fipronil	0.03 / 0.08	0.01	N/A	ND
Flonicamid	0.03 / 0.10	0.025	N/A	ND
Fludioxonil	0.03 / 0.10	0.01	N/A	ND
Hexythiazox	0.02 / 0.07	0.01	N/A	ND
Imazalil	0.02 / 0.06	0.01	N/A	ND
Imidacloprid	0.04 / 0.11	0.01	N/A	ND
Kresoxim-methyl	0.02 / 0.07	0.02	N/A	ND
Malathion	0.03 / 0.09	0.02	N/A	ND
Metalaxyl	0.02 / 0.07	0.02	N/A	ND
Methiocarb	0.02 / 0.07	0.02	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 - 06/23/2021 *continued ND*

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Methomyl	0.03 / 0.10	0.05	N/A	ND
Methyl parathion	0.03 / 0.10	0.05	N/A	ND
Mevinphos	0.03 / 0.09	0.025	N/A	ND
Myclobutanil	0.03 / 0.09	0.01	N/A	ND
Naled	0.02 / 0.07	0.1	N/A	ND
Oxamyl	0.04 / 0.11	0.5	N/A	ND
Paclobutrazol	0.02 / 0.05	0.01	N/A	ND
Pentachloronitrobenzene*	0.03 / 0.09	0.02	N/A	ND
Permethrin	0.04 / 0.12	0.04	N/A	ND
Phosmet	0.03 / 0.10	0.02	N/A	ND
Piperonylbutoxide	0.02 / 0.07	0.2	N/A	ND
Prallethrin	0.03 / 0.08	0.05	N/A	ND
Propiconazole	0.02 / 0.07	0.1	N/A	ND
Propoxur	0.03 / 0.09	0.01	N/A	ND
Pyrethrins	0.04 / 0.12	0.05	N/A	ND
Pyridaben	0.02 / 0.07	0.02	N/A	ND
Spinetoram	0.02 / 0.07	0.01	N/A	ND
Spinosad	0.02 / 0.07	0.01	N/A	ND
Spiromesifen	0.02 / 0.05	0.03	N/A	ND
Spirotetramat	0.02 / 0.06	0.01	N/A	ND
Spiroxamine	0.03 / 0.08	0.1	N/A	ND
Tebuconazole	0.02 / 0.07	0.01	N/A	ND
Thiacloprid	0.03 / 0.10	0.01	N/A	ND
Thiamethoxam	0.03 / 0.10	0.01	N/A	ND
Trifloxystrobin	0.03 / 0.08	0.02	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 - 06/22/2021 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 - 06/23/2021 ND

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propane	10 / 20	500	N/A	ND
Butane	10 / 50	2000	N/A	ND
Pentane	20 / 50	1000	N/A	ND
Hexane	2 / 5	ND	N/A	ND
Heptane	20 / 60	500	N/A	ND
Benzene	0.03 / 0.09	ND	N/A	ND
Toluene	7 / 21	ND	N/A	ND
Total Xylenes	50 / 160	217	N/A	ND
Methanol	50 / 200	500	N/A	ND
Ethanol	20 / 50	1000	N/A	ND
Isopropyl Alcohol	10 / 40	500	N/A	ND
Acetone	20 / 50	5000	N/A	ND
Ethyl ether	20 / 50	5000	N/A	ND
Ethylene Oxide	0.3 / 0.8	5	N/A	ND
Ethyl acetate	20 / 60	1000	N/A	ND
Chloroform	0.1 / 0.2	1	N/A	ND
Methylene chloride	0.3 / 0.9	600	N/A	ND
Trichloroethylene	0.1 / 0.3	80	N/A	ND
1,2-Dichloroethane	0.05 / 0.1	5	N/A	ND
Acetonitrile	2 / 7	0.41	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 - 06/22/2021 DETECTED

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	0.00014	±0.01	0.2
Cadmium	0.02 / 0.05	0.00009	N/A	<LOQ
Lead	0.04 / 0.1	0.00029	N/A	ND
Mercury	0.002 / 0.01	0.00029	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

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

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

MICROBIOLOGY TEST RESULTS (PCR) - 06/24/2021 ND

COMPOUND	ACTION LIMIT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Not Detected in 25g	ND
<i>Salmonella</i> spp.	Detect	ND
<i>Listeria monocytogenes</i>	Detect	ND

MICROBIOLOGY TEST RESULTS (PLATING) - 06/24/2021 DETECTED

COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)
Total Aerobic Bacteria	100	500
Total Yeast and Mold	10	900

