

Hemp Quality Assurance Testing

CERTIFICATE OF ANALYSIS

DATE ISSUED 05/19/2021

SAMPLE NAME: cbdMD Freeze 4 oz 1500 mg Squeeze

Infused, Non-Inhalable

CULTIVATOR / MANUFACTURER

Business Name: License Number:

Address:

SAMPLE DETAIL

Batch Number: 21127 Sample ID: 210513S017 **DISTRIBUTOR / TESTED FOR**

Business Name: cbdMD License Number:

Address:

Date Collected: 05/13/2021 Date Received: 05/13/2021

Batch Size:

Sample Size: 1.0 units

Unit Mass: 120 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 THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step: Total THC = Δ 9THC + (THCa (0.877))

Total CBD: 1864.080 mg/unit Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids = Δ 9THC + THCa + CBD + CBDa + CBG + CBGa +

Sum of Cannabinoids: 1878.000 mg/unit THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ8THC + CBL + CBN

Total Cannabinoids = (Δ9THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) +

Total Cannabinoids: 1878.000 mg/unit (CBDV+0.877*CBDVa) + Δ8THC + CBL + CBN

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 3.8412%

Menthol 37.926 mg/g

γ Terpinene 0.133 mg/g

lacksquare lpha Bisabolol 0.128 mg/g

SAFETY ANALYSIS - SUMMARY

∆9THC per Unit: **⊘PASS**

Pesticides: PASS

Mycotoxins: PASS

Heavy Metals: OPASS

Microbiology (PCR): PASS

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: 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: Reza Naemeh

roved by: Josh Wurzer, President





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CBDMD FREEZE 4 OZ 1500 MG SQUEEZE | DATE ISSUED 05/19/2021

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 (Δ9THC+0.877*THCa)

TOTAL CBD: 1864.080 mg/unit

Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDS: 1878.000 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ 8THC + CBL + CBN

TOTAL CBG: 10.320 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 - 05/16/2021

	COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
	CBD	0.004 / 0.011	±0.7441	15.534	1.5534
	CBG	0.002 / 0.006	±0.0053	0.086	0.0086
	CBN	0.001 / 0.007	±0.0011	0.030	0.0030
	Δ9ΤΗС	0.002/0.014	N/A	ND	ND
	Δ8ΤΗC	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
nit-	CBDa	0.001 / 0.026	N/A	ND	ND
1111	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
	СВС	0.003 / 0.010	N/A	ND	ND
	CBCa	0.001 / 0.015	N/A	ND	ND
	SUM OF CANNAB	INOIDS		15.650 mg/g	1.565%

Unit Mass: 120 grams per Unit / Serving Size: 1 grams per Serving

Δ9THC per Unit	1120 per-package limit	ND	PASS
Δ9THC per Serving		ND	
Total THC per Unit		ND	
Total THC per Serving		ND	
CBD per Unit		1864.080 mg/unit	
CBD per Serving		15.534 mg/serving	
Total CBD per Unit		1864.080 mg/unit	
Total CBD per Serving		15.534 mg/serving	
Sum of Cannabinoids per Unit		1878.000 mg/unit	
Sum of Cannabinoids per Serving		15.650 mg/serving	
Total Cannabinoids per Unit		1878.000 mg/unit	
Total Cannabinoids per Serving		15.650 mg/serving	





CERTIFICATE OF ANALYSIS







Terpenoid Analysis

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

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



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.



 $\begin{array}{l} \gamma \, \text{Terpinene} \\ \text{One of four isomers of the monoterpene} \end{array}$ 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.



α Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.



Menthol $\gamma \text{Terpinene}$ $\alpha \text{Bisabolol}$ (-)-Isopulegol $\alpha \text{Terpinene}$ p-Cymene	0.008 / 0.025 0.006 / 0.018 0.008 / 0.026 0.005 / 0.016 0.005 / 0.017 0.005 / 0.016	±1.5170 ±0.0023 ±0.0068 ±0.0035 ±0.0009	37.926 0.133 0.128	3.7926 0.0133 0.0128
α Bisabolol (-)-Isopulegol α Terpinene	0.008 / 0.026 0.005 / 0.016 0.005 / 0.017 0.005 / 0.016	±0.0068 ±0.0035		
(-)-Isopulegol α Terpinene	0.005 / 0.016 0.005 / 0.017 0.005 / 0.016	±0.0035	0.128	0.0128
αTerpinene	0.005 / 0.017 0.005 / 0.016			
	0.005 / 0.016	±0.0009	0.086	0.0086
p-Cymene			0.058	0.0058
r -,	0.005 / 0.047	±0.0012	0.043	0.0043
α Pinene	0.005 / 0.017	±0.0002	0.019	0.0019
Eucalyptol	0.006 / 0.018	±0.0005	0.019	0.0019
βPinene	0.004 / 0.014	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Limonene	0.005 / 0.016	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Terpinolene	0.008 / 0.026	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Terpineol	0.016 / 0.055	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
α Humulene	0.009/0.029	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Camphene	0.005/0.015	N/A	ND	ND
Sabinene	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
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
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
TOTAL TERPENOIDS			38.412 mg/g	3.8412%









CBDMD FREEZE 4 OZ 1500 MG SQUEEZE | DATE ISSUED 05/19/2021



Pesticide Analysis

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

CATEGORY 1 PESTICIDE TEST RESULTS - 05/17/2021 PASS

со	MPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Ald	licarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Car	bofuran	0.02 / 0.05	≥LOD	N/A	ND	PASS
Chl	ordane*	0.03 / 0.08	≥LOD	N/A	ND	PASS
Chl	orfenapyr*	0.03 / 0.10	≥LOD	N/A	ND	PASS
Chl	orpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Cou	umaphos	0.02 / 0.07	≥LOD	N/A	ND	PASS
Dar	minozide	0.02 / 0.07	≥LOD	N/A	ND	PASS
DD	VP (Dichlorvos)	0.03/0.09	≥LOD	N/A	ND	PASS
Din	nethoate	0.03 / 0.08	≥LOD	N/A	ND	PASS
Eth	oprop(hos)	0.03 / 0.10	≥LOD	N/A	ND	PASS
Eto	fenprox	0.02 / 0.06	≥LOD	N/A	ND	PASS
Fen	noxycarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Fip	ronil	0.03 / 0.08	≥LOD	N/A	ND	PASS
lma	azalil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Me	thiocarb	0.02 / 0.07	≥LOD	N/A	ND	PASS
Me	thyl parathion	0.03 / 0.10	≥LOD	N/A	ND	PASS
Me	vinphos	0.03/0.09	≥LOD	N/A	ND	PASS
Pac	lobutrazol	0.02 / 0.05	≥LOD	N/A	ND	PASS
Pro	poxur	0.03 / 0.09	≥LOD	N/A	ND	PASS
Spi	roxamine	0.03 / 0.08	≥LOD	N/A	ND	PASS
Thi	acloprid	0.03 / 0.10	≥LOD	N/A	ND	PASS

CATEGORY 2 PESTICIDE TEST RESULTS - 05/17/2021 PASS

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
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
Chlorantraniliprole	0.04 / 0.12	40	N/A	ND	PASS
Clofentezine	0.03 / 0.09	0.5	N/A	ND	PASS
Cyfluthrin	0.12 / 0.38	1	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Diazinon	0.02 / 0.05	0.2	N/A	ND	PASS
Dimethomorph	0.03 / 0.09	20	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
Fenpyroximate	0.02 / 0.06	2	N/A	ND	PASS



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Pesticide Analysis Continued

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

CATEGORY 2 PESTICIDE TEST RESULTS - 05/17/2021 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
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
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
Methomyl	0.03 / 0.10	0.1	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
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
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
Tebuconazole	0.02 / 0.07	2	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 analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

 $\textbf{Method:} \ \mathsf{QSP} \ \mathsf{1212} \text{-} \ \mathsf{Analysis} \ \mathsf{of} \ \mathsf{Pesticides} \ \mathsf{and} \ \mathsf{Mycotoxins} \ \mathsf{by} \\ \mathsf{LC\text{-}MS}$

MYCOTOXIN TEST RESULTS - 05/17/2021 O PASS

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





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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 - 05/16/2021 **⊘ 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



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 $3M^{TM}$ Petrifilm and plate counts of microbiological contaminants.

Method: QSP 6794 - Plating with $3M^{TM}$ PetrifilmTM

MICROBIOLOGY TEST RESULTS (PCR) - 05/19/2021 PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing Escherichia coli	Detect	ND	PASS
Salmonella spp.	Detect	ND	PASS
Listeria monocytogenes		ND	

MICROBIOLOGY TEST RESULTS (PLATING) - 05/19/2021 ND

COMPOUND	RESULT (cfu/g)
Total Aerobic Bacteria	ND
Total Yeast and Mold	ND

