

## **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 03/29/2023** 

#### SAMPLE NAME: Broad Spectrum PM 750mg Gummies

Infused, Solid Edible

**CULTIVATOR / MANUFACTURER** 

**Business Name:** License Number:

Address:

SAMPLE DETAIL

Batch Number: 91530 Sample ID: 230323M021 **DISTRIBUTOR / TESTED FOR** 

Business Name: cbdMD License Number:

Address:

Date Collected: 03/23/2023 Date Received: 03/23/2023

Batch Size:

Sample Size: 1.0 units

**Unit Mass:** 

Serving Size: 6.4 grams per Serving





Scan QR code to verify authenticity of results.

#### **CANNABINOID ANALYSIS - SUMMARY**

**Total THC: Not Detected** 

Total CBD: 4.4252 mg/g

Sum of Cannabinoids: 4.6635 mg/g

Total Cannabinoids: 4.6635 mg/g

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 =  $\Delta^9$ -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids =  $\Delta^9$ -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa +  $\Delta^8$ -THC + CBL + CBN Total Cannabinoids =  $(\Delta^9$ -THC+0.877\*THCa) + (CBD+0.877\*CBDa) + (CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

(CBDV+0.877\*CBDVa) +  $\Delta^8$ -THC + CBL + CBN

#### **SAFETY ANALYSIS - SUMMARY**

 $\Delta^9$ -THC per Serving:  $\bigcirc$  PASS

Residual Solvents: PASS

Water Activity: PASS

Pesticides: PASS

Heavy Metals: PASS

Mycotoxins: PASS

Foreign Material: OPASS

For quality assurance purposes. Not a Regulatory 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 4 Division 19. Department of Cannabis Control 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  $decision\ rules\ are\ applied:\ PASS-Results\ within\ limits/specifications,\ FAIL-Results\ exceed\ limits/specifications.$ 

Date: 03/29/2023

Approved by: Josh Wurzer Title: Chief Compliance Officer

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)



### **CERTIFICATE OF ANALYSIS**



BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 03/29/2023



# Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

†Analytes not part of our ISO/IEC 17025 scope of accreditation.

Method: LA-SOP-101 Cannabinoid Analysis by HPLC-DAD

TOTAL THC: Not Detected
Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

TOTAL CBD: 4.4252 mg/g

Total CBD (CBD+0.877\*CBDa)

TOTAL CANNABINOIDS: 4.6635 mg/g

$$\label{eq:total_constraint} \begin{split} & Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{split}$$

TOTAL CBG: 0.2014 mg/g

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: 0.0175 mg/g
Total CBDV (CBDV+0.877\*CBDVa)

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# **Pesticide Analysis**

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:** LA-SOP-301 Pesticides & Mycotoxins Analysis by LC-MS or LA-SOP-302 Pesticides Analysis by GC-MS

#### **CANNABINOID TEST RESULTS - 03/24/2023**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.0010 / 0.0034	±0.01814	4.4252	0.44252
CBG	0.0008 / 0.0027	±0.00079	0.2014	0.02014
CBN	0.0004 / 0.0021	±0.00004	0.0194	0.00194
CBDV	0.0013 / 0.0044	±0.00011	0.0175	0.00175
Δ <sup>9</sup> -THC	0.0016 / 0.0054	N/A	ND	ND
$\Delta^8$ -THC	0.0011/0.0036	N/A	ND	ND
THCa	0.0003 / 0.0021	N/A	ND	ND
THCV	0.0006 / 0.0021	N/A	ND	ND
THCVa	0.0006 / 0.0021	N/A	ND	ND
CBDa	0.0005 / 0.0021	N/A	ND	ND
CBDVa	0.0004 / 0.0021	N/A	ND	ND
CBGa	0.0005 / 0.0021	N/A	ND	ND
CBL <sup>†</sup>	0.0010 / 0.0034	N/A	ND	ND
СВС	0.0007 / 0.0023	N/A	ND	ND
CBCa	0.0011/0.0035	N/A	ND	ND
SUM OF CANNA	ABINOIDS		4.6635 mg/g	0.46635%

### Serving Size: 6.4 grams per Serving

$\Delta^9$ -THC per Serving	ND	PASS
Total THC per Serving	ND	
CBD per Serving	28.3213 mg/serving	
Total CBD per Serving	28.3213 mg/serving	
Sum of Cannabinoids per Serving	29.8464 mg/serving	
Total Cannabinoids per Serving	29.8465 mg/serving	

### PESTICIDE TEST RESULTS - 03/28/2023 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Abamectin	0.0257 / 0.0857	0.3	N/A	ND	PASS
Acephate	0.0272 / 0.0908	5	N/A	ND	PASS
Acequinocyl	0.0230 / 0.0780	4	N/A	ND	PASS
Acetamiprid	0.0100 / 0.0350	5	N/A	ND	PASS
Aldicarb	0.0241 / 0.0804	≥LOD	N/A	ND	PASS
Azoxystrobin	0.0160 / 0.0530	40	N/A	ND	PASS
Bifenazate	0.0241 / 0.0805	5	N/A	ND	PASS
Bifenthrin	0.1990 / 0.6640	0.5	N/A	ND	PASS
Boscalid	0.0240 / 0.0800	10	N/A	ND	PASS
Captan*	0.1200 / 0.4000	5	N/A	ND	PASS
Carbaryl	0.0350 / 0.1170	0.5	N/A	ND	PASS

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# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 03/29/2023



# **Pesticide Analysis** Continued

### PESTICIDE TEST RESULTS - 03/28/2023 continued **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Carbofuran	0.0252 / 0.0839	≥LOD	N/A	ND	PASS
Chlorantraniliprole	0.0260 / 0.0880	40	N/A	ND	PASS
Chlordane*	0.0267 / 0.0890	≥LOD	N/A	ND	PASS
Chlorfenapyr*	0.0130 / 0.0430	≥LOD	N/A	ND	PASS
Chlorpyrifos	0.0107 / 0.0355	≥LOD	N/A	ND	PASS
Clofentezine	0.0215 / 0.0717	0.5	N/A	ND	PASS
Coumaphos	0.0260 / 0.0860	≥LOD	N/A	ND	PASS
Cyfluthrin	0.1720 / 0.5740	1	N/A	ND	PASS
Cypermethrin	0.0410 / 0.1380	1	N/A	ND	PASS
Daminozide	0.0254 / 0.0846	≥LOD	N/A	ND	PASS
Diazinon	0.0210 / 0.0690	0.2	N/A	ND	PASS
Dichlorvos (DDVP)	0.0070 / 0.0240	≥LOD	N/A	ND	PASS
Dimethoate	0.0183 / 0.0611	≥LOD	N/A	ND	PASS
Dimethomorph	0.0630 / 0.2090	20	N/A	ND	PASS
Ethoprophos	0.0280 / 0.0930	≥LOD	N/A	ND	PASS
Etofenprox	0.0261 / 0.0870	≥LOD	N/A	ND	PASS
Etoxazole	0.0290 / 0.0970	1.5	N/A	ND	PASS
Fenhexamid	0.0140 / 0.0460	10	N/A	ND	PASS
Fenoxycarb	0.0280 / 0.0920	≥LOD	N/A	ND	PASS
Fenpyroximate	0.0080 / 0.0250	2	N/A	ND	PASS
Fipronil	0.0157 / 0.0520	≥LOD	N/A	ND	PASS
Flonicamid	0.0120 / 0.0390	2	N/A	ND	PASS
Fludioxonil	0.0270 / 0.0910	30	N/A	ND	PASS
Hexythiazox	0.0151 / <mark>0.0500</mark>	2	N/A	ND	PASS
lmazalil	0.0284/0.0950	≥LOD	N/A	ND	PASS
Imidacloprid	0.03 <mark>97 / 0.1320</mark>	3	N/A	ND	PASS
Kresoxim-methyl	0.0270 / 0.0910	1	N/A	ND	PASS
Malathion	0.1270 / 0.4240	5	N/A	ND	PASS
Metalaxyl	0.0570 / 0.1910	15	N/A	ND	PASS
Methiocarb	0.0080 / 0.0280	≥LOD	N/A	ND	PASS
Methomyl	0.0120 / 0.0420	0.1	N/A	ND	PASS
Mevinphos	0.0176 / 0.0590	≥LOD	N/A	ND	PASS
Myclobutanil	0.0183 / 0.0610	9	N/A	ND	PASS
Naled	0.0160 / 0.0540	0.5	N/A	ND	PASS
Oxamyl	0.0380 / 0.1250	0.2	N/A	ND	PASS
Paclobutrazol	0.0268 / 0.0890	≥LOD	N/A	ND	PASS
Parathion-methyl*	0.0229 / 0.0760	≥LOD	N/A	ND	PASS
Pentachloronitrobenzene*	0.0261 / 0.0870	0.2	N/A	ND	PASS
Permethrin	0.0280 / 0.0940	20	N/A	ND	PASS
Phosmet	0.0280 / 0.0950	0.2	N/A	ND	PASS
Piperonyl Butoxide	0.0380 / 0.1260	8	N/A	ND	PASS

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## **CERTIFICATE OF ANALYSIS**



BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 03/29/2023



# Pesticide Analysis Continued

#### PESTICIDE TEST RESULTS - 03/28/2023 continued **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Prallethrin	0.0250 / 0.0850	0.4	N/A	ND	PASS
Propiconazole	0.0268 / 0.0890	20	N/A	ND	PASS
Propoxur	0.0215 / 0.0720	≥LOD	N/A	ND	PASS
Pyrethrins	0.0300 / 0.1020	1	N/A	ND	PASS
Pyridaben	0.0228 / 0.0760	3	N/A	ND	PASS
Spinetoram	0.0180 / 0.0620	3	N/A	ND	PASS
Spinosad	0.0280 / 0.0940	3	N/A	ND	PASS
Spiromesifen	0.0297 / 0.0990	12	N/A	ND	PASS
Spirotetramat	0.0110/0.0350	13	N/A	ND	PASS
Spiroxamine	0.0073 / 0.0240	≥LOD	N/A	ND	PASS
Tebuconazole	0.0197/0.0660	2	N/A	ND	PASS
Thiacloprid	0.0211/0.0700	≥LOD	N/A	ND	PASS
Thiamethoxam	0.0340 / 0.1130	4.5	N/A	ND	PASS
Trifloxystrobin	0.0290 / 0.0970	30	N/A	ND	PASS



# **Mycotoxin Analysis**

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

Method: LA-SOP-301 Pesticides & Mycotoxins Analysis by LC-

## MYCOTOXIN TEST RESULTS - 03/28/2023 O PASS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (μg/kg)	MEASUREMENT UNCERTAINTY (μg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	0.7575 / 2.5249		N/A	ND	
Aflatoxin B2	0.8260 / 2.7530		N/A	ND	
Aflatoxin G1	0.7380 / 2.4590		N/A	ND	
Aflatoxin G2	1.6030 / 5.3440		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	5.9420 / 19. <mark>8060</mark>	20	N/A	ND	PASS



# **Residual Solvents Analysis**

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

Method: LA-SOP-202 Solvent Analysis by GC-MS

#### RESIDUAL SOLVENTS TEST RESULTS - 03/28/2023 **⊘ PASS**

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Propane	42.44 / 141.57	5000	N/A	ND	PASS
n-Butane	35.32 / 117.80	5000	N/A	ND	PASS
n-Pentane	28.08 / 93.67	5000	N/A	ND	PASS
n-Hexane	33.99 / 113.37	290	N/A	ND	PASS
n-Heptane	42.11 / 140.48	5000	N/A	ND	PASS
Benzene	0.09/1.00	1	N/A	ND	PASS
Toluene	23.99 / 80.03	890	N/A	ND	PASS
Total Xylenes	65.49 / 218.45	2170	N/A	ND	PASS
Methanol	149.00 / 497.01	3000	N/A	ND	PASS
Ethanol	14.96 / 50.00	5000	N/A	ND	PASS

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# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 03/29/2023



#### RESIDUAL SOLVENTS TEST RESULTS - 03/28/2023 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
2-Propanol (Isopropyl Alcohol)	19.79 / 66.02	5000	N/A	ND	PASS
Acetone	9.19 / 50.00	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Ethyl Ether	16.00 / 53.36	5000	N/A	ND	PASS
Ethylene Oxide	0.30 / 1.00	1	N/A	ND	PASS
Ethyl Acetate	12.80 / 50.00	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Chloroform	0.21 / 1.00	1	N/A	ND	PASS
Dichloromethane (Methylene Chloride)	0.11 / 1.00	1	N/A	ND	PASS
Trichloroethylene	0.06 / 1.00	1	N/A	ND	PASS
1,2-Dichloroethane	0.08 / 1.00	1	N/A	ND	PASS
Acetonitrile	17.49 / 58.35	410	N/A	ND	PASS



## **Heavy Metals Analysis**

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: LA-SOP-502 Heavy Metals Analysis by ICP-MS



Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta.

Method: LA-SOP-600 Foreign Material

## **HEAVY METALS TEST RESULTS** - 03/29/2023 **PASS**

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Arsenic	0.006 / 0.05	1.5	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Cadmium	0.003 / 0.05	0.5	N/A	ND	PASS
Lead	0.010 / 0.05	0.5	±0.002	0.11	PASS
Mercury	0.003 / 0.05	3	N/A	<loq< th=""><th>PASS</th></loq<>	PASS

### FOREIGN MATERIAL TEST RESULTS - 03/28/2023 PASS

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS



BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 03/29/2023

# **Water Activity Analysis**

WATER ACTIVITY TEST RESULTS - 03/28/2023 PASS

Method: LA-SOP-102 Water Activity Analysis

COMPOUND	LOD/LOQ (Aw)	ACTION LIMIT (Aw)	MEASUREMENT UNCERTAINTY (Aw)	RESULT (Aw)	RESULT
Water Activity	0.030 / 0.250	0.85	±0.0304	0.651	PASS

#### **NOTES**

COA amended to reflect requested assays.



# **Certificate of Analysis**

# **Sample Information**

CTLA ID: 71544

Date Received: 4/4/2023

Sample Name: Broad Spectrum Sleep Gummies

Lot Number: 91530

Customer: Factory 6

Analysis	Method	MDL Specification	Result	Units
Melatonin	HPLC	0.009 5-6	6.088	mg/serv

Serv=Serving

Serving=2 Gummies

4/7/2023

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Specifications provided by the Customer. Results with an asterisk (\*) denote Specifications should be reviewed by the Customer. This Certificate of Analysis represents data for the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. These results are provided for the benefit of the Customer. MDL = Method Detection Limit. This document is not to be altered or reproduced except by the original authorizing body (CTLA)



# **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 04/17/2023** 

#### SAMPLE NAME: Broad Spectrum PM 750mg Gummies

Infused, Solid Edible

**CULTIVATOR / MANUFACTURER** 

Business Name: License Number:

Address:

SAMPLE DETAIL

**Batch Number:** 91530 **Sample ID:** 230411M017

**DISTRIBUTOR / TESTED FOR** 

Business Name: cbdMD License Number:

Address:

Date Collected: 04/11/2023 Date Received: 04/11/2023

Batch Size:

Sample Size: 1.0 units

Unit Mass: Serving Size:





Scan QR code to verify authenticity of results.

**SAFETY ANALYSIS - SUMMARY** 

Microbiology (PCR): PASS

Microbiology (Plating): ND

For quality assurance purposes. Not a Regulatory 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 4 Division 19. Department of Cannabis Control 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: Josh Antunovich Job Title: Laboratory Manager Date: 04/17/2023 Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 04/17/2023



# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS



BROAD SPECTRUM PM 750MG GUMMIES | DATE ISSUED 04/17/2023



# **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  $3M^{TM}$  Petrifilm $^{TM}$ 

### MICROBIOLOGY TEST RESULTS (PCR) - 04/17/2023 PASS

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

#### MICROBIOLOGY TEST RESULTS (PLATING) - 04/17/2023 ND

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