

# HEMP LABORATORY TEST CERTIFICATE OF ANALYSIS



## Hemp Analysis - Summary

Tested by high-performance liquid chromatography with ultraviolet detection (HPLC-UV).

### TOTAL THC<sup>1</sup>

**PASSED<sup>2</sup>** Not Detected

### CANNABINOID PROFILE

3.0085% Total CBD<sup>1</sup>

3.0163% Total Cannabinoids<sup>3</sup>

Terpenes NT



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- 1) Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step: Total THC =  $\Delta^9\text{THC} + (\text{THCa} \times 0.877)$  and Total CBD =  $\text{CBD} + (\text{CBDa} \times 0.877)$ .
- 2) As defined by the 2018 Farm Bill, hemp must contain no more than 0.3% Total THC, defined as the concentration of delta-9 tetrahydrocannabinol ( $\Delta^9\text{-THC}$ ) post-decarboxylation - see formula above.
- 3) Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

## Additional Testing

Pass/Fail defined at action limits set by California Code of Regulations Title 16. Effective date: January 16, 2019. Authority: Section 26013, Business Professions Code. Reference: Sections 26100, 26104, and 26110, Business Professions Code.

### MICROBIAL IMPURITIES

**PASSED**

## cbdMD Tincture 60 mL Natural 1500 mg

Tested for: cbdMD

Address:

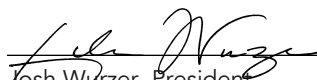
Batch #: 391550

Sample ID: 191003N028

Date Collected: 10/03/2019

Date Received: 10/03/2019

## Final Approval

  
Josh Wurzer, President  
Date: 10/05/2019

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. The uncertainty of measurement associated with the measurement result reported in this certificate is available from SC Laboratories upon request.



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SC Laboratories, LLC  
100 Pioneer Street, Suite E  
Santa Cruz, CA 95060  
(866) 435-0709 | sclabs.com

Sample Name: cbdMD Tincture 60 mL Natural 1500 mg  
LIMS Sample ID: 191003N028  
Batch #: 391550  
Sample Metric ID:  
Sample Type: Infused, Other  
Batch Count:  
Sample Count:  
Unit Volume: 60 Milliliters per Unit  
Serving Mass:  
Density: 0.9321 g/mL

Date Collected: 10/03/2019  
Date Received: 10/03/2019  
Tested for: cbdMD  
License #:  
Address:  
Produced by:  
License #:  
Address:

**Overall result for batch 391550: Pass**

## Moisture Test Results

	Results (%)
Moisture	NT

## Water Activity Test Results

	Results (Aw)	Action Limit Aw
Water Activity	NT	

## Cannabinoid Test Results

10/05/2019

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC, QSP 5-4-4-4)

	mg/mL	%	LOD / LOQ mg/mL
Δ9THC	ND	ND	0.0009 / 0.003
Δ8THC	ND	ND	0.0009 / 0.003
THCa	ND	ND	0.0009 / 0.003
THCV	ND	ND	0.0004 / 0.001
THCVa	ND	ND	0.0013 / 0.004
CBD	28.042	3.0085	0.0009 / 0.003
CBDa	ND	ND	0.0009 / 0.003
CBDV	0.073	0.0078	0.0004 / 0.001
CBDVa	ND	ND	0.0003 / 0.001
CBG	ND	ND	0.001 / 0.003
CBGa	ND	ND	0.0008 / 0.002
CBL	ND	ND	0.0021 / 0.006
CBN	ND	ND	0.0009 / 0.003
CBC	ND	ND	0.0011 / 0.003
CBCa	ND	ND	0.0015 / 0.005

Sum of Cannabinoids:	28.115	3.0163	1686.900 mg/Unit
Total THC (Δ9THC+0.877*THCa)	ND	ND	ND
Total CBD (CBD+0.877*CBDa)	28.042	3.0085	1682.520 mg/Unit

	Action Limit mg
Δ9THC per Unit	ND
Δ9THC per Serving	ND

## Terpene Test Results

Terpene analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

	mg/g	%	LOD / LOQ mg/g
☑ Bisabolol	NT		
☑ Pinene	NT		
3 Carene	NT		
Borneol	NT		
☑ Caryophyllene	NT		
Geraniol	NT		
☑ Humulene	NT		
Terpinolene	NT		
Valencene	NT		
Menthol	NT		
Nerolidol	NT		
Camphene	NT		
Eucalyptol	NT		
☑ Cedrene	NT		
Camphor	NT		
(-)-Isopulegol	NT		
Sabinene	NT		
☑ Terpinene	NT		
☑ Terpinene	NT		
Linalool	NT		
Limonene	NT		
Myrcene	NT		
Fenchol	NT		
☑ Phellandrene	NT		
Caryophyllene Oxide	NT		
Terpineol	NT		
☑ Pinene	NT		
R-(+)-Pulegone	NT		
Geranyl Acetate	NT		
Citronellol	NT		
p-Cymene	NT		
Ocimene	NT		
Guaiol	NT		
Phytol	NT		
Isoborneol	NT		

Total Terpene Concentration: NT

## Batch Photo

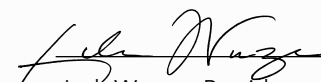


## Sample Certification

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.



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Josh Wurzer, President  
Date: 10/05/2019



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**Overall result for batch 391550: Pass**

## Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry and GC-Mass Spectrometry

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
Abamectin	NT		
Acephate	NT		
Acequinocyl	NT		
Acetamiprid	NT		
Azoxystrobin	NT		
Bifenazate	NT		
Bifenthrin	NT		
Boscalid	NT		
Captan	NT		
Carbaryl	NT		
Chlorantraniliprole	NT		
Clofentezine	NT		
Cyfluthrin	NT		
Cypermethrin	NT		
Diazinon	NT		
Dimethomorph	NT		
Etoxazole	NT		
Fenhexamid	NT		
Fenpyroximate	NT		
Fonicamid	NT		
Fludioxonil	NT		
Hexythiazox	NT		
Imidacloprid	NT		
Kresoxim-methyl	NT		
Malathion	NT		
Metalaxyl	NT		
Methomyl	NT		
Myclobutanil	NT		
Naled	NT		
Oxamyl	NT		
Pentachloronitrobenzene	NT		
Permethrin	NT		
Phosmet	NT		
Piperonylbutoxide	NT		
Prallethrin	NT		
Propiconazole	NT		
Pyrethrins	NT		
Pyridaben	NT		
Spinetoram	NT		
Spinosad	NT		
Spiromesifen	NT		
Spirotetramat	NT		
Tebuconazole	NT		
Thiamethoxam	NT		
Trifloxystrobin	NT		

## Mycotoxin Test Results

Mycotoxin analysis utilizing HPLC-Mass Spectrometry

	Results (µg/kg)	Action Limit µg/kg	LOD / LOQ µg/kg
Aflatoxin B1, B2, G1, G2	NT		
Ochratoxin A	NT		

## Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry and GC-Mass Spectrometry

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
Aldicarb	NT		
Carbofuran	NT		
Chlordane	NT		
Chlorfenapyr	NT		
Chlorpyrifos	NT		
Coumaphos	NT		
Daminozide	NT		
DDVP (Dichlorvos)	NT		
Dimethoate	NT		
Ethoprop(hos)	NT		
Etofenprox	NT		
Fenoxycarb	NT		
Fipronil	NT		
Imazalil	NT		
Methiocarb	NT		
Methyl parathion	NT		
Mevinphos	NT		
Padlobutrazol	NT		
Propoxur	NT		
Spiroxamine	NT		
Thiacloprid	NT		

## Heavy Metal Test Results

Heavy metal analysis utilizing Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
Cadmium	NT		
Lead	NT		
Arsenic	NT		
Mercury	NT		

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Address:  
Produced by:  
License #:  
Address:

**Overall result for batch 391550: Pass**

**Residual Solvent Test Results**

Residual Solvent analysis utilizing Gas Chromatography - Mass Spectrometry (GC - MS)

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
1,2-Dichloroethane	NT		
Benzene	NT		
Chloroform	NT		
Ethylene Oxide	NT		
Methylene chloride	NT		
Trichloroethylene	NT		
Acetone	NT		
Acetonitrile	NT		
Butane	NT		
Ethanol	NT		
Ethyl acetate	NT		
Ethyl ether	NT		
Heptane	NT		
Hexane	NT		
Isopropyl Alcohol	NT		
Methanol	NT		
Pentane	NT		
Propane	NT		
Toluene	NT		
Total Xylenes	NT		

**Note**

**Microbiological Test Results - Pass**

**10/04/2019**

PCR and fluorescence detection of microbiological impurities

	Results	Action Limit
Shiga toxin-producing Escherichia coli	Pass	ND
Salmonella spp.	Pass	ND
Aspergillus fumigatus	NT	
Aspergillus flavus	NT	
Aspergillus niger	NT	
Aspergillus terreus	NT	

3M Petrifilm and plate counts for microbiological contamination

	Results (cfu/g)
Aerobic Plate Count	NT
Total Yeast and Mold	NT

**Foreign Material Test Results**

NT

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*Josh Wurzer*  
Josh Wurzer, President  
Date: 10/05/2019