

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Softgels with Melatonin  
**PRODUCT STRENGTH:** 25 mg CBD / 3 mg Melatonin / 3mg CBN  
**TINCTURE BATCH:** 43487C  
**BEST BY DATE:** 06/25/2023  
**HEMP EXTRACT LOT:** 21E0000847

\*Click on the links to view third-party reports\*

### Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	No Odor	PASS
Appearance	Joy Internal	Dry, ovoid softgel capsules in container with lid and shrink-band	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	Joy Internal	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

### Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
<b>Potency - Total CBD</b>	HPLC-UV DAD	LOQ**: ≥ product strength mg / bottle	<b>31.98 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% THC (Broad Spectrum)	<b>Below LOQ</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 ***CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb†† Aflatoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS

\*\*Level of Quantification

\*\*\*Colony Forming Units per Gram †  
Parts Per Million †† Part Per Billion

Values expressed in scientific notation.

Examples:  
10<sup>2</sup>=100  
10<sup>3</sup>=1,000

Quality Certified

Kayla Kolber

Quality Assurance Technician

10/04/2021

Date

**SG25M**


Batch ID or Lot Number: **21E0000847**      Test: **Potency**      Reported: **7/30/21**


Matrix:      Test ID:      Started:      USDA License:  
 Unit      T000153154      7/28/21      N/A

Status:      Method:      Received:      Sampler ID:  
 N/A      TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC (Colorado Panel)      07/22/2021 @ 10:29 AM      N/A

**CANNABINOID PROFILE**

Compound	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.007	0.018	ND	ND	# of Servings = 1 Sample Weight=0.57g
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.007	0.020	ND	ND	
Cannabidiolic acid (CBDA)	0.065	0.237	ND	ND	
Cannabidiol (CBD)	0.064	0.231	31.979	56.07	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.083	0.240	ND	ND	
Cannabinolic Acid (CBNA)	0.047	0.137	ND	ND	
Cannabinol (CBN)	0.022	0.063	3.721	6.52	
Cannabigerolic acid (CBGA)	0.069	0.201	ND	ND	
Cannabigerol (CBG)	0.017	0.048	2.080	3.65	
Tetrahydrocannabivarinic Acid (THCVA)	0.059	0.170	ND	ND	
Tetrahydrocannabivarin (THCV)	0.015	0.044	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.027	0.099	ND	ND	
Cannabidivarin (CBDV)	0.015	0.055	0.049*	0.09*	
Cannabichromenic Acid (CBCA)	0.027	0.078	ND	ND	
Cannabichromene (CBC)	0.029	0.085	ND	ND	
<b>Total Cannabinoids</b>			<b>37.829</b>	<b>66.33</b>	
Total Potential THC**			ND	ND	
Total Potential CBD**			31.979	56.07	

 Ryan Weems  
 30-Jul-2021  
 09:48 AM

 Taylor Brevik  
 30-Jul-21  
 9:53 AM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

\* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

\*\* Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$

Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



CDPHE Certified



Certificate #4329.02

SG25M

<b>Batch ID:</b>	21E0000847	<b>Test ID:</b>	T000153155
<b>Type:</b>	Concentrate	<b>Submitted:</b>	07/22/2021 @ 10:29 AM
<b>Test:</b>	Pesticides	<b>Started:</b>	7/26/2021
<b>Method:</b>	TM17 (UHPLC-QQQ LC MS/MS)	<b>Reported:</b>	7/28/2021


## PESTICIDE RESIDUE

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	47 - 2633	ND*	Malathion	317 - 2633	ND*
Acetamiprid	45 - 2633	ND*	Metalaxyl	44 - 2633	ND*
Abamectin	>288	ND*	Methiocarb	43 - 2633	ND*
Azoxystrobin	46 - 2633	ND*	Methomyl	46 - 2633	ND*
Bifenazate	43 - 2633	ND*	MGK 264 1	181 - 2633	ND*
Boscalid	45 - 2633	ND*	MGK 264 2	129 - 2633	ND*
Carbaryl	44 - 2633	ND*	Myclobutanil	49 - 2633	ND*
Carbofuran	48 - 2633	ND*	Naled	49 - 2633	ND*
Chlorantraniliprole	56 - 2633	ND*	Oxamyl	42 - 2633	ND*
Chlorpyrifos	49 - 2633	ND*	Paclobutrazol	48 - 2633	ND*
Clofentezine	306 - 2633	ND*	Permethrin	302 - 2633	ND*
Diazinon	312 - 2633	ND*	Phosmet	44 - 2633	ND*
Dichlorvos	>265	ND*	Prophos	280 - 2633	ND*
Dimethoate	45 - 2633	ND*	Propoxur	47 - 2633	ND*
E-Fenpyroximate	362 - 2633	ND*	Pyridaben	342 - 2633	ND*
Etofenprox	45 - 2633	ND*	Spinosad A	32 - 2633	ND*
Etoxazole	334 - 2633	ND*	Spinosad D	89 - 2633	ND*
Fenoxycarb	>45	ND*	Spiromesifen	>305	ND*
Fipronil	54 - 2633	ND*	Spirotetramat	>341	ND*
Flonicamid	47 - 2633	ND*	Spiroxamine 1	19 - 2633	ND*
Fludioxonil	>307	ND*	Spiroxamine 2	25 - 2633	ND*
Hexythiazox	41 - 2633	ND*	Tebuconazole	348 - 2633	ND*
Imazalil	294 - 2633	ND*	Thiacloprid	44 - 2633	ND*
Imidacloprid	48 - 2633	ND*	Thiamethoxam	45 - 2633	ND*
Kresoxim-methyl	49 - 2633	ND*	Trifloxystrobin	46 - 2633	ND*

\* ND = None Detected (Defined by Dynamic Range of the method)


N/A

## FINAL APPROVAL



Taylor Brevik  
28-Jul-2021  
9:34 AM

PREPARED BY / DATE



Sam Smith  
28-Jul-2021  
9:37 AM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



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**SG25M**

Batch ID or Lot Number: <b>21265A</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>9/27/21</b>	
Matrix: Finished Product	Test ID: T000165368	Started: 9/24/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 09/23/2021 @ 11:41 AM	Sampler ID: N/A

**MICROBIAL CONTAMINANTS DETERMINATION**

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
<b>Total Aerobic Count*</b>	TM-26, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>3</sup> CFU/g	1.5x10 <sup>5</sup> CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
<b>Total Coliforms*</b>	TM-27, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>E. coli (STEC)</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
<b>Salmonella</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	

*Brianne Maillot*  
 Brianne Maillot  
 9/27/2021  
 3:06:00 PM

*Tori King*  
 Tori King  
 9/27/2021  
 3:49:00 PM  
 APPROVED BY / DATE

PREPARED BY / DATE

**Definitions**

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

\* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples:  
 10<sup>2</sup> = 100 CFU  
 10<sup>3</sup> = 1,000 CFU  
 10<sup>4</sup> = 10,000 CFU  
 10<sup>5</sup> = 100,000 CFU

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**SG25M**


Batch ID or Lot Number: <b>21E0000847</b>	Test: <b>Metals</b>	Reported: <b>8/4/21</b>	
Matrix: Unit Co	Test ID: T000153157	Started: 7/28/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 07/22/2021 @ 10:29 AM	Sampler ID: N/A

**HEAVY METALS DETERMINATION**

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Arsenic	0.052 - 5.23	ND	Amendment to certificate T000153157, certificate updated to Colorado Compliance format.
Cadmium	0.044 - 4.42	ND	
Mercury	0.044 - 4.38	ND	
Lead	0.044 - 4.37	ND	

  
 Ryan Weems  
 4-Aug-21  
 10:45 AM

PREPARED BY / DATE

  
 Sam Smith  
 4-Aug-21  
 10:53 AM

APPROVED BY / DATE

**Definitions**

ND = None Detected (Defined by Dynamic Range of the method)

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**SG25M**

Batch ID or Lot Number: <b>21E0000847</b>	Test: <b>Mycotoxins</b>	Reported: <b>7/29/21</b>	
Matrix: Concentrate	Test ID: T000153159	Started: 7/28/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 07/22/2021 @ 10:29 AM	Sampler ID: N/A

**MYCOTOXIN DETERMINATION**

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.9 - 128.4	ND	N/A
Aflatoxin B1	1 - 32.5	ND	
Aflatoxin B2	1.1 - 32.5	ND	
Aflatoxin G1	1.1 - 31.2	ND	
Aflatoxin G2	1.2 - 30.8	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

  
 Sam Smith  
 29-Jul-21  
 8:42 AM

PREPARED BY / DATE

  
 Chris Jungling  
 29-Jul-21  
 3:32 PM

APPROVED BY / DATE

**Definitions**

\* ND = None Detected (Defined by Dynamic Range of the method)

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**SG25M**

Batch ID or Lot Number: <b>21E0000847</b>	Test: <b>Residual Solvents</b>	Reported: <b>7/28/21</b>	
Matrix: N/A	Test ID: T000153158	Started: 7/27/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 07/22/2021 @ 10:29 AM	Sampler ID: N/A

**RESIDUAL SOLVENTS DETERMINATION**

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
<b>Propane</b>	68 - 1352	*ND	
<b>Butanes</b> (Isobutane, n-Butane)	160 - 3194	*ND	
<b>Methanol</b>	56 - 1125	*ND	
<b>Pentane</b>	77 - 1537	*ND	
<b>Ethanol</b>	87 - 1747	*ND	
<b>Acetone</b>	88 - 1755	*ND	
<b>Isopropyl Alcohol</b>	94 - 1883	*ND	
<b>Hexane</b>	5 - 105	*ND	
<b>Ethyl Acetate</b>	88 - 1766	*ND	
<b>Benzene</b>	0 - 3	*ND	
<b>Heptanes</b>	84 - 1675	*ND	
<b>Toluene</b>	16 - 320	*ND	
<b>Xylenes</b> (m,p,o-Xylenes)	117 - 2338	*ND	

 Taylor Brevik  
28-Jul-21  
1:15 PM

 Sam Smith  
28-Jul-21  
1:19 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

\* ND = None Detected (Defined by Dynamic Range of the method)

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