

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Softgels  
**PRODUCT STRENGTH:** 25 mg CBD  
**TINCTURE BATCH:** 21217B  
**BEST BY DATE:** 06/24/2023  
**HEMP EXTRACT LOT:** 21E0000845

\*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	*NLT 25 mg / softgel	<b>32.219 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	<b>ND</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 Panel</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 Quantitation, † Parts Per Million ‡ Part Per Billion  
 CFU/g=Colony Forming Units per Gram  
 \*Nothing Less Than  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified Kayla Kolber 08/17/2021  
 Kayla Kolber Date  
 Quality Assurance Technician

## SG25


Batch ID or Lot Number: **21E0000845**      Test: **Potency**      Reported: **7/30/21**


Matrix:      Test ID:      Started:      USDA License:  
Unit      T000153142      7/28/21      N/A

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

## 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=0.548g
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	32.219	58.84	
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	ND	ND	
Cannabigerolic acid (CBGA)	0.069	0.201	ND	ND	
Cannabigerol (CBG)	0.017	0.048	2.071	3.78	
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	0.052*	0.09*	
Cannabichromenic Acid (CBCA)	0.027	0.078	ND	ND	
Cannabichromene (CBC)	0.029	0.085	ND	ND	
<b>Total Cannabinoids</b>			<b>34.342</b>	<b>62.72</b>	
Total Potential THC**			ND	ND	
Total Potential CBD**			32.219	58.84	

  
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.

Total THC = THC + (THCa \*(0.877)) and

Total CBD = CBD + (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

SG25

<b>Batch ID:</b>	21E0000845	<b>Test ID:</b>	T000153143
<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	42 - 2343	ND*	Malathion	282 - 2343	ND*
Acetamiprid	40 - 2343	ND*	Metalaxyl	39 - 2343	ND*
Abamectin	>256	ND*	Methiocarb	39 - 2343	ND*
Azoxystrobin	41 - 2343	ND*	Methomyl	41 - 2343	ND*
Bifenazate	39 - 2343	ND*	MGK 264 1	161 - 2343	ND*
Boscalid	40 - 2343	ND*	MGK 264 2	115 - 2343	ND*
Carbaryl	39 - 2343	ND*	Myclobutanil	44 - 2343	ND*
Carbofuran	43 - 2343	ND*	Naled	44 - 2343	ND*
Chlorantraniliprole	50 - 2343	ND*	Oxamyl	37 - 2343	ND*
Chlorpyrifos	43 - 2343	ND*	Paclobutrazol	43 - 2343	ND*
Clofentezine	273 - 2343	ND*	Permethrin	269 - 2343	ND*
Diazinon	278 - 2343	ND*	Phosmet	39 - 2343	ND*
Dichlorvos	>236	ND*	Prophos	249 - 2343	ND*
Dimethoate	40 - 2343	ND*	Propoxur	42 - 2343	ND*
E-Fenpyroximate	322 - 2343	ND*	Pyridaben	304 - 2343	ND*
Etofenprox	40 - 2343	ND*	Spinosad A	29 - 2343	ND*
Etoxazole	297 - 2343	ND*	Spinosad D	79 - 2343	ND*
Fenoxycarb	>40	ND*	Spiromesifen	>271	ND*
Fipronil	48 - 2343	ND*	Spirotetramat	>303	ND*
Flonicamid	42 - 2343	ND*	Spiroxamine 1	17 - 2343	ND*
Fludioxonil	>274	ND*	Spiroxamine 2	22 - 2343	ND*
Hexythiazox	36 - 2343	ND*	Tebuconazole	309 - 2343	ND*
Imazalil	262 - 2343	ND*	Thiacloprid	40 - 2343	ND*
Imidacloprid	43 - 2343	ND*	Thiamethoxam	40 - 2343	ND*
Kresoxim-methyl	43 - 2343	ND*	Trifloxystrobin	41 - 2343	ND*

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

N/A

## FINAL APPROVAL



 Taylor Brevik  
 28-Jul-2021  
 9:34 AM



 Sam Smith  
 28-Jul-2021  
 9:37 AM

PREPARED BY / DATE

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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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**SG25**


Batch ID or Lot Number: <b>21217B</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>8/13/21</b>
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Matrix: Finished Product	Test ID: T000156148	Started: 8/9/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 08/09/2021 @ 10:26 AM	Sampler ID: N/A
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**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	

 Robert Belfon  
8/13/2021  
12:25:00 PM

 Jackson Osaghae-Nosa  
8/13/2021  
2:24:00 PM

PREPARED BY / DATE

APPROVED 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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**SG25**

Batch ID or Lot Number: <b>21E0000845</b>	Test: <b>Metals</b>	Reported: <b>8/4/21</b>	
Matrix: Unit Co	Test ID: T000153145	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 T000153145, 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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**SG25**

Batch ID or Lot Number: <b>21E0000845</b>	Test: <b>Mycotoxins</b>	Reported: <b>7/29/21</b>	
Matrix: Concentrate	Test ID: T000153147	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	4.2 - 138.3	ND	N/A
Aflatoxin B1	1.1 - 35	ND	
Aflatoxin B2	1.1 - 35	ND	
Aflatoxin G1	1.2 - 33.6	ND	
Aflatoxin G2	1.2 - 33.2	ND	
<b>Total Aflatoxins (B1, B2, G1, and G2)</b>		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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**SG25**

Batch ID or Lot Number: <b>21E0000845</b>	Test: <b>Residual Solvents</b>	Reported: <b>7/28/21</b>	
Matrix: N/A	Test ID: T000153146	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>	140 - 2796	*ND	
<b>Butanes</b> (Isobutane, n-Butane)	330 - 6602	*ND	
<b>Methanol</b>	116 - 2325	*ND	
<b>Pentane</b>	159 - 3176	*ND	
<b>Ethanol</b>	180 - 3610	*ND	
<b>Acetone</b>	181 - 3628	*ND	
<b>Isopropyl Alcohol</b>	195 - 3892	*ND	
<b>Hexane</b>	11 - 218	*ND	
<b>Ethyl Acetate</b>	182 - 3649	*ND	
<b>Benzene</b>	0 - 7	*ND	
<b>Heptanes</b>	173 - 3462	*ND	
<b>Toluene</b>	33 - 662	*ND	
<b>Xylenes</b> (m,p,o-Xylenes)	242 - 4833	*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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