CERTIFICATE OF ANALYSIS

PRODUCT NAME: Full Spectrum CBD Softgels
PRODUCT STRENGTH: 25 mg CBD
BATCH: 21342A
BEST BY DATE: HEMP 11/2023
EXTRACT LOT: 21BL035481

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber	PASS
Odor	Internal	No Odor	PASS
Appearance	Internal	Dry, ovoid softgel capsules in container with lid and shrink-band	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	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
Potency - Total CBD	HPLC-UV DAD	*LOQ: ≥ 25 mg / softgel	**26.21 mg**	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.3% (full spectrum)	**ND**	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	**Below LOQ**	PASS
Microbial Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 **CFU/25 gram	**Absent**	PASS
Microbial Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	**Absent**	PASS
Microbial Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^2 CFU/gram	**Below LOQ**	PASS
Microbial Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^2 CFU/gram	**Below LOQ**	PASS
Microbial Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10^3 CFU/gram	**Below LOQ**	PASS
Heavy Metals	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	**Below LOQ**	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb†† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	**Below LOQ**	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	**Below LOQ**	PASS

* Level of Quantification
**CFU/g=Colony Forming Units per Gram
† Parts Per Million †† Part Per Billion

Values expressed using scientific notation.
Examples:
10^2=100
10^3=1,000

Quality Certified Keegan Schlittler 12/15/2021
Keegan Schlittler
Quality Assurance Manager
Date

botanacor

Official Compliance: Colorado
CERTIFICATE OF ANALYSIS

FS 25 mg

Batch ID or Lot Number:	Test:	Reported:	
21BL035481	**Potency**	**11/22/21**	
Matrix:	Test ID:	Started:	USDA License:
Unit	T000176863	11/19/21	N/A
Status:	Method:	Received:	Sampler ID:
N/A	TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis (Colorado Panel)	11/17/2021 @ 09:42 AM	N/A

CANNABINOID PROFILE

Compound	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.209	0.694	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.236	0.783	ND	ND
Cannabidiolic acid (CBDA)	0.312	0.807	ND	ND
Cannabidiol (CBD)	0.304	0.786	26.205	45.52
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.260	0.862	ND	ND
Cannabinolic Acid (CBNA)	0.149	0.494	ND	ND
Cannabinol (CBN)	0.068	0.226	0.583	1.01
Cannabigerolic acid (CBGA)	0.218	0.724	ND	ND
Cannabigerol (CBG)	0.052	0.173	3.215	5.58
Tetrahydrocannabivarinic Acid (THCVA)	0.185	0.612	ND	ND
Tetrahydrocannabivarin (THCV)	0.048	0.157	ND	ND
Cannabidivarinic Acid (CBDVA)	0.130	0.336	ND	ND
Cannabidivarin (CBDV)	0.072	0.186	0.152*	0.26*
Cannabichromenic Acid (CBCA)	0.084	0.279	ND	ND
Cannabichromene (CBC)	0.092	0.305	0.119*	0.21*
Total Cannabinoids			**30.274**	**52.58**
Total Potential THC**			ND	ND
Total Potential CBD**			26.205	45.52

Notes

of Servings = 1
Sample Weight=0.576g

Ryan Weems
22-Nov-2021
04:06 PM
PREPARED BY / DATE

Sam Smith
22-Nov-21
4:17 PM
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 the decarboxylation step:
Total THC = THC + (THCa *(0.877)) and
Total CBD = CBD + (CBDa *(0.877))
Total Cannabinoid result reflects the absolute sum of all cannabinoids detected.
ND = None Detected (Defined by Dynamic Range of the method)

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Certificate #4329.02

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CERTIFICATE OF ANALYSIS

FS 25 mg

Batch ID or Lot Number:	Test:	Reported:	
21BL035481	**Pesticides**	**11/19/21**	
Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000176864	11/18/21	N/A
Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	11/17/2021 @ 09:42 AM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	38	ND	Fenoxycarb	43	ND	Paclobutrazol	41	ND
Acetamiprid	38	ND	Fipronil	37	ND	Permethrin	277	ND
Avermectin	282	ND	Flonicamid	35	ND	Phosmet	43	ND
Azoxystrobin	44	ND	Fludioxonil	305	ND	Prophos	294	ND
Bifenazate	44	ND	Hexythiazox	37	ND	Propoxur	41	ND
Boscalid	43	ND	Imazalil	278	ND	Pyridaben	290	ND
Carbaryl	36	ND	Imidacloprid	44	ND	Spinosad A	34	ND
Carbofuran	40	ND	Kresoxim-methyl	150	ND	Spinosad D	53	ND
Chlorantraniliprole	43	ND	Malathion	292	ND	Spiromesifen	261	ND
Chlorpyrifos	500	ND	Metalaxyl	41	ND	Spirotetramat	287	ND
Clofentezine	291	ND	Methiocarb	40	ND	Spiroxamine 1	18	ND
Diazinon	270	ND	Methomyl	40	ND	Spiroxamine 2	23	ND
Dichlorvos	255	ND	MGK 264 1	161	ND	Tebuconazole	297	ND
Dimethoate	39	ND	MGK 264 2	118	ND	Thiacloprid	37	ND
E-Fenpyroximate	284	ND	Myclobutanil	42	ND	Thiamethoxam	39	ND
Etofenprox	41	ND	Naled	44	ND	Trifloxystrobin	43	ND
Etoxazole	289	ND	Oxamyl	1500	ND			

K Winternheimer

Karen Winternheimer
11/19/2021
12:16:00 PM

PREPARED BY / DATE

Samantha Smith

Sam Smith
11/19/2021
12:21:00 PM

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification
ppb = Parts per Billion

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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SG25FS

Batch ID or Lot Number:	Test:	Reported:
21342A	**Microbial Contaminants**	**12/15/21**

Matrix:	Test ID:	Started:	USDA License:
Finished Product	T000181640	12/10/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	12/09/2021 @ 01:35 PM	N/A

MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26, Culture Plating	10^2 CFU/g	10^3 CFU/g	1.5x10^5 CFU/g	None Detected
Total Coliforms*	TM-27, Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	None Detected
Total Yeast and Mold*	TM-24, Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	None Detected
E. coli (STEC)	TM-25, PCR	1 CFU/25 g	NA	NA	Absent
Salmonella	TM-25, PCR	1 CFU/25 g	NA	NA	Absent

Notes

Free from visual mold, mildew, and foreign matter

Carly Bader
12/15/2021
1:50:00 PM
PREPARED BY / DATE

Eden Thompson-Wright
12/15/2021
1:59:00 PM
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:
10^2 = 100 CFU
10^3 = 1,000 CFU
10^4 = 10,000 CFU
10^5 = 100,000 CFU

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FS 25 mg

Batch ID or Lot Number:	Test:	Reported:
21BL035481	**Metals**	**11/18/21**

Matrix:	Test ID:	Started:	USDA License:
Unit Co	T000176866	11/18/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals (Colorado Panel)	11/17/2021 @ 09:42 AM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.041 - 4.07	ND	
Cadmium	0.043 - 4.33	ND	
Mercury	0.045 - 4.48	ND	
Lead	0.045 - 4.45	ND	

Daniel Weidensaul
18-Nov-21
6:23 PM
PREPARED BY / DATE

Sam Smith
18-Nov-21
6:26 PM
APPROVED BY / DATE

Definitions

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

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Certificate #4329.02

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FS 25 mg

Batch ID or Lot Number:	Test:	Reported:
21BL035481	**Mycotoxins**	**11/22/21**

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000176869	11/19/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	11/17/2021 @ 09:42 AM	N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.9 - 131.2	ND	N/A
Aflatoxin B1	1 - 32.7	ND	
Aflatoxin B2	1 - 32.2	ND	
Aflatoxin G1	1 - 32.8	ND	
Aflatoxin G2	1.1 - 31.9	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Samantha Smith
Sam Smith
22-Nov-21
10:08 AM
PREPARED BY / DATE

Ryan Weems
Ryan Weems
22-Nov-21
10:10 AM
APPROVED BY / DATE

Definitions

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

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Certificate #4329.02

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CERTIFICATE OF ANALYSIS

Prepared for:

FS 25 mg

Batch ID or Lot Number:	Test:	Reported:
21BL035481	**Residual Solvents**	**11/21/21**

Matrix:	Test ID:	Started:
N/A	T000176867	11/19/21

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents (Colorado Panel)	11/17/2021 @ 09:42 AM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1964	*ND	
Butanes (Isobutane, n-Butane)	197 - 3930	*ND	
Methanol	56 - 1129	*ND	
Pentane	80 - 1592	*ND	
Ethanol	89 - 1776	*ND	
Acetone	94 - 1887	*ND	
Isopropyl Alcohol	100 - 2000	*ND	
Hexane	5 - 106	*ND	
Ethyl Acetate	85 - 1707	*ND	
Benzene	0.2 - 3.1	*ND	
Heptanes	92 - 1836	*ND	
Toluene	17 - 350	*ND	
Xylenes (m,p,o-Xylenes)	132 - 2646	*ND	

Hannah Wright
21-Nov-21
11:36 AM

PREPARED BY / DATE

Sam Smith
21-Nov-21
11:40 AM

APPROVED BY / DATE

Definitions

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

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