DANU

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Certified Organic - CBD Tincture - Mint
PRODUCT STRENGTH: 2250 mg / bottle
TINCTURE BATCH: 22033A
BEST BY DATE: 8/2/2023
HEMP EXTRACT LOT: C0819-001

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber.	PASS
Odor	Internal	Characteristic - Olive and Hemp, Minty.	PASS
Appearance	Internal	Golden to Amber oil in brown glass bottle with dropper.	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**: ≥ 2250 mg / bottle	**2787.07 mg**	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	**Below LOQ**	PASS
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 < 5 ppb	**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
**Colony Forming Units per Gram
† Parts Per Million †† Part Per Billion

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

Quality Certified — Cody Elbrader — 02/8/2022
Cody Elbrader
Quality Assurance Technician
Date

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Official Compliance: Colorado
CERTIFICATE OF ANALYSIS

Batch ID or Lot Number:	Test:	Reported:
C0819-001	**Potency**	**8/30/21**

Matrix:	Test ID:	Started:	USDA License:
Unit	T000158869	8/27/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis (Colorado Panel)	08/20/2021 @ 01:50 PM	N/A

CANNABINOID PROFILE

Compound	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	11.429	39.121	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	12.899	44.154	ND	ND
Cannabidiolic acid (CBDA)	16.632	46.600	ND	ND
Cannabidiol (CBD)	16.216	45.435	2787.071	92.90
Delta 8-Tetrahydrocannabinol (Delta 8THC)	14.203	48.618	ND	ND
Cannabinolic Acid (CBNA)	8.134	27.843	ND	ND
Cannabinol (CBN)	3.721	12.735	ND	ND
Cannabigerolic acid (CBGA)	11.922	40.809	ND	ND
Cannabigerol (CBG)	2.852	9.762	173.980	5.80
Tetrahydrocannabivarinic Acid (THCVA)	10.081	34.506	ND	ND
Tetrahydrocannabivarin (THCV)	2.594	8.879	ND	ND
Cannabidivarinic Acid (CBDVA)	6.938	19.439	ND	ND
Cannabidivarin (CBDV)	3.835	10.746	8.714*	0.29*
Cannabichromenic Acid (CBCA)	4.594	15.726	ND	ND
Cannabichromene (CBC)	5.023	17.194	6.574*	0.22*
Total Cannabinoids			**2976.339**	**99.21**
Total Potential THC**			ND	ND
Total Potential CBD**			2787.071	92.90

Notes

of Servings = 1
Sample Weight=30g

Daniel Weidensaul
30-Aug-2021
04:14 PM
PREPARED BY / DATE

Ryan Weems
30-Aug-21
4:15 PM
APPROVED BY / DATE

Definitions

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)
* Indicates a value below the Limit of Quantitiation (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)

CDPHE Certified

Certificate #4329.02

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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CERTIFICATE OF ANALYSIS

Batch ID or Lot Number:	Test:	Reported:
C0819-001	**Pesticides**	**8/26/21**

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000158870	8/24/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	08/20/2021 @ 01:50 PM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	28	ND	**Fenoxycarb**	41	ND	**Paclobutrazol**	43	ND
Acetamiprid	30	ND	**Fipronil**	55	ND	**Permethrin**	309	ND
Avermectin	273	ND	**Flonicamid**	58	ND	**Phosmet**	28	ND
Azoxystrobin	38	ND	**Fludioxonil**	370	ND	**Prophos**	370	ND
Bifenazate	42	ND	**Hexythiazox**	28	ND	**Propoxur**	34	ND
Boscalid	41	ND	**Imazalil**	293	ND	**Pyridaben**	291	ND
Carbaryl	31	ND	**Imidacloprid**	31	ND	**Spinosad A**	30	ND
Carbofuran	33	ND	**Kresoxim-methyl**	150	ND	**Spinosad D**	60	ND
Chlorantraniliprole	16	ND	**Malathion**	308	ND	**Spiromesifen**	226	ND
Chlorpyrifos	500	ND	**Metalaxyl**	39	ND	**Spirotetramat**	334	ND
Clofentezine	287	ND	**Methiocarb**	42	ND	**Spiroxamine 1**	21	ND
Diazinon	292	ND	**Methomyl**	29	ND	**Spiroxamine 2**	22	ND
Dichlorvos	300	ND	**MGK 264 1**	175	ND	**Tebuconazole**	339	ND
Dimethoate	39	ND	**MGK 264 2**	138	ND	**Thiacloprid**	36	ND
E-Fenpyroximate	274	ND	**Myclobutanil**	13	ND	**Thiamethoxam**	34	ND
Etofenprox	40	ND	**Naled**	42	ND	**Trifloxystrobin**	35	ND
Etoxazole	301	ND	**Oxamyl**	1500	ND			

Samantha Smith

Sam Smith
8/26/2021
4:08:00 PM

PREPARED BY / DATE

K Winternheimer

Karen Winternheimer
8/26/2021
4:11:00 PM

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification
ppb = Parts per Billion

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ilac-MRA A2LA ACCREDITED
Certificate #4329.02

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CERTIFICATE OF ANALYSIS

OTM2250

Batch ID or Lot Number:	Test:	Reported:
22033A	**Microbial Contaminants**	**2/7/22**

Matrix:	Test ID:	Started:	USDA License:
Finished Product	T000190945	2/4/22	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	02/04/2022 @ 10:55 AM	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

Eden Thompson-Wright
2/7/2022
4:31:00 PM

PREPARED BY / DATE

Brett Hudson
2/7/2022
4:39:00 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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CERTIFICATE OF ANALYSIS

Batch ID or Lot Number:	Test:	Reported:
C0819-001	**Metals**	**8/30/21**

Matrix:	Test ID:	Started:	USDA License:
Unit Co	T000158872	8/27/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals (Colorado Panel)	08/20/2021 @ 01:50 PM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.043 - 4.27	ND
Cadmium	0.043 - 4.34	ND
Mercury	0.044 - 4.40	ND
Lead	0.041 - 4.06	ND

Notes

Ryan Weems
30-Aug-21
11:16 AM
PREPARED BY / DATE

Daniel Weidensaul
30-Aug-21
11:26 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

Batch ID or Lot Number:	Test:	Reported:
C0819-001	**Mycotoxins**	**9/1/21**

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000158874	8/31/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	08/20/2021 @ 01:50 PM	N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)
Ochratoxin A	3.2 - 131.7	ND
Aflatoxin B1	1.2 - 33.7	ND
Aflatoxin B2	1.2 - 33.2	ND
Aflatoxin G1	1.1 - 32.7	ND
Aflatoxin G2	1.2 - 33.5	ND
Total Aflatoxins (B1, B2, G1, and G2)		ND

Notes

N/A

Sam Smith
1-Sep-21
1:46 PM
PREPARED BY / DATE

Alex Smith
1-Sep-21
1:59 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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CERTIFICATE OF ANALYSIS

Batch ID or Lot Number:	Test:	Reported:
C0819-001	**Residual Solvents**	**8/27/21**

Matrix:	Test ID:	Started:	USDA License:
N/A	T000158873	8/26/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents (Colorado Panel)	08/20/2021 @ 01:50 PM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	76 - 1516	*ND
Butanes (Isobutane, n-Butane)	145 - 2895	*ND
Methanol	55 - 1095	*ND
Pentane	80 - 1606	*ND
Ethanol	87 - 1748	*ND
Acetone	91 - 1823	*ND
Isopropyl Alcohol	98 - 1964	*ND
Hexane	6 - 111	*ND
Ethyl Acetate	92 - 1836	*ND
Benzene	0 - 4	*ND
Heptanes	87 - 1741	*ND
Toluene	17 - 332	*ND
Xylenes (m,p,o-Xylenes)	120 - 2399	*ND

Notes

Ryan Weems
27-Aug-21
11:52 AM

PREPARED BY / DATE

Sam Smith
27-Aug-21
12:05 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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