

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** \*Certified Organic CBD Tincture - Natural  
**PRODUCT STRENGTH:** 2250 mg / bottle  
**TINCTURE BATCH:** 21263A  
**BEST BY DATE:** 03/20/2023  
**HEMP EXTRACT LOT:** C0819-001

Prepared for:  
 Astraèa & Co  
 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

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

### Physical Attributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber	PASS
Odor	Internal	Characteristic - Olive and Hemp	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
<b>Potency - Total CBD</b>	HPLC-UV DAD	LOQ**: $\geq 2250$ mg / bottle	<b>2787.07 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	<b>Below LOQ</b>	PASS
<b>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 $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^3$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): $\leq 1.5$ ppm† Cadmium (Cd): $\leq 0.5$ ppm Lead (Pb): $\leq 0.5$ ppm Mercury (Hg): $\leq 1.5$ ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb†† Afltoxin B1 < 5 ppb Ochratoxin < 5 ppb	<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

\*Only applies to products with labels claiming certified organic

\*\*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

  
 Kayla Kolber  
 Quality Assurance Technician

09/24/2021

Date

Prepared for:  
Astraèa & Co  
50 E. Ridgewood Ave. STE 303  
Ridgewood, NJ 07450

### 27364

Batch ID or Lot Number: **C0819-001**      Test: **Potency**      Reported: **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)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	11.429	39.121	ND	ND	# of Servings = 1 Sample Weight=30g
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*	
<b>Total Cannabinoids</b>			<b>2976.339</b>	<b>99.21</b>	
Total Potential THC**			ND	ND	
Total Potential CBD**			2787.071	92.90	

  
Daniel Weidensaul  
30-Aug-2021  
04:14 PM

  
Ryan Weems  
30-Aug-21  
4:15 PM

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

Prepared for:  
 Astraèa & Co  
 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

**27364**

Batch ID or Lot Number: <b>C0819-001</b>	Test: <b>Pesticides</b>	Reported: <b>8/26/21</b>	Location: 1250 S Capital of Texas Highway, Build West Lake Hills, TX 78746-6446
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Matrix: Concentrate	Test ID: T000158870	Started: 8/24/21	USDA License: N/A
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Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 08/20/2021 @ 01:50 PM	Sampler ID: N/A
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## 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			

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

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

PREPARED BY / DATE

APPROVED BY / DATE

### Definitions

LOQ = Limit of Quantification  
 ppb = Parts per Billion

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 Ridgewood, NJ 07450

**OTNAT2250**

Batch ID or Lot Number: <b>21263A</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>9/24/21</b>	
Matrix: Finished Product	Test ID: T000164758	Started: 9/21/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 09/21/2021 @ 11:09 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	

	Brett Hudson 9/24/2021 1:26:00 PM		Tori King 9/24/2021 2:20:00 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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 Ridgewood, NJ 07450

**27364**

Batch ID or Lot Number: <b>C0819-001</b>	Test: <b>Metals</b>	Reported: <b>8/30/21</b>	
Matrix: Unit Co	Test ID: T000158872	Started: 8/27/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS); Heavy Metals (Colorado Panel)	Received: 08/20/2021 @ 01:50 PM	Sampler ID: N/A

## HEAVY METALS DETERMINATION

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


 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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**27364**

 Prepared for:  
 Astraèa & Co  
 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450


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

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


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

### MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.2 - 131.7	ND	N/A
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	
<b>Total Aflatoxins (B1, B2, G1, and G2)</b>		ND	

  
 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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27364


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


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

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

### RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
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	

 Ryan Weems  
27-Aug-21  
11:52 AM

 Sam Smith  
27-Aug-21  
12:05 PM

PREPARED BY / DATE

APPROVED BY / DATE

#### Definitions

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

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