

CERTIFICATE OF ANALYSIS

PRODUCT NAME: *Organic Full Spectrum CBD Tincture -Key Lime
PRODUCT STRENGTH: 900 mg / bottle
TINCTURE BATCH: 22073B
BEST BY DATE: 9/10/2023
HEMP EXTRACT LOT: CO727-001

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 - Coconut and Hemp, Key Lime. | 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 |

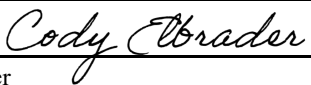
Review of Third-Party Analysis

| Panel | Method | Specification | Results* | Pass/Fail |
|---|-----------------|--|------------------|-----------|
| Potency - Total CBD | HPLC-UV DAD | LOQ*: ≥ 450 mg / bottle | 963.63 mg | PASS |
| Potency - D9-THC | HPLC-UV DAD | LOQ: $<0.3\%$ total THC (Full spectrum) | 0.097 | 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†† Aflatoxin B1 <20 ppb Ochratoxin <20 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
 Quality Assurance Technician

03/15/2022
 Date

27275

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


 Batch ID or Lot Number: **C0727-001** Test: **Potency** Reported: **8/17/21**


Matrix: Solution Test ID: T000155479 Started: 8/12/21 USDA License: N/A

Status: N/A Method: TM14 (HPLC-DAD): Potency - Standard Cannabinoid Analysis (Colorado Panel) Received: 08/05/2021 @ 12:37 PM Sampler ID: N/A

CANNABINOID PROFILE

| Compound | LOD (mg/mL) | LOQ (mg/mL) | Result (mg/mL) | Result (mg/g) | Notes |
|--|-------------|-------------|----------------|---------------|---------------------|
| Delta 9-Tetrahydrocannabinolic acid (THCA-A) | 0.132 | 0.438 | ND | ND | Density = 0.945g/mL |
| Delta 9-Tetrahydrocannabinol (Delta 9THC) | 0.149 | 0.494 | 0.970 | 1.03 | |
| Cannabidiolic acid (CBDA) | 0.220 | 0.524 | ND | ND | |
| Cannabidiol (CBD) | 0.214 | 0.511 | 32.121 | 33.99 | |
| Delta 8-Tetrahydrocannabinol (Delta 8THC) | 0.164 | 0.544 | ND | ND | |
| Cannabinolic Acid (CBNA) | 0.094 | 0.312 | ND | ND | |
| Cannabinol (CBN) | 0.043 | 0.143 | 0.098* | 0.1* | |
| Cannabigerolic acid (CBGA) | 0.138 | 0.457 | ND | ND | |
| Cannabigerol (CBG) | 0.033 | 0.109 | 2.561 | 2.71 | |
| Tetrahydrocannabivarinic Acid (THCVA) | 0.116 | 0.386 | ND | ND | |
| Tetrahydrocannabivarin (THCV) | 0.030 | 0.099 | ND | ND | |
| Cannabidivarinic Acid (CBDVA) | 0.092 | 0.218 | ND | ND | |
| Cannabidivarin (CBDV) | 0.051 | 0.121 | 0.183 | 0.19 | |
| Cannabichromenic Acid (CBCA) | 0.053 | 0.176 | ND | ND | |
| Cannabichromene (CBC) | 0.058 | 0.192 | ND | ND | |
| Total Cannabinoids | | | 35.933 | 38.02 | |
| Total Potential THC** | | | 0.970 | 1.03 | |
| Total Potential CBD** | | | 32.121 | 33.99 | |


 Daniel Weidensaul
 17-Aug-2021
 01:50 PM


 Taylor Brevik
 17-Aug-21
 1:56 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.



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Certificate #4329.02

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

27275

 Batch ID or Lot Number: **C0727-001** Test: **Pesticides** Reported: **8/11/21**

Matrix: Concentrate Test ID: T000155480 Started: 8/10/21 USDA License: N/A

Status: N/A Method: TM17(LC-QQQ LC MS/MS): Received: 08/05/2021 @ 12:37 PM Sampler ID: N/A

PESTICIDE DETERMINATION

| Compound | LOQ (ppm) | Result (ppm) | Compound | LOQ (ppm) | Result (ppm) | Compound | LOQ (ppm) | Result (ppm) |
|---------------------|-----------|--------------|-----------------|-----------|--------------|-----------------|-----------|--------------|
| Acephate | 54 | ND | Fenoxycarb | 54 | ND | Paclobutrazol | 54 | ND |
| Acetamiprid | 54 | ND | Fipronil | 54 | ND | Permethrin | 324 | ND |
| Avermectin | 324 | ND | Flonicamid | 54 | ND | Phosmet | 54 | ND |
| Azoxystrobin | 54 | ND | Fludioxonil | 324 | ND | Prophos | 324 | ND |
| Bifenazate | 54 | ND | Hexythiazox | 54 | ND | Propoxur | 54 | ND |
| Boscalid | 54 | ND | Imazalil | 324 | ND | Pyridaben | 324 | ND |
| Carbaryl | 54 | ND | Imidacloprid | 54 | ND | Spinosad A | 54 | ND |
| Carbofuran | 54 | ND | Kresoxim-methyl | 150 | ND | Spinosad D | 324 | ND |
| Chlorantraniliprole | 54 | ND | Malathion | 324 | ND | Spiromesifen | 324 | ND |
| Chlorpyrifos | 500 | ND | Metalaxyl | 54 | ND | Spirotetramat | 324 | ND |
| Clofentezine | 324 | ND | Methiocarb | 54 | ND | Spiroxamine 1 | 54 | ND |
| Diazinon | 324 | ND | Methomyl | 54 | ND | Spiroxamine 2 | 54 | ND |
| Dichlorvos | 324 | ND | MGK 264 1 | 324 | ND | Tebuconazole | 324 | ND |
| Dimethoate | 54 | ND | MGK 264 2 | 324 | ND | Thiacloprid | 54 | ND |
| E-Fenpyroximate | 324 | ND | Myclobutanil | 54 | ND | Thiamethoxam | 54 | ND |
| Etofenprox | 54 | ND | Naled | 54 | ND | Trifloxystrobin | 54 | ND |
| Etoxazole | 324 | ND | Oxamyl | 1500 | ND | | | |



 Taylor Brevik
 8/11/2021
 4:08:00 PM



 Sam Smith
 8/11/2021
 4:11:00 PM

PREPARED BY / DATE

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

OFTKL900


| | | |
|--|--|-----------------------------|
| Batch ID or Lot Number: 22073B | Test: Microbial Contaminants | Reported: 3/14/22 |
|--|--|-----------------------------|


| | | | |
|-----------------------------|------------------------|---------------------|----------------------|
| Matrix: Finished Product | Test ID: T000197762 | Started: 3/11/22 | USDA License: N/A |
|-----------------------------|------------------------|---------------------|----------------------|

| | | | |
|----------------|--|------------------------------------|--------------------|
| Status: N/A | Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial | Received: 03/11/2022 @ 11:17 AM | Sampler ID: N/A |
|----------------|--|------------------------------------|--------------------|

MICROBIAL CONTAMINANTS DETERMINATION

| Contaminant | Method | LOD | LLOQ | ULOQ | Result | Notes |
|------------------------------|------------------------|--------------------------|-----------------------|---------------------------|---------------|---|
| Total Aerobic Count* | TM-26, Culture Plating | 10 ² CFU/g | 10 ³ CFU/g | 1.5x10 ⁵ CFU/g | None Detected | Free from visual mold, mildew, and foreign matter |
| 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 | |
| STEC | TM-25, PCR | 10 ⁰ CFU/25 g | NA | NA | Absent | |
| Salmonella | TM-25, PCR | 10 ⁰ CFU/25 g | NA | NA | Absent | |


 Jackson Osaghae-Nosa
 3/14/2022
 3:29:00 PM


 Eden Thompson-Wright
 3/14/2022
 4:22:00 PM

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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: 10² = 100 CFU
 10³ = 1,000 CFU
 10⁴ = 10,000 CFU
 10⁵ = 100,000 CFU

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 Ridgewood, NJ 07450

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| | | | |
|---|--|------------------------------------|----------------------|
| Batch ID or Lot Number: C0727-001 | Test: Metals | Reported: 8/13/21 | |
| Matrix: Unit Co | Test ID: T000155482 | Started: 8/12/21 | USDA License: N/A |
| Status: N/A | Method: TM19 (ICP-MS); Heavy Metals (Colorado Panel) | Received: 08/05/2021 @ 12:37 PM | Sampler ID: N/A |

HEAVY METALS DETERMINATION

| Compound | Dynamic Range (ppb) | Result (ppb) | Notes |
|----------|---------------------|--------------|-------|
| Arsenic | 0.044 - 4.39 | ND | |
| Cadmium | 0.048 - 4.78 | ND | |
| Mercury | 0.044 - 4.38 | ND | |
| Lead | 0.044 - 4.38 | ND | |


 Sam Smith
 13-Aug-21
 1:11 PM

PREPARED BY / DATE


 Daniel Weidensaul
 13-Aug-21
 1:14 PM

APPROVED BY / DATE

Definitions

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

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 Ridgewood, NJ 07450

27275


| | | | |
|---|---|------------------------------------|----------------------|
| Batch ID or Lot Number: C0727-001 | Test: Mycotoxins | Reported: 8/12/21 | |
| Matrix: Concentrate | Test ID: T000155484 | Started: 8/11/21 | USDA License: N/A |
| Status: N/A | Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel) | Received: 08/05/2021 @ 12:37 PM | Sampler ID: N/A |

MYCOTOXIN DETERMINATION

| Compound | Dynamic Range (ppb) | Result (ppb) | Notes |
|--|---------------------|--------------|-------|
| Ochratoxin A | 5.2 - 139.9 | ND | N/A |
| Aflatoxin B1 | 1 - 36.2 | ND | |
| Aflatoxin B2 | 1.1 - 35.4 | ND | |
| Aflatoxin G1 | 1 - 35.6 | ND | |
| Aflatoxin G2 | 1.2 - 34.3 | ND | |
| Total Aflatoxins (B1, B2, G1, and G2) | | ND | |


 Taylor Brevik
 12-Aug-21
 2:47 PM

PREPARED BY / DATE


 Sam Smith
 12-Aug-21
 2:50 PM

APPROVED BY / DATE

Definitions

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

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 50 E. Ridgewood Ave. STE 303
 Ridgewood, NJ 07450


27275

| | | | |
|---|--|------------------------------------|----------------------|
| Batch ID or Lot Number: C0727-001 | Test: Residual Solvents | Reported: 8/12/21 | |
| Matrix: N/A | Test ID: T000155483 | Started: 8/11/21 | USDA License: N/A |
| Status: N/A | Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel) | Received: 08/05/2021 @ 12:37 PM | Sampler ID: N/A |

RESIDUAL SOLVENTS DETERMINATION

| Solvent | Dynamic Range (ppm) | Result (ppm) | Notes |
|---|---------------------|--------------|-------|
| Propane | 79 - 1585 | *ND | |
| Butanes (Isobutane, n-Butane) | 149 - 2976 | *ND | |
| Methanol | 55 - 1102 | *ND | |
| Pentane | 81 - 1628 | *ND | |
| Ethanol | 87 - 1740 | *ND | |
| Acetone | 90 - 1792 | *ND | |
| Isopropyl Alcohol | 99 - 1978 | *ND | |
| Hexane | 6 - 110 | *ND | |
| Ethyl Acetate | 91 - 1819 | *ND | |
| Benzene | 0 - 4 | *ND | |
| Heptanes | 86 - 1728 | *ND | |
| Toluene | 16 - 329 | *ND | |
| Xylenes (m,p,o-Xylenes) | 121 - 2429 | *ND | |

 Karen Winternheimer
 12-Aug-21
 3:07 PM

 Ryan Weems
 12-Aug-21
 3:09 PM

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Definitions

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

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