

CERTIFICATE OF ANALYSIS

| | |
|--------------------------|-----------------------------|
| PRODUCT NAME: | Organic CBD Tincture - Mint |
| PRODUCT STRENGTH: | 1350mg |
| TINCTURE BATCH: | 220701B |
| BEST BY DATE: | 7/1/2024 |
| HEMP EXTRACT LOT: | BCA-000390-220607 |

Physical Attributes

| Test | Method | Specification | Results |
|-------------------------|--------------|--|---------|
| Color | Joy Internal | Golden to Amber | PASS |
| Odor | Joy Internal | Characteristic - Olive and Hemp, Minty | PASS |
| Appearance | Joy Internal | Golden to Amber oil in brown glass bottle with dropper. | 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 |
|---|-----------------|--|------------------|-----------|
| Potency - Total CBD | HPLC-UV DAD | LOQ*: ≥ product strength mg / bottle | 47.6mg | PASS |
| Potency - D9-THC | HPLC-UV DAD | LOQ: <0.01% (broad spectrum) | Below LOQ | 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 < 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:
 10²=100
 10³=1,000

Quality Certified  7/28/22

Name Date

1350 BS Mint

| | | | |
|------------------------------------|---|-------------------------------|----------------------|
| Batch ID or Lot Number: 220701B | Test: Potency | Reported: 19Jul2022 | USDA License: N/A |
| Matrix: Solution | Test ID: T000212957 | Started: 07Jul2022 | Sampler ID: N/A |
| | Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis | Received: 06Jul2022 | Status: Active |

Cannabinoids

| | LOD (mg/mL) | LOQ (mg/mL) | Result (mg/mL) | Result (mg/g) | Notes |
|--|-------------|-------------|----------------|---------------|-----------------|
| Cannabichromene (CBC) | 0.070 | 0.212 | ND | ND | Density = 1g/mL |
| Cannabichromenic Acid (CBCA) | 0.064 | 0.194 | ND | ND | |
| Cannabidiol (CBD) | 0.167 | 0.535 | 51.846 | 51.85 | |
| Cannabidiolic Acid (CBDA) | 0.172 | 0.549 | ND | ND | |
| Cannabidivarin (CBDV) | 0.040 | 0.127 | 0.208 | 0.21 | |
| Cannabidivarinic Acid (CBDVA) | 0.072 | 0.229 | ND | ND | |
| Cannabigerol (CBG) | 0.040 | 0.120 | 3.564 | 3.56 | |
| Cannabigerolic Acid (CBGA) | 0.165 | 0.503 | ND | ND | |
| Cannabinol (CBN) | 0.052 | 0.157 | ND | ND | |
| Cannabinolic Acid (CBNA) | 0.113 | 0.343 | ND | ND | |
| Delta 8-Tetrahydrocannabinol (Delta 8-THC) | 0.197 | 0.599 | ND | ND | |
| Delta 9-Tetrahydrocannabinol (Delta 9-THC) | 0.179 | 0.544 | ND | ND | |
| Delta 9-Tetrahydrocannabinolic Acid (THCA-A) | 0.158 | 0.482 | ND | ND | |
| Tetrahydrocannabivarin (THCV) | 0.036 | 0.109 | ND | ND | |
| Tetrahydrocannabivarinic Acid (THCVA) | 0.140 | 0.425 | ND | ND | |
| Total Cannabinoids | | | 55.618 | 55.62 | |
| Total Potential THC | | | ND | ND | |
| Total Potential CBD | | | 51.846 | 51.85 | |

Final Approval



Karen Winternheimer
19Jul2022
04:56:00 PM MDT

PREPARED BY / DATE



Kayla Phye
19Jul2022
05:02:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/09f9afb9-95bf-43cd-881e-8f39c7886fcb>

Definitions

% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).
Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDA *(0.877)).

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. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified

09f9afb995bf43cd881e8f39c7886fcb.1

CERTIFICATE OF ANALYSIS

Prepared for:
JOY ORGANICS

5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

1350 mg 5G Broad Spectrum Tincture Bulk in EVOO

| | | | |
|--|---|-------------------------------|----------------------|
| Batch ID or Lot Number: OTM1350-220701B | Test: Residual Solvents | Reported: 14Jun2022 | USDA License: N/A |
| Matrix: Concentrate | Test ID: T000209819 | Started: 14Jun2022 | Sampler ID: N/A |
| | Method(s): TM04 (GC-MS): Residual Solvents | Received: 10Jun2022 | Status: Active |

| Residual Solvents | Dynamic Range (ppm) | Result (ppm) | Notes |
|-------------------------------|---------------------|--------------|-------|
| Propane | 82 - 1630 | ND | |
| Butanes (Isobutane, n-Butane) | 124 - 2481 | ND | |
| Methanol | 50 - 1010 | ND | |
| Pentane | 72 - 1446 | ND | |
| Ethanol | 73 - 1465 | ND | |
| Acetone | 78 - 1565 | ND | |
| Isopropyl Alcohol | 83 - 1652 | ND | |
| Hexane | 5 - 102 | ND | |
| Ethyl Acetate | 82 - 1633 | ND | |
| Benzene | 0.2 - 3.3 | ND | |
| Heptanes | 80 - 1592 | ND | |
| Toluene | 15 - 296 | ND | |
| Xylenes (m,p,o-Xylenes) | 108 - 2168 | ND | |

Final Approval



Jacob Miller
14Jun2022
05:51:00 PM MDT

PREPARED BY / DATE



Ryan Weems
14Jun2022
05:55:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/af53d5c5-4ecf-4c4f-b80f-068037b0378b>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Cert #4329.02

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CERTIFICATE OF ANALYSIS

Prepared for:

JOY ORGANICS

5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

1350 mg 5G Broad Spectrum Tincture Bulk in EVOO

| | | | |
|------------------------------------|---|-------------------------------|----------------------|
| Batch ID or Lot Number: 220701B | Test: Mycotoxins | Reported: 14Jun2022 | USDA License: N/A |
| Matrix: Concentrate | Test ID: T000209820 | Started: 13Jun2022 | Sampler ID: N/A |
| | Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins | Received: 10Jun2022 | Status: Active |

| Mycotoxins | Dynamic Range (ppb) | Result (ppb) | Notes |
|---------------------------------------|---------------------|--------------|-------|
| Ochratoxin A | 3.71 - 129.04 | ND | N/A |
| Aflatoxin B1 | 1.01 - 32.19 | ND | |
| Aflatoxin B2 | 1.04 - 31.97 | ND | |
| Aflatoxin G1 | 0.97 - 32.32 | ND | |
| Aflatoxin G2 | 1.04 - 32.28 | ND | |
| Total Aflatoxins (B1, B2, G1, and G2) | | ND | |

Final Approval



Jacob Miller
14Jun2022
02:49:00 PM MDT

PREPARED BY / DATE



Ryan Weems
14Jun2022
02:52:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/e525ddab-5a2e-4663-8a83-278e70102238>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Cert #4329.02

CDPHE Certified

e525ddab5a2e46638a83278e70102238.1

Prepared for:
JOY ORGANICS


5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

1350 mg 5G Broad Spectrum Tincture Bulk in EVOO

| | | | |
|---|-------------------------------------|-------------------------------|---------------------|
| Batch ID or Lot Number: 220701B | Test: Pesticides | Reported: 16Jun2022 | USDA License: NA |
| Matrix: Concentrate | Test ID: T000209817 | Started: 14Jun2022 | Sampler ID: NA |
| | Method(s): TM17 (LC-QQ LC MS/MS) | Received: 10Jun2022 | Status: NA |

| Pesticides | Dynamic Range (ppb) | Result (ppb) | Pesticides | Dynamic Range (ppb) | Result (ppb) |
|---------------------|---------------------|--------------|-----------------|---------------------|--------------|
| Abamectin | 365 - 2660 | ND | Malathion | 304 - 2758 | ND |
| Acephate | 45 - 2774 | ND | Metalaxyl | 51 - 2788 | ND |
| Acetamiprid | 43 - 2778 | ND | Methiocarb | 39 - 2735 | ND |
| Azoxystrobin | 40 - 2739 | ND | Methomyl | 42 - 2747 | ND |
| Bifenazate | 42 - 2765 | ND | MGK 264 1 | 187 - 1618 | ND |
| Boscalid | 15 - 2744 | ND | MGK 264 2 | 129 - 1129 | ND |
| Carbaryl | 40 - 2776 | ND | Myclobutanil | 37 - 2661 | ND |
| Carbofuran | 43 - 2761 | ND | Naled | 28 - 2666 | ND |
| Chlorantraniliprole | 46 - 2731 | ND | Oxamyl | 3 - 2768 | ND |
| Chlorpyrifos | 47 - 2776 | ND | Pacllobutrazol | 41 - 2732 | ND |
| Clofentezine | 306 - 2776 | ND | Permethrin | 340 - 2681 | ND |
| Diazinon | 298 - 2777 | ND | Phosmet | 41 - 2752 | ND |
| Dichlorvos | 311 - 2758 | ND | Prophos | 290 - 2708 | ND |
| Dimethoate | 45 - 2766 | ND | Propoxur | 39 - 2744 | ND |
| E-Fenpyroximate | 296 - 2737 | ND | Pyridaben | 302 - 2767 | ND |
| Etofenprox | 42 - 2726 | ND | Spinosad A | 36 - 2242 | ND |
| Etoxazole | 299 - 2708 | ND | Spinosad D | 55 - 497 | ND |
| Fenoxycarb | 45 - 2737 | ND | Spiromesifen | 306 - 2722 | ND |
| Fipronil | 39 - 2733 | ND | Spirotetramat | 292 - 2784 | ND |
| Flonicamid | 4 - 2732 | ND | Spiroxamine 1 | 17 - 1160 | ND |
| Fludioxonil | 260 - 2633 | ND | Spiroxamine 2 | 21 - 1502 | ND |
| Hexythiazox | 49 - 2737 | ND | Tebuconazole | 259 - 2755 | ND |
| Imazalil | 286 - 2760 | ND | Thiacloprid | 41 - 2763 | ND |
| Imidacloprid | 51 - 2800 | ND | Thiamethoxam | 45 - 2752 | ND |
| Kresoxim-methyl | 53 - 2822 | ND | Trifloxystrobin | 41 - 2736 | ND |

Final Approval



Karen Winternheimer
16Jun2022
04:48:00 PM MDT

PREPARED BY / DATE



Daniel Weidensaul
16Jun2022
05:01:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/19a1d5c3-6e0c-46df-993b-981a8cb70fc2>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range
ppb = Parts Per Billion

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Cert #4329.02
19a1d5c36e0c46df993b981a8cb70fc2.1

CERTIFICATE OF ANALYSIS

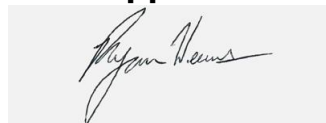
Prepared for:

JOY ORGANICS5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528**1350 mg 5G Broad Spectrum Tincture Bulk in EVOO**

| | | | |
|------------------------------------|---|-------------------------------|---------------------|
| Batch ID or Lot Number: 220701B | Test: Heavy Metals | Reported: 14Jun2022 | USDA License: NA |
| Matrix: Unit Co | Test ID: T000209818 | Started: 14Jun2022 | Sampler ID: NA |
| | Method(s): TM19 (ICP-MS): Heavy Metals | Received: 10Jun2022 | Status: NA |

Heavy Metals

| | Dynamic Range (ppm) | Result (ppm) | Notes |
|---------|---------------------|--------------|-------|
| Arsenic | 0.05 - 4.58 | ND | |
| Cadmium | 0.05 - 4.53 | ND | |
| Mercury | 0.04 - 4.43 | ND | |
| Lead | 0.05 - 4.66 | ND | |

Final ApprovalRyan Weems
14Jun2022
02:50:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul
14Jun2022
02:53:00 PM MDT

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/a4040976-d3bf-47cf-995e-a7bdab987e29>**Definitions**ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Cert #4329.02



CDPHE Certified



a4040976d3bf47cf995ea7bdab987e29.1


1350 BS Mint

| | | | |
|------------------------------------|---|-------------------------------|----------------------|
| Batch ID or Lot Number: 220701B | Test: Microbial Contaminants | Reported: 11Jul2022 | USDA License: N/A |
| Matrix: Finished Product | Test ID: T000212958 | Started: 07Jul2022 | Sampler ID: N/A |
| | Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel) | Received: 06Jul2022 | Status: Active |

Microbial Contaminants

| Contaminants | Method | LOD | Quantitation Range | Result | Notes |
|-----------------------|-----------------------|-------------------------|---|---------------|---|
| STEC | TM25: PCR | 10 ⁰ CFU/25g | NA | Absent | Free from visual mold, mildew, and foreign matter |
| <i>Salmonella</i> | TM25: PCR | 10 ⁰ CFU/25g | NA | Absent | |
| Total Yeast and Mold* | TM24: Culture Plating | 10 ¹ CFU/g | 1.0x10 ² - 1.5x10 ⁴ | None Detected | |
| Total Aerobic Count* | TM26: Culture Plating | 10 ² CFU/g | 1.0x10 ³ - 1.5x10 ⁵ | None Detected | |
| Total Coliforms* | TM27: Culture Plating | 10 ¹ CFU/g | 1.0x10 ² - 1.5x10 ⁴ | None Detected | |

Final Approval



PREPARED BY / DATE

Eden Thompson-Wright
 10Jul2022
 09:41:00 AM MDT

APPROVED BY / DATE



Brett Hudson
 11Jul2022
 10:34:00 AM MDT



<https://results.botanacor.com/api/v1/coas/uuid/9ec839c7-8f51-474f-99cd-35e37084fab9>

Definitions

* 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
 CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
 STEC = Shiga Toxin-Producing E. coli

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Cert #4329.02

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 9ec839c78f51474f99cd35e37084fab9.1