## CERTIFICATE OF ANALYSIS

PRODUCT NAME:
PRODUCT STRENGTH: TINCTURE BATCH:
BEST BY DATE:
HEMP EXTRACT LOT:
Organic CBD Full Spectrum Tincture - Key Lime

| 2250 mg |
| :--- |
| 230425 G |
| $4 / 25 / 2025$ |
| $221707 \mathrm{~B}-$ LD-0-00108 |

Physical Atttributes

| Test | Method | Specification | Results |
| :---: | :---: | :---: | :---: |
| Color | Internal | Golden to Amber | PASS |
| Odor | Internal | Characteristic - Coconut and Hemp - 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 <br> shrink bands intact | PASS |
| Secondary Package Eval. | Internal | Labeling Compliance Checked, Cartons sturdy and clean. <br> 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 | *NLT (product strength) mg / bottle | 2625mg | PASS |
| Potency - D9-THC | HPLC-UV DAD | LOQ: 10 ppm (.001-0.3\%) | 80 mg | PASS |
| Expanded Pesticide Panel | HPLC-QQQ | LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract | ND | PASS |
| Microbial <br> Escherichia coli (STEC) | PCR | Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram | Below LOQ | PASS |
| Microbial <br> Salmonella | PCR | Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram | Below LOQ | PASS |
| Microbial <br> 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 Panel | ICP-MS | Arsenic (As): $\leq 1.5 \mathrm{ppm}$ <br> Cadmium (Cd): $\leq 0.5 \mathrm{ppm}$ <br> Lead ( Pb ): $\leq 0.5 \mathrm{ppm}$ <br> Mercury (Hg): $\leq 1.5 \mathrm{ppm}$ | ND | PASS |
| Mycotoxins | ICP-MS | $\begin{aligned} & \text { Total Aflatoxins }<20 \mathrm{ppb} \dagger \\ & \text { Afltoxin B1 }<5 \mathrm{ppb} \\ & \text { Ochratoxin }<5 \mathrm{ppb} \\ & \hline \end{aligned}$ | ND | PASS |
| Residual Solvents | GC-HS-MSD | LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract | ND | PASS |

*     * Level of Quantitation, $\dagger$ Parts Per

Million $\dagger$ Part Per Billion CFU/g=Colony
Forming Units per Gram
Forming Units per Gram
*Nothing Less Than
$10^{\wedge} 2=100 \mathrm{CFU}$
$10^{\wedge} 3=1,000 \mathrm{CFU}$


## 2250mg Full Spectrum Tincture- Lime

| Batch ID or Lot Number: | Test: | Reported: | USDA License: |
| :---: | :---: | :---: | :---: |
| 230425G | Potency | 10Dec2022 | N/A |
| Matrix: | Test ID: | Started: | Sampler ID: |
| Concentrate | T000230175 | 08Dec2022 | N/A |
|  | Method(s): | Received: | Status: |
|  | TM14 (HPLC-DAD): Potency - | 08Dec2022 | Active |
|  | Standard Cannabinoid Analysis |  |  |


| Cannabinoids | LOD (\%) | LOQ (\%) | Result (\%) | Result (mg/g) |
| :--- | :---: | :---: | :---: | :---: |
| Notes |  |  |  |  |
| Cannabichromene (CBC) | 0.006 | 0.022 | 0.362 | 3.62 |
| Cannabichromenic Acid (CBCA) | 0.006 | 0.020 | ND | ND |
| Cannabidiol (CBD) | 0.019 | 0.060 | 8.939 | 89.39 |
| Cannabidiolic Acid (CBDA) | 0.019 | 0.062 | <LOQ | LOQ |
| Cannabidivarin (CBDV) | 0.004 | 0.014 | 0.065 | 0.65 |
| Cannabidivarinic Acid (CBDVA) | 0.008 | 0.026 | ND | ND |
| Cannabigerol (CBG) | 0.004 | 0.013 | 0.199 | 1.99 |
| Cannabigerolic Acid (CBGA) | 0.015 | 0.053 | ND | ND |
| Cannabinol (CBN) | 0.005 | 0.017 | <LOQ | <LOQ |
| Cannabinolic Acid (CBNA) | 0.010 | 0.036 | ND | ND |
| Delta 8-Tetrahydrocannabinol (Delta 8-THC) | 0.018 | 0.063 | ND | ND |
| Delta 9-Tetrahydrocannabinol (Delta 9-THC) | 0.016 | 0.057 | 0.272 | 2.72 |
| Delta 9-Tetrahydrocannabinolic Acid (THCA-A) | 0.014 | 0.051 | ND | ND |
| Tetrahydrocannabivarin (THCV) | 0.003 | 0.012 | <LOQ | LOQ |
| Tetrahydrocannabivarinic Acid (THCVA) | 0.013 | 0.045 | ND | ND |
| Total Cannabinoids |  |  | 9.837 | $\mathbf{9 8 . 3 7}$ |
| Total Potential THC |  |  | 0.272 | 2.72 |
| Total Potential CBD |  |  | 8.939 | 89.39 |

## Final Approval



PREPARED BY / DATE
PRepared by / DAte

Karen Winternheimer 10Dec2022 01:35:00 PM MST

# Sam Smith <br> 10Dec2022 <br> 01:37:00 PM MST <br> APPROVED BY / DATE 


https://results.botanacor.com/api/v1/coas/uuid/b49eda96-a82f-4995-a76c-aef3517b9fce

## Definitions

$\%=\%(\mathrm{w} / \mathrm{w})=$ 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)).


## 2250 mg Full Spectrum Tincture- Lime

\(\left.$$
\begin{array}{llll}\hline \begin{array}{lll}\text { Batch ID or Lot Number: } \\
\text { 230425G }\end{array}
$$ \& Test: <br>
Mycotoxins \& Reported: <br>

\mathbf{2 1 0 c t 2 0 2 2}\end{array}\right]\)| USDA License: |
| :--- |
| Matrix: |
| Concentrate |


| Mycotoxins | Dynamic Range $(\mathrm{ppb})$ | Result $(\mathrm{ppb})$ |
| :--- | :--- | :--- |
| Ochratoxin A | $1.29-118.48$ | ND |
| Aflatoxin B1 | $0.85-30.17$ | ND |
| Aflatoxin B2 | $2.29-29.70$ | ND |
| Aflatoxin G1 | $0.97-29.91$ | ND |
| Aflatoxin G2 | $1.18-29.79$ | ND |
| Total Aflatoxins (B1, B2, G1, and G2) | ND |  |

## Final Approval

PREPARED BY / DATE


APPROVED BY / DATE

Karen Winternheimer
21 Oct2022
10:31:00 AM MDT
https://results.botanacor.com/api/v1/coas/uuid/8ccc393e-3ea3-4eb0-90d5-8e4c9ec4fb5e

## Definitions

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

2250mg Full Spectrum Tincture- Lime

| Batch ID: 230425G | Test ID: | T000126131 |  |
| :--- | :--- | :--- | :--- |
| Type: | Concentrate | Submitted: | 02/25/2021 @ 12:03 PM |
| Test: | Pesticides | Started: | $2 / 25 / 2021$ |
| Method: | TM17 | Reported: | $3 / 1 / 2021$ |

## PESTICIDE RESIDUE

| Compound | Dynamic Range (ppb) | Result (ppb) | Compound | Dynamic Range (ppb) | Result (ppb) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Acephate | 34-2468 | ND* | Malathion | 291-2468 | ND* |
| Acetamiprid | 40-2468 | ND* | Metalaxyl | 39-2468 | ND* |
| Abamectin | >342 | ND* | Methiocarb | 38-2468 | ND* |
| Azoxystrobin | 42-2468 | ND* | Methomyl | 42-2468 | ND* |
| Bifenazate | 28-2468 | ND* | MGK 2641 | 160-2468 | ND* |
| Boscalid | 42-2468 | ND* | MGK 2642 | 101-2468 | ND* |
| Carbaryl | 38-2468 | ND* | Myclobutanil | 38-2468 | ND* |
| Carbofuran | 39-2468 | ND* | Naled | 41-2468 | ND* |
| Chlorantraniliprole | 37-2468 | ND* | Oxamyl | 38-2468 | ND* |
| Chlorpyrifos | 42-2468 | ND* | Paclobutrazol | 40-2468 | ND* |
| Clofentezine | 269-2468 | ND* | Permethrin | 269-2468 | ND* |
| Diazinon | 280-2468 | ND* | Phosmet | 41-2468 | ND* |
| Dichlorvos | >286 | ND* | Prophos | 298-2468 | ND* |
| Dimethoate | 40-2468 | ND* | Propoxur | 38-2468 | ND* |
| E-Fenpyroximate | 279-2468 | ND* | Pyridaben | 281-2468 | ND* |
| Etofenprox | 41-2468 | ND* | Spinosad A | 30-2468 | ND* |
| Etoxazole | 289-2468 | ND* | Spinosad D | 76-2468 | ND* |
| Fenoxycarb | >31 | ND* | Spiromesifen | >273 | ND* |
| Fipronil | 38-2468 | ND* | Spirotetramat | >299 | ND* |
| Flonicamid | 38-2468 | ND* | Spiroxamine 1 | 17-2468 | ND* |
| Fludioxonil | >286 | ND* | Spiroxamine 2 | 22-2468 | ND* |
| Hexythiazox | 36-2468 | ND* | Tebuconazole | 285-2468 | ND* |
| Imazalil | 272-2468 | ND* | Thiacloprid | 42-2468 | ND* |
| Imidacloprid | 41-2468 | ND* | Thiamethoxam | 38-2468 | ND* |
| Kresoxim-methyl | 43-2468 | ND* | Trifloxystrobin | 40-2468 | ND* |

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


## FINAL APPROVAL




Ben Minton
1-Mar-2021
1:06 PM

[^0][^1]botanacor

2250mg Full Spectrum Tincture- Lime

| Batch ID: 230425G | Test ID: | T000126134 |  |
| :--- | :--- | :--- | :--- |
| Type: | Concentrate | Submitted: | 02/25/2021 @ 12:03 PM |
| Test: | Residual Solvents | Started: | $3 / 2 / 2021$ |
| Method: | TM04 | Reported: | $3 / 2 / 2021$ |

## RESIDUAL SOLVENTS

| Solvent | Dynamic Range (ppm) | Result (ppm) |
| :---: | :---: | :---: |
| Propane | 96-1911 | *ND |
| Butanes (Isobutane, n-Butane) | 178-3556 | *ND |
| Methanol | 53-1054 | *ND |
| Pentane | 91-1816 | *ND |
| Ethanol | 92-1838 | *ND |
| Acetone | 92-1849 | *ND |
| Isopropyl Alcohol | 97-1933 | *ND |
| Hexane | 6-116 | *ND |
| Ethyl Acetate | 96-1919 | *ND |
| Benzene | 0.2-3.7 | *ND |
| Heptanes | 92-1838 | *ND |
| Toluene | 17-335 | *ND |
| $\begin{gathered} \text { Xylenes } \\ \text { (m,p,o-Xylenes) } \end{gathered}$ | 118-2359 | *ND |

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

NOTES:
N/A

FINAL APPROVAL
Ryan Weems
2-Mar-2021
Pham Nems
3:08 PM

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botanacor

2250mg Full Spectrum Tincture- Lime

| Batch ID: 230425G | Test ID: | T000126133 |  |
| :--- | :--- | :--- | :--- |
| Type: | Concentrate | Submitted: | 02/25/2021 @ 12:03 PM |
| Test: | Metals | Started: | $3 / 2 / 2021$ |
| Method: | TM19 | Reported: | $3 / 3 / 2021$ |

## HEAVY METALS

| Analyte | Dynamic Range (ppm) | Result (ppm) |
| :---: | :---: | :---: |
| Arsenic | $0.092-9.20$ | ND |
| Cadmium | $0.095-9.53$ | ND |
| Mercury | $0.095-9.55$ | ND |
| Lead | $0.095-9.52$ | ND |
| ND $=$ None Detected (Defined by Dynamic Range of the method) |  |  |

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


## FINAL APPROVAL

| Damich Wastreand | $\begin{aligned} & \text { Daniel Weidensaul } \\ & \text { 3-Mar-2021 } \\ & \text { 11:00 AM } \end{aligned}$ | Sen Mintom | $\begin{aligned} & \text { Ben Minton } \\ & \text { 3-Mar-2021 } \\ & \text { 12:36 PM } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| PREPARED BY/ DATE |  | APPROVED BY / DATE |  |

[^2]
## 

| Batch ID or Lot Number: <br> 230425G | Test: <br> Microbial Contaminants | Reported: <br> $\mathbf{0 1 M a y 2 0 2 3}$ | USDA License: |
| :--- | :--- | :--- | :--- |
| Matrix: | Test ID: | Started: | N/A |
| Finished Product | T000242579 | 27Apr2023 | Sampler ID: |
|  | Method(s): | Received: | N/A |
|  | TM25 (qPCR) TM24, TM26, TM27 | 27Apr2023 | Status: |
|  | (Culture Plating): Microbial (Colorado | Active |  |
|  | Panel) |  |  |
|  |  |  |  |


| Microbial <br> Contaminants | Method | LOD | Quantitation <br> Range | Result | Notes |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| STEC | TM25: PCR | $10^{0} \mathrm{CFU} / 25 \mathrm{~g}$ | NA | Absent | Free from visual mold, mildew, and <br> foreign matter |
| Salmonella | TM25: PCR | $10^{0} \mathrm{CFU} / 25 \mathrm{~g}$ | NA | Absent |  |
| Total Yeast and Mold* | TM24: Culture <br> Plating | $10^{1} \mathrm{CFU} / \mathrm{g}$ | $1.0 \times 10^{2}-1.5 \times 10^{4}$ | None Detected |  |

## Final Approval

Brett Hudson
01May2023
12:32:00 PM MDT


APPROVED BY / DATE

Eden Thompson-Wright
01May2023
04:46:00 PM MDT
https://results.botanacor.com/api/v1/coas/uuid/62d10242-a9a4-4870-bd2c-bd1c3df11ada

## 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: $10^{2}=$ $100 \mathrm{CFU}, 10^{3}=1,000 \mathrm{CFU}, 10^{4}=10,000 \mathrm{CFU}, 10^{5}=100,000 \mathrm{CFU}$
CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
$\mathrm{ULOQ}=$ Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
STEC = Shiga Toxin-Producing E. coli



[^0]:    APPROVED BY / DATE

[^1]:    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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