

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Organic CBD Full Spectrum Tincture - Key Lime  
**PRODUCT STRENGTH:** 2250mg  
**TINCTURE BATCH:** 230919B  
**BEST BY DATE:** 9/19/2023  
**HEMP EXTRACT LOT:** LD-O-00108

### Physical Attributes

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 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	*NLT (product strength) mg / bottle	<b>2283mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	<b>62mg</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals Panel</b>	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>ND</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>ND</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</b>	PASS

\*Level of Quantitation, † Parts Per Million ‡ Part Per Billion  
 CFU/g=Colony Forming Units per Gram  
 \*Nothing Less Than  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified

Name



10/26/2023

Date

## 2250mg Full Spectrum Key Lime Tincture

Batch ID or Lot Number: <b>230919B</b>	Test: <b>Potency</b>	Reported: <b>20Sep2023</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000256250	Started: 19Sep2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 18Sep2023	Status: Active

### Cannabinoids

	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.005	0.017	0.293	2.93	
Cannabichromenic Acid (CBCA)	0.004	0.016	ND	ND	
Cannabidiol (CBD)	0.020	0.052	7.685	76.85	
Cannabidiolic Acid (CBDA)	0.021	0.053	<LOQ	<LOQ	
Cannabidivarin (CBDV)	0.005	0.012	0.053	0.53	
Cannabidivarinic Acid (CBDVA)	0.009	0.022	ND	ND	
Cannabigerol (CBG)	0.003	0.010	ND	ND	
Cannabigerolic Acid (CBGA)	0.011	0.041	ND	ND	
Cannabinol (CBN)	0.003	0.013	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.008	0.028	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.013	0.049	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.012	0.044	0.210	2.10	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.011	0.039	ND	ND	
Tetrahydrocannabivarin (THCV)	0.002	0.009	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.009	0.035	ND	ND	
<b>Total Cannabinoids</b>			<b>8.241</b>	<b>82.41</b>	
Total Potential THC			0.210	2.10	
Total Potential CBD			7.685	76.85	

### Final Approval



Karen Winternheimer  
20Sep2023  
09:31:00 AM MDT

PREPARED BY / DATE



Sam Smith  
20Sep2023  
09:33:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f537d549-ae1f-4be9-b5a5-757c75498f90>

#### 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 SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., 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 SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified

f537d549ae1f4be9b5a5757c75498f90.1

## 2250mg Full Spectrum Key Lime Tincture

<b>Batch ID:</b> 230919B	<b>Test ID:</b> T000126131
<b>Type:</b> Concentrate	<b>Submitted:</b> 02/25/2021 @ 12:03 PM
<b>Test:</b> Pesticides	<b>Started:</b> 2/25/2021
<b>Method:</b> TM17	<b>Reported:</b> 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 264 1	160 - 2468	ND*
Boscalid	42 - 2468	ND*	MGK 264 2	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*	Propfos	298 - 2468	ND*
Dimethoate	40 - 2468	ND*	Propxur	38 - 2468	ND*
E-Fenpyroximate	279 - 2468	ND*	Pyridaben	281 - 2468	ND*
Etofenprox	41 - 2468	ND*	Spinosad A	30 - 2468	ND*
Etoazole	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


 Tyler Wiese  
 1-Mar-2021  
 12:03 PM

PREPARED BY / DATE


 Ben Minton  
 1-Mar-2021  
 1:06 PM

APPROVED BY / DATE


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## 2250mg Full Spectrum Key Lime Tincture

Batch ID or Lot Number: <b>230919B</b>	Test: <b>Mycotoxins</b>	Reported: <b>21Oct2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000223802	Started: 19Oct2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 07Oct2022	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.29 - 118.48	ND	N/A
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

  
 Sam Smith  
 21Oct2022  
 10:29:00 AM MDT  
 PREPARED BY / DATE

  
 Karen Winternheimer  
 21Oct2022  
 10:31:00 AM MDT  
 APPROVED BY / DATE



<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

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Cert #4329.02

CDPHE Certified

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**2250mg Full Spectrum Key Lime Tincture**

<b>Batch ID:</b> 230919B	<b>Test ID:</b> T000126134
<b>Type:</b> Concentrate	<b>Submitted:</b> 02/25/2021 @ 12:03 PM
<b>Test:</b> Residual Solvents	<b>Started:</b> 3/2/2021
<b>Method:</b> TM04	<b>Reported:</b> 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
Xylenes (m,p,o-Xylenes)	118 - 2359	*ND

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

NOTES:  
N/A**FINAL APPROVAL**  
Ryan Weems  
2-Mar-2021  
3:08 PM

PREPARED BY / DATE

  
Ben Minton  
2-Mar-2021  
6:32 PM

APPROVED BY / DATE

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Certificate #4329.02

**2250mg Full Spectrum Key Lime Tincture**


<b>Batch ID:</b> 230919B	<b>Test ID:</b> T000126133
<b>Type:</b> Concentrate	<b>Submitted:</b> 02/25/2021 @ 12:03 PM
<b>Test:</b> Metals	<b>Started:</b> 3/2/2021
<b>Method:</b> TM19	<b>Reported:</b> 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)

**FINAL APPROVAL**

  
Daniel Weidensaul  
3-Mar-2021  
11:00 AM

PREPARED BY / DATE

  
Ben Minton  
3-Mar-2021  
12:36 PM

APPROVED BY / DATE

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## 2250mg Full Spectrum Key Lime Tincture

Batch ID or Lot Number: <b>230919B</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>25Sep2023</b>	USDA License: N/A
Matrix: Finished Product	Test ID: T000256846	Started: 21 Sep2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 21 Sep2023	Status: Active

## Microbial Contaminants

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

## Final Approval



Brett Hudson  
24Sep2023  
10:32:00 AM MDT

PREPARED BY / DATE



Brianne Maillot  
25Sep2023  
12:13:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/7ff1f8f9-6ac3-4103-8cf8-735f379bf91a>

### 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<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  
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

CDPHE Certified  
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