JOYORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME:
PRODUCT STRENGTH:
TINCTURE BATCH:
BEST BY DATE:
HEMP EXTRACT LOT:

-

-_

Organic CBD Full Spectrum Tincture - Key Lime

2250mg
230425G
4/25/2025
221707B- LD-0-00108

Physical Atttributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	Characteristic - Coconut and hemp, lime	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	*NLT (product strength) mg / bottle	2625mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%) product strength mg / bottle	80mg	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	PASS
Microbial Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	Below LOQ	PASS
Microbial Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	Below LOQ	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 Panel	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm		PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb†NDPASAfltoxin B1 < 5 ppb		PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	PASS

**Level of Quantitation, † Parts Per Million † Part Per Billion CFU/g=Colony Forming Units per Gram *nothing Less Than 10°2=100 CFU 10°3=1,000 CFU

Quality Certified

Name

Date

5/2/2023

2519 S Shields St. #1042, Fort Collins, CO 80526 Tel: (833) 569-7223 www.joyorganics.com

FO-106 Certificate of Analysis Rev. 1.1 - Effective Date: 6/29/2022



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): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 08Dec2022	Status: Active

Cannabinoids	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Note
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< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></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< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></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< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Tetrahydrocannabivarinic Acid (THCVA)	0.013	0.045	ND	ND	
Total Cannabinoids			9.837	98.37	
Total Potential THC			0.272	2.72	
Total Potential CBD			8.939	89.39	

Final Approval

PREPARED BY / DATE

Karen Winternheimer 10Dec2022 01:35:00 PM MST

Amantha

Sam Smith 10Dec2022 01:37:00 PM MST



APPROVED BY / DATE

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

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.



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Batch ID or Lot Number: 230425G	Test: Mycotoxins	Reported: 21Oct2022	USDA License: N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000223802	19Oct2022	N/A
	Method(s):	Received:	Status:
	TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	07Oct2022	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	
B1, B2, G1, an	1.29 - 118.48 0.85 - 30.17 2.29 - 29.70 0.97 - 29.91 1.18 - 29.79	ND ND ND ND ND	N/A

Final Approval

PREPARED BY / DATE

Samantha Sma

Sam Smith 21Oct2022 10:29:00 AM MDT

APPROVED BY / DATE

Karen Winternheimer 21Oct2022 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

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Batch ID: 23	0425G	Test ID:	T000126131
Туре:	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 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*	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

Tyler Wiese 1-Mar-2021 12:03 PM

Den Muton

Ben Minton 1-Mar-2021 1:06 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Batch ID: 23	0425G	Test ID:	T000126134
Туре:	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
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

Den Muton

Ben Minton 2-Mar-2021 6:32 PM

APPROVED BY / DATE

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PREPARED BY / DATE



Batch ID: 230	0425G	Test ID:	T000126133
Туре:	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)

FINAL APPROVAL

Daniel Wantangel

Daniel Weidensaul 3-Mar-2021 11:00 AM

Den Minton

APPROVED BY / DATE

Ben Minton 3-Mar-2021 12:36 PM

PREPARED BY / DATE

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Test: Microbial Cont a	aminants	Reported: 01May2023		USDA License: N/A
Test ID:	Test ID:			Sampler ID:
T000242579		27Apr2023		N/A
Method(s):		Received:		Status:
., ,	_			Active
		a		
Method	LOD	Quantitation Range	Result	Notes
TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
TM25: PCR	10 ⁰ CFU/25g	NA	Absent	
TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	None Detected	
TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
	Microbial Conta Test ID: T000242579 Method(s): TM25 (qPCR) TM (Culture Plating) Panel) Method TM25: PCR TM25: PCR TM25: PCR TM24: Culture Plating TM26: Culture Plating TM27: Culture	Microbial Contaminants Test ID: T000242579 Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorador Panel) Method LOD Methods: TM25: PCR 10 ⁰ CFU/25g TM25: PCR 10 ⁰ CFU/25g TM24: Culture Plating TM26: Culture Plating TM26: Culture Plating TM27: Culture 10 ¹ CFU/g	Microbial Contaminants01May2023Test ID: T000242579Started: 27Apr2023Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)Received: 27Apr2023MethodLODQuantitation RangeMethodLODNATM25: PCR 10^0 CFU/25gNATM25: PCR 10^0 CFU/25gNATM25: PCR 10^0 CFU/25gNATM24: Culture Plating 10^1 CFU/g $1.0x10^2 - 1.5x10^4$ TM26: Culture Plating 10^2 CFU/g $1.0x10^2 - 1.5x10^4$	Microbial ContartsO1May2023Test ID: T000242579Started: 27Apr2023Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)Received: 27Apr2023MethodLODQuantitation RangeResultMethod10° CFU/25gNAAbsentTM25: PCR10° CFU/25gNAAbsentTM25: PCR10° CFU/25gNAAbsentTM25: PCR10° CFU/25gNAAbsentTM26: Culture Plating10° CFU/g1.0x10²-1.5x10⁴None DetectedTM26: Culture Plating10° CFU/g1.0x10²-1.5x10⁴None Detected

Final Approval

PREPARED BY / DATE

Vent Tehn

Brett Hudson 01May2023 12:32:00 PM MDT

Eden Thompson

Eden Thompson-Wright 01May2023 04:46:00 PM MDT



APPROVED BY / DATE

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: $10^2 = 100 \text{ CFU}$, $10^3 = 1,000 \text{ CFU}$, $10^4 = 10,000 \text{ CFU}$, $10^5 = 100,000 \text{ CFU}$ 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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