

CERTIFICATE OF ANALYSIS

PRODUCT NAME: *Joy Organics Full Spectrum CBD Tincture - Key Lime

PRODUCT STRENGTH: 450 mg CBD/Bottle

TINCTURE BATCH: 22074A **BEST BY DATE:** 9/10/2023 B1211-001 **HEMP EXTRACT LOT:**

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber.	PASS
Odor	Joy Internal	Characteristic - Coconut, Hemp and 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.	condary 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	$LOQ*: \ge product strength \\ mg / bottle$	465.7 mg	PASS	
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.3% total THC (Full spectrum)	0.052%	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

Values expressed in scientific notation. Examples: 10^2=100 10^3=1,000

Quality Certified

Cody Elbrader Cody Elbrader

03/23/2022

Date

Quality Assurance Technician

^{**}Colony Forming Units per Gram † Parts Per Million †† Part Per Billion



certificate ID

0MN52

B1211-001

sample ID 25408

7USC1639 Certificate of Analysis

 \bigcirc \bigcirc \bigcirc

total cannabinoids 510.4mg

per 30mL

HC‡ 15.1mg CBD‡ 465.7mg

Stillwater Laboratories

order 9236

analysis date 12/15/2020 4:57:23 PM

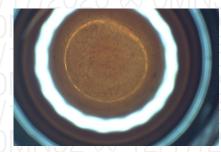
test tag B1211-001

sample wgt 1.0 g

Inspection MSP-7.5.1.2

DESCRIPTION: Tincture sample (1.00g) received in a client-labeled bottle, by commercial courier. Labeled 25408 and sample tag B1211-001.

7USC1639 Infused



Potency per 30mL	MSP-7.5.1.4	LOD LOQ (95	error 5%Cl k=2)
tetrahydrocannabolic acid (THCa) Δ9-tetrahydrocannabinol (Δ9 THC) Δ8-tetrahydrocannabinol (Δ8 THC) tetrahydrocannabivarin (THCv) cannabidiolic acid (CBDa) cannabidiol (CBD) cannabidiovarin (CBDv) cannabigerolic acid (CBGa) cannabigerol (CBG) cannabinol (CBN) cannabichromene (CBC)	ND 15.1mg ND ND ND 465.7mg ND ND 25.0mg 1.8mg 2.8mg	0.06 0.17 ± 0.05 0.16 ± 0.07 0.22 ± 0.06 0.18 ± 0.05 0.15 ± 0.06 0.17 ± 0.06 0.17 ± 0.06 0.19 ± 0.03 0.09 ± 0.06 0.17 ±	0.42mg 0.22mg 0.18mg 0.15mg 0.15mg 0.17mg 0.15mg 0.12mg

 $\ddagger = \text{decarbed } \ \ \text{NT} = \text{not tested NL} = \text{no limit, ND} = \text{not detected, LOD} = \text{detection limit , LOQ} = \text{quantitation limit}$

, OIMINO		7 12/	17/202								
Microbial M	ISP-7.5.1.1	10 limit	Metals N	ISP-7.5.1.1	1 limit	Pesticides	MSP-7.5.1.8	3 limit	Pesticides	MSP-7.5.1.	8 limit
			Arsenic	PASS	1500 ppb	Daminozide	PASS	0.0 ppm	Piperonylbutoxide	PASS	8.0 ppm
			Cadmium	PASS	500 ppb	Dichlorvos	PASS	0.0 ppm	Prallethrin	PASS	0.4 ppm
			Lead	PASS	500 ppb	Diazinon	PASS	0.2 ppm	Propiconazole	PASS	20.0 ppm
Ochratoxin A	PASS	20 ppb	Mercury	PASS	300 ppb	Dimethoate	PASS	0.0 ppm	Propoxur	PASS	0.0 ppm
Aflatoxin		/\'\/\				Etoxazole	PASS	1.5 ppm	Pyrethrin	PASS	1.0 ppm
						Fenoxycarb	PASS	0.0 ppm	Pyridaben	PASS	3.0 ppm
Solvents	SP-7.5.1.7	limit	Pesticides	/ISP-7.5.1.	8 limit	Fenpyroximate	PASS	2.0 ppm	Spinetoram	PASS	3.0 ppm
Acetone	PASS	5000 ppm	Abamectin	PASS	0.3 ppm	Fipronil	PASS	0.0 ppm	Spinosad	PASS	3.0 ppm
Acetonitrile	PASS	410 ppm	Acephate			Flonicamid	PASS	2.0 ppm	Spiromesifen	PASS	12.0 ppm
Benzene	PASS	0 ppm	Acequinocyl	PASS	4.0 ppm	Fludioxonil	PASS	30.0 ppm	Spirotetramat	PASS	13.0 ppm
Butane	PASS	5000 ppm	Acetamiprid		5.0 ppm	Hexythiazox	PASS	2.0 ppm	Spiroxamine	PASS	0.0 ppm
Chloroform	PASS	0 ppm	Aldicarb			lmazalil	PASS	0.0 ppm	Tebuconazole	PASS	2.0 ppm
Cyclohexane	PASS	0 ppm	Azoxystrobin	PASS	40.0 ppm	Imidacloprid	PASS	3.0 ppm	Thiacloprid	PASS	0.1 ppm
Ethanol		10000 ppm	Bifenazate	PASS	5.0 ppm	Malathion	PASS	5.0 ppm	Thiamethoxam	PASS	4.5 ppm
Heptane	PASS	5000 ppm	Bifenthrin	PASS	0.5 ppm	Metalaxyl	PASS	15.0 ppm	Trifloxystrobin	PASS	30.0 ppm
Hexane	PASS	290 ppm	Boscalid	PASS	10.0 ppm	Methiocarb	PASS	0.0 ppm			
Isopropyl alcohol	PASS	5000 ppm	Carbaryl	PASS	0.5 ppm	Methomyl	PASS	0.1 ppm			
Methanol		3000 ppm	Carbofuran	PASS	0.0 ppm	Methyl parathion	PASS	0.0 ppm	INSTRUMENTS		
Pentane	PASS	5000 ppm	Chloantraniliprole	PASS	40.0 ppm	Mevinphos	PASS	0.0 ppm	potency: HPLC (LC	2030C-UV	7/90
Propane	PASS	5000 ppm	Chlorfenapyr	PASS	0.0 ppm	Myclobutanil	PASS	9.0 ppm	terpenes: GCMS (Q		
							D 4 0 0	0.5			

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

0.0 ppm

0.5 ppm

1.0 ppm

1.0 ppm

Certified by:

Toluene PASS

Xylenes PASS 2170 ppm

890 ppm

Kyle Larson, MSc (Biology)
Deputy Director

Stillwater Laboratories Inc. MT License L00001, 7, 8 6073 US93N Suite 5 Olney MT 59927 406-881-2019

Chlorpyrifos PASS

Coumaphos PASS

Cypermethrin PASS

Cyfluthrin PASS

Clofentezine PASS 0.5 ppm

12/17/2020 3:27 PM

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Naled

Phosmet PASS

Oxamyl

Paclobutrazol

Permethrin

PASS

PASS

PASS

PASS



0.5 ppm

0.2 ppm

0.0 ppm

20.0 ppm

0.2 ppm





https://portal.a2la.org/scopepdf/4961-01.pdf

solvents: GCMS (QP2020/HS20)

pesticides: LCMSMS (LC8060)

mycotoxins: LCMSMS (LC8060)

metals: ICPMS (ICPMS-2030)

microbial: qPCR (AriaMx) and plating





CERTIFICATE OF ANALYSIS

Prepared for:

JOY ORGANICS

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

OFTKL450

Batch ID or Lot Number: 22074A	Test:	Reported:	USDA License:		
	Microbial Contaminants	22Mar2022	N/A		
Matrix:	Test ID:	Started:	Sampler ID:		
Finished Product	T000197856	14Mar2022	N/A		
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 14Mar2022	Status: N/A		

		Quantitation		
Method	LOD	Range	Result	Notes
TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter Amendment to
TM25: PCR	10 ⁰ CFU/25g	NA	Absent	report T000197856 for batch ID
TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	correction, per customer request. SCH 21Mar2022
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	_
	TM25: PCR TM25: PCR TM24: Culture Plating TM26: Culture Plating TM27: Culture	TM25: PCR 10 ⁰ CFU/25g TM25: PCR 10 ⁰ CFU/25g TM24: Culture Plating 10 ¹ CFU/g TM26: Culture Plating 10 ² CFU/g TM27: Culture 10 ¹ CFU/g	Method LOD Range TM25: PCR 10° CFU/25g NA TM25: PCR 10° CFU/25g NA TM24: Culture Plating 10° CFU/g 1.0x10² - 1.5x10⁴ TM26: Culture Plating 10² CFU/g 1.0x10³ - 1.5x10⁵ TM27: Culture 10° CFU/g 1.0x10² - 1.5x10⁴	MethodLODRangeResultTM25: PCR 10^0 CFU/25gNAAbsentTM25: PCR 10^0 CFU/25gNAAbsentTM24: Culture Plating 10^1 CFU/g $1.0x10^2 - 1.5x10^4$ None DetectedTM26: Culture Plating 10^2 CFU/g $1.0x10^3 - 1.5x10^5$ None DetectedTM27: Culture 10^1 CFU/g $1.0x10^2 - 1.5x10^4$ None Detected

Final Approval

Graffino

Sarah Henning 21Mar2022 11:39:00 AM MDT

Carly Baden

Carly Bader 22Mar2022 03:43:00 PM MDT



PREPARED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/6f0df7eb-f951-4162-9ab8-0ccd84b4a2a5

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

APPROVED BY / DATE

ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation STEC = Shiga Toxin-Producing E. coli

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 17025:2005 Accredited A2LA.











Cert #4329.02

CDPHE Certified 6f0df7ebf95141629ab80ccd84b4a2a5.3