JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Organic CBD Tincture - Mint
PRODUCT STRENGTH:	1350mg
TINCTURE BATCH:	230919A
BEST BY DATE:	9/16/2025
HEMP EXTRACT LOT:	230223A

Physical Atttributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	Characteristic - Olive and Hemp	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 (1350 mg / bottle)	**1523mg**	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	**ND**	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	**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 Panel	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	**ND**	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	**ND**	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

10/26/2023

Date

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

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Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Potency**	**05Mar2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000237151	03Mar2023	N/A
	Method(s):	Received:	Status:
	TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	01Mar2023	Active

Cannabinoids

	LOD (%)	**LOQ** (%)	**Result** (%)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.006	0.021	<LOQ	<LOQ	
Cannabichromenic Acid (CBCA)	0.006	0.020	ND	ND	
Cannabidiol (CBD)	0.019	0.057	5.521	55.21	
Cannabidiolic Acid (CBDA)	0.020	0.058	ND	ND	
Cannabidivarin (CBDV)	0.005	0.013	0.026	0.26	
Cannabidivarinic Acid (CBDVA)	0.008	0.024	ND	ND	
Cannabigerol (CBG)	0.004	0.012	0.437	4.37	
Cannabigerolic Acid (CBGA)	0.015	0.051	ND	ND	
Cannabinol (CBN)	0.005	0.016	ND	ND	
Cannabinolic Acid (CBNA)	0.010	0.035	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.018	0.060	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.016	0.055	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.015	0.049	ND	ND	
Tetrahydrocannabivarin (THCV)	0.003	0.011	0.013	0.13	
Tetrahydrocannabivarinic Acid (THCVA)	0.013	0.043	ND	ND	
Total Cannabinoids			**5.997**	**59.97**	
Total Potential THC			ND	ND	
Total Potential CBD			5.521	55.21	

Final Approval

Karen Winternheimer
05Mar2023
01:28:00 PM MST
PREPARED BY / DATE

Sam Smith
05Mar2023
01:35:00 PM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/fe547e11-eff1-46d1-b2cc-00d448c09eb5

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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CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Heavy Metals**	**06Mar2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Unit Co	T000237154	06Mar2023	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	01Mar2023	NA

Heavy Metals	**Dynamic Range** (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.04 - 3.91	ND	
Cadmium	0.04 - 4.16	ND	
Mercury	0.04 - 4.28	ND	
Lead	0.04 - 4.27	ND	

Final Approval

Samantha Smith

Sam Smith
06Mar2023
01:15:00 PM MST

PREPARED BY / DATE

K Winternheimer

Karen Winternheimer
06Mar2023
01:20:00 PM MST

APPROVED BY / DATE

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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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CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Residual Solvents**	**05Mar2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000237155	03Mar2023	N/A
	Method(s):	Received:	Status:
	TM04 (GC-MS): Residual Solvents	01Mar2023	Active

Residual Solvents	**Dynamic Range** (ppm)	**Result** (ppm)	**Notes**
Propane	110 - 2205	ND	
Butanes (Isobutane, n-Butane)	226 - 4521	ND	
Methanol	67 - 1336	ND	
Pentane	111 - 2213	ND	
Ethanol	109 - 2171	ND	
Acetone	110 - 2199	ND	
Isopropyl Alcohol	112 - 2248	ND	
Hexane	7 - 133	ND	
Ethyl Acetate	113 - 2253	ND	
Benzene	0.2 - 4.4	ND	
Heptanes	111 - 2219	ND	
Toluene	20 - 393	ND	
Xylenes (m,p,o-Xylenes)	144 - 2883	ND	

Final Approval

Karen Winternheimer
05Mar2023
01:55:00 PM MST

PREPARED BY / DATE

Sam Smith
05Mar2023
01:56:00 PM MST

APPROVED BY / DATE

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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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CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Pesticides**	**06Mar2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000237152	05Mar2023	NA
	Method(s):	Received:	Status:
	TM17 (LC-QQ LC MS/MS)	01Mar2023	NA

Pesticides

	Dynamic Range (ppb)	**Result** (ppb)
Abamectin	312 - 2676	ND
Acephate	41 - 2833	ND
Acetamiprid	39 - 2779	ND
Azoxystrobin	43 - 2696	ND
Bifenazate	44 - 2698	ND
Boscalid	41 - 2712	ND
Carbaryl	43 - 2709	ND
Carbofuran	42 - 2706	ND
Chlorantraniliprole	40 - 2725	ND
Chlorpyrifos	60 - 2785	ND
Clofentezine	273 - 2762	ND
Diazinon	295 - 2731	ND
Dichlorvos	279 - 2810	ND
Dimethoate	40 - 2788	ND
E-Fenpyroximate	296 - 2739	ND
Etofenprox	36 - 2711	ND
Etoxazole	296 - 2711	ND
Fenoxycarb	40 - 2711	ND
Fipronil	44 - 2774	ND
Flonicamid	51 - 2765	ND
Fludioxonil	309 - 2726	ND
Hexythiazox	53 - 2723	ND
Imazalil	288 - 2728	ND
Imidacloprid	44 - 2783	ND
Kresoxim-methyl	47 - 2754	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	294 - 2699	ND
Metalaxyl	45 - 2737	ND
Methiocarb	41 - 2727	ND
Methomyl	37 - 2817	ND
MGK 264 1	155 - 1671	ND
MGK 264 2	112 - 1145	ND
Myclobutanil	38 - 2722	ND
Naled	42 - 2749	ND
Oxamyl	39 - 2802	ND
Paclobutrazol	45 - 2659	ND
Permethrin	296 - 2719	ND
Phosmet	45 - 2702	ND
Prophos	298 - 2758	ND
Propoxur	40 - 2713	ND
Pyridaben	301 - 2724	ND
Spinosad A	33 - 2224	ND
Spinosad D	48 - 492	ND
Spiromesifen	278 - 2794	ND
Spirotetramat	279 - 2716	ND
Spiroxamine 1	18 - 1169	ND
Spiroxamine 2	24 - 1530	ND
Tebuconazole	294 - 2694	ND
Thiacloprid	40 - 2781	ND
Thiamethoxam	41 - 2781	ND
Trifloxystrobin	42 - 2714	ND

Final Approval

Sam Smith
06Mar2023
09:57:00 AM MST
PREPARED BY / DATE

Karen Winternheimer
06Mar2023
10:05:00 AM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/181e4250-a973-41c6-bb92-f7fbc6cae57a

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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CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Mycotoxins**	**09Mar2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000237156	08Mar2023	N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 01Mar2023	Status: Active

Mycotoxins	**Dynamic Range** (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	2.22 - 130.59	ND	N/A
Aflatoxin B1	0.94 - 32.44	ND	
Aflatoxin B2	0.91 - 32.13	ND	
Aflatoxin G1	0.91 - 32.79	ND	
Aflatoxin G2	2.10 - 32.63	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Samantha Smith

Sam Smith
09Mar2023
07:45:00 AM MST

PREPARED BY / DATE

K Winternheimer

Karen Winternheimer
09Mar2023
07:48:00 AM MST

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/0549b4de-cbc8-45be-ab22-4618a17f4166

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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CERTIFICATE OF ANALYSIS

1350 mg CBD Tincture- Mint

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230919A	**Microbial Contaminants**	**25Sep2023**	N/A
Matrix: Finished Product	Test ID: T000256847	Started: 21Sep2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 21Sep2023	Status: Active

Microbial Contaminants

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10^0 CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	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

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/c286fab2-081a-4ff3-b4ad-a6ba0045caff

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 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 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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