



CERTIFICATE OF ANALYSIS

PRODUCT NAME: Certified Organic Joy Organics CBD Salve
PRODUCT STRENGTH: 500 mg
FILL LOT NUMBER: 210581140 & 210201140
BEST BY DATE: 5/23/24

Physical Attributes

Test	Method	Specification	Results
Color	SOP-100	Light off white to yellow opaque, hint of green	PASS
Odor	SOP-100	Lavender, eucalyptus, hint of beeswax and coconut	PASS
Appearance	SOP-100	Firm, semi-waxy salve in container with screw lid	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and pressure seal intact	PASS
Secondary Package Eval.	SOP-132	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	SOP-111	500- 650 mg CBD LOQ**: 10 PPM† (0.001%)	564mg	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	ND	PASS
Compliant Pesticide Panel	SOP-111	WIP-100008 : Product specification for topicals, Oregon Action limits apply	ND	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	Below LOQ	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	Below LOQ	PASS
Microbial - Yeast and Mold	SOP-111	Complies with USP 61/62	Below LOQ	PASS
CA Compliant Heavy Metal Panel	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	ND	PASS

* *Level of Quantitation, † Parts Per Million

Quality Certified

6/15/22

Date

CERTIFICATE OF ANALYSIS

Prepared for:
JOY ORGANICS

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

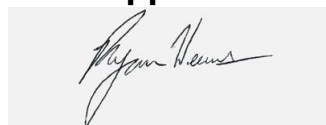
Organic 1oz Salve 500mg CBD

Batch ID or Lot Number: 210581140	Test: Potency	Reported: 07Jun2022	USDA License: N/A
Matrix: Unit	Test ID: T000209392	Started: 07Jun2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 07Jun2022	Status: Active

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	1.905	6.074	ND	ND	# of Servings = 1 Sample Weight=27.4g
Cannabichromenic Acid (CBCA)	1.742	5.555	ND	ND	
Cannabidiol (CBD)	5.324	15.659	564.613	20.61	
Cannabidiolic Acid (CBDA)	5.461	16.060	ND	ND	
Cannabidivarin (CBDV)	1.259	3.703	<LOQ	0.12	
Cannabidivarinic Acid (CBDVA)	2.278	6.700	ND	ND	
Cannabigerol (CBG)	1.082	3.448	59.326	2.17	
Cannabigerolic Acid (CBGA)	4.522	14.416	ND	ND	
Cannabinol (CBN)	1.411	4.499	ND	ND	
Cannabinolic Acid (CBNA)	3.085	9.836	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	5.387	17.175	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	4.892	15.598	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	4.335	13.820	ND	ND	
Tetrahydrocannabivarin (THCV)	0.984	3.137	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	3.823	12.189	ND	ND	
Total Cannabinoids			627.358	22.90	
Total Potential THC			ND	ND	
Total Potential CBD			564.613	20.61	

Final Approval



Ryan Weems
07Jun2022
04:41:00 PM MDT

PREPARED BY / DATE



Jacob Miller
07Jun2022
04:44:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/5040a5a6-cdf9-409e-9776-25ad2803a681>

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 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 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified

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CERTIFICATE OF ANALYSIS

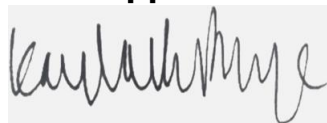
Prepared for:

JOY ORGANICS5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528**Organic 1oz Salve 500mg CBD**

Batch ID or Lot Number: 210581140	Test: Heavy Metals	Reported: 08Jun2022	USDA License: NA
Matrix: Unit Co	Test ID: T000209395	Started: 08Jun2022	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 07Jun2022	Status: NA

Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.53	ND	
Cadmium	0.04 - 4.42	ND	
Mercury	0.05 - 4.56	ND	
Lead	0.05 - 4.75	ND	

Final ApprovalKayla Phye
08Jun2022
03:27:00 PM MDT

PREPARED BY / DATE

Ryan Weems
08Jun2022
03:30:00 PM MDT

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/9e36a45f-e0e0-40cf-928e-0721a57179eb>**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

Prepared for:
JOY ORGANICS

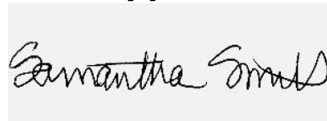
5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

Organic 1oz Salve 500mg CBD

Batch ID or Lot Number: 210581140	Test: Mycotoxins	Reported: 09Jun2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000209397	Started: 08Jun2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 07Jun2022	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	4.02 - 131.71	ND	N/A
Aflatoxin B1	0.98 - 33.52	ND	
Aflatoxin B2	1.05 - 33.32	ND	
Aflatoxin G1	0.95 - 33.42	ND	
Aflatoxin G2	1.18 - 33.06	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval



Sam Smith
09Jun2022
10:50:00 AM MDT

PREPARED BY / DATE



Ryan Weems
09Jun2022
10:52:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8438ba7c-b27f-45cd-a4c2-9b4d0c926c4f>

Definitions

ND = None Detected (defined by dynamic range of the method)
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Cert #4329.02

CDPHE Certified

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CERTIFICATE OF ANALYSIS

 Prepared for:
JOY ORGANICS


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

Organic 1oz Salve 500mg CBD

Batch ID or Lot Number: 210581140	Test: Microbial Contaminants	Reported: 10Jun2022	USDA License: N/A
Matrix: Finished Product	Test ID: T000209394	Started: 07Jun2022	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 07Jun2022	Status: Active

Microbial
Contaminants

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


 Eden Thompson-Wright
 10Jun2022
 12:30:00 PM MDT



 Carly Bader
 10Jun2022
 01:43:00 PM MDT


PREPARED BY / DATE

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/1d0246f9-139d-4b6c-9e16-e1014d33cc15>
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
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
 STEC = Shiga Toxin-Producing E. coli

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CDPHE Certified

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CERTIFICATE OF ANALYSIS

Prepared for:
JOY ORGANICS

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

Organic 1oz Salve 500mg CBD

Batch ID or Lot Number: 210581140	Test: Residual Solvents	Reported: 10Jun2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000209396	Started: 09Jun2022	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 07Jun2022	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	96 - 1916	ND	
Butanes (Isobutane, n-Butane)	193 - 3863	ND	
Methanol	74 - 1470	ND	
Pentane	113 - 2263	ND	
Ethanol	105 - 2106	ND	
Acetone	108 - 2165	ND	
Isopropyl Alcohol	107 - 2146	ND	
Hexane	7 - 139	ND	
Ethyl Acetate	110 - 2208	ND	
Benzene	0.2 - 4.3	ND	
Heptanes	120 - 2401	ND	
Toluene	19 - 381	ND	
Xylenes (m,p,o-Xylenes)	141 - 2812	ND	

Final Approval



Karen Winternheimer
10Jun2022
09:54:00 AM MDT

PREPARED BY / DATE



Ryan Weems
10Jun2022
09:56:00 AM MDT

APPROVED BY / DATE



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Definitions

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