

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Joy Organics CBD Cream
PRODUCT STRENGTH: 1000 mg / bottle
BATCH: 22167-11
BEST BY DATE: 7/14/2024

Physical Attributes


Test	Method	Specification	Results
Color	Joy Internal	off white to light cream	PASS
Odor	Joy Internal	Neutral with light hemp/CBD oil scent	PASS
Appearance	Joy Internal	Medium viscosity skin cream in white tube	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and tamper evident label 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	LOQ*: ≥ 1000 mg / bottle	1144mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.01% THC (Broad Spectrum)	Below LOQ	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	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 < 5ppb	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
 **Colony Forming Units per Gram
 † Parts Per Million †† Part Per Billion

Values expressed in scientific notation.
 Examples:
 10²=100
 10³=1,000

Quality Certified  3/10/2023

 Name Date



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 22-008528/D002.R000
Report Date: 07/22/2022
ORELAP#: OR100028
Purchase Order: PO-10633
Received: 07/20/22 11:25

Customer: Joy Organics
Product identity: CBD Cream
Client/Metric ID: 22167-11
Laboratory ID: 22-008528-0001

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBD	1.01		%		CBD-Total per Serving Size 10.1 mg/1g
CBG	0.0930		%		
Analyte per 1g	Result	Limits	Units	Status	
CBD per 1g	10.1		mg/1g		(Reported in milligrams per serving)
CBG per 1g	0.930		mg/1g		
					THC-Total per Serving Size <LOQ



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Report Date: 07/22/2022
ORELAP#: OR100028
Purchase Order: PO-10633
Received: 07/20/22 11:25

Customer: Joy Organics
Product identity: CBD Cream 250mg
Client/Metric ID: 22167-11
Laboratory ID: 22-008528-0001 No
Evidence of Cooling: 23.9 °C
Temp: Relinquished UPS
by: Serving Size #1: 1 g

Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod) ^b	Units %	Batch: 2206210	Analyze: 7/22/22 2:40:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBD	1.01		%	0.0327	
CBD-A	< LOQ		%	0.00327	
CBD-Total	1.01		%	0.0355	
CBG	0.0930		%	0.00327	
CBG-A	< LOQ		%	0.00327	
CBG-Total	0.0930		%	0.00610	
CBN	< LOQ		%	0.00327	
Δ8-THC	< LOQ		%	0.00327	
Δ9-THC	< LOQ		%	0.00327	
THC-A	< LOQ		%	0.00327	
THC-Total	< LOQ		%	0.00613	
Total Cannabinoids	1.10		%		

Potency per 1g	Method: J AOAC 2015 V98-6 (mod) ^b	Units mg/se	Batch: 2206210	Analyze: 7/22/22 2:40:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBD per 1g	10.1		mg/1g	0.327	
CBD-A per 1g	< LOQ		mg/1g	0.0327	
CBD-Total per 1g	10.1		mg/1g	0.355	
CBG per 1g	0.930		mg/1g	0.0327	
CBG-A per 1g	< LOQ		mg/1g	0.0327	
CBG-Total per 1g	0.930		mg/1g	0.0610	
CBN per 1g	< LOQ		mg/1g	0.0327	
Δ8-THC per 1g	< LOQ		mg/1g	0.0327	
Δ9-THC per 1g	< LOQ		mg/1g	0.0327	
THC-A per 1g	< LOQ		mg/1g	0.0327	
THC-Total per 1g	< LOQ		mg/1g	0.0613	

Prepared for:

HPC1000-22167-10 CBD Cream

JOY ORGANICS


Batch ID or Lot Number: 22167-11	Test: Microbial Contaminants	Reported: 8/22/22	L
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Matrix: Finished Product	Test ID: T000218088	Started: 8/16/22	USDA License: N/A
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Status: Active	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial	Received: 08/16/2022 @ 11:04 AM	Sampler ID: N/A
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MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	QUANTITATION RANGE	Result	Notes
Total Aerobic Count*	TM-26, Culture Plating	10 ² CFU/g	2.0x10 ³ - 3.0x10 ⁵ CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
Total Coliforms*	TM-27, Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴ CFU/g	None Detected	
Total Yeast and Mold*	TM-24, Culture Plating	10 ¹ CFU/g	2.0x10 ² - 3.0x10 ⁴ CFU/g	None Detected	
STEC	TM-25, PCR	10 ⁰ CFU/25 g	N/A	Absent	
Salmonella	TM-25, PCR	10 ⁰ CFU/25 g	N/A	Absent	


Brett Hudson
8/22/2022
4:23:00 PM


Eden Thompson-Wright
8/22/2022
5:14:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

* 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

Testing results are based solely upon the sample submitted to SC Laboratories, Inc. 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. All decision rulings are in accordance with the MED and results uploaded to METRC. This report may not be reproduced, except in full, without the written approval of SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited A2LA Certificate Number 4329.01



CDPHE Certified



Certificate #4329.02

HPC1000-22167-11 CBD Cream


Batch ID or Lot Number: 22167-11	Test, Test ID and Methods: Various	Matrix: Topical	Page 1 of 4
Reported: 18Aug2022	Started: 17Aug2022	Received: 16Aug2022	

**Residual Solvents -
Colorado Compliance**


Test ID: T000218090
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1963	ND	
Butanes (Isobutane, n-Butane)	203 - 4065	ND	
Methanol	69 - 1376	ND	
Pentane	107 - 2141	ND	
Ethanol	104 - 2076	ND	
Acetone	113 - 2257	ND	
Isopropyl Alcohol	116 - 2321	148	
Hexane	7 - 136	ND	
Ethyl Acetate	113 - 2269	ND	
Benzene	0.2 - 4.5	ND	
Heptanes	113 - 2258	ND	
Toluene	20 - 403	ND	
Xylenes (m,p,o-Xylenes)	150 - 2997	ND	

Final Approval


Samantha Smith
19Aug2022
06:37:00 PM MDT

PREPARED BY / DATE


Daniel Weidensaul
19Aug2022
06:51:00 PM MDT

APPROVED BY / DATE

HPC1000-22167-11 CBD Cream

Batch ID or Lot Number: 22167-11	Test, Test ID and Methods: Various	Matrix: Topical	Page 2 of 4
Reported: 18Aug2022	Started: 17Aug2022	Received: 16Aug2022	


Pesticides


Test ID: T000218087

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	308 - 2732	ND		Malathion	270 - 2721	ND
Acephate	40 - 2787	ND		Metalaxyl	44 - 2712	ND
Acetamiprid	40 - 2697	ND		Methiocarb	38 - 2734	ND
Azoxystrobin	41 - 2712	ND		Methomyl	39 - 2706	ND
Bifenazate	41 - 2673	ND		MGK 264 1	158 - 1631	ND
Boscalid	39 - 2759	ND		MGK 264 2	113 - 1163	ND
Carbaryl	39 - 2720	ND		Myclobutanil	44 - 2705	ND
Carbofuran	43 - 2690	ND		Naled	48 - 2733	ND
Chlorantraniliprole	38 - 2716	ND		Oxamyl	40 - 2690	ND
Chlorpyrifos	41 - 2732	ND		Paclobutrazol	42 - 2711	ND
Clofentezine	289 - 2730	ND		Permethrin	293 - 2771	ND
Diazinon	290 - 2770	ND		Phosmet	39 - 2677	ND
Dichlorvos	277 - 2714	ND		Prophos	281 - 2721	ND
Dimethoate	42 - 2706	ND		Propoxur	42 - 2700	ND
E-Fenpyroximate	286 - 2760	ND		Pyridaben	295 - 2764	ND
Etofenprox	41 - 2760	ND		Spinosad A	30 - 2258	ND
Etoxazole	288 - 2736	ND		Spinosad D	47 - 504	ND
Fenoxycarb	41 - 2701	ND		Spiromesifen	272 - 2759	ND
Fipronil	40 - 2771	ND		Spirotetramat	265 - 2748	ND
Flonicamid	47 - 2738	ND		Spiroxamine 1	17 - 1172	ND
Fludioxonil	256 - 2768	ND		Spiroxamine 2	23 - 1571	ND
Hexythiazox	40 - 2773	ND		Tebuconazole	302 - 2715	ND
Imazalil	274 - 2744	ND		Thiacloprid	42 - 2687	ND
Imidacloprid	41 - 2733	ND		Thiamethoxam	37 - 2727	ND
Kresoxim-methyl	22 - 2788	ND		Trifloxystrobin	41 - 2734	ND

Final Approval


 Sam Smith
 18Aug2022
 02:14:00 PM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 19Aug2022
 12:39:00 PM MDT
 APPROVED BY / DATE

HPC1000-22167-11 CBD Cream


Batch ID or Lot Number: 22167-11	Test, Test ID and Methods: Various	Matrix: Topical	Page 3 of 4
Reported: 18Aug2022	Started: 17Aug2022	Received: 16Aug2022	

Mycotoxins - Colorado Compliance

Test ID: T000218091
Methods: TM18 (UHPLC-QQQ)
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.41 - 128.60	ND	N/A
Aflatoxin B1	1.36 - 33.06	ND	
Aflatoxin B2	1.17 - 32.90	ND	
Aflatoxin G1	1.02 - 33.44	ND	
Aflatoxin G2	1.05 - 33.51	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Samantha Smith
22Aug2022
02:59:00 PM MDT
PREPARED BY / DATE


Jacob Miller
22Aug2022
03:00:00 PM MDT
APPROVED BY / DATE

Heavy Metals - Colorado Compliance

Test ID: T000218089
Methods: TM19 (ICP-MS): Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.56	ND	
Cadmium	0.04 - 4.44	ND	
Mercury	0.04 - 4.49	ND	
Lead	0.04 - 4.39	ND	

Final Approval


Daniel Weidensaul
24Aug2022
06:50:00 PM MDT
PREPARED BY / DATE


Courtney Richards
24Aug2022
08:09:00 PM MDT
APPROVED BY / DATE