

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics CBD Cream  
**PRODUCT STRENGTH:** 250 mg / bottle  
**BATCH:** 22167-10  
**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 container with clear cap	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
<b>Potency - Total CBD</b>	HPLC-UV DAD	LOQ*: ≥ 250 mg / bottle	<b>286mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% THC (Broad Spectrum)	<b>Below LOQ</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 **CFU/25	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb†† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS

\*Level of Quantification  
 \*\*Colony Forming Units per Gram  
 † Parts Per Million †† Part Per Billion

Values expressed in scientific notation.  
 Examples:  
 10<sup>2</sup>=100  
 10<sup>3</sup>=1,000

Quality Certified  9/7/2022  
 \_\_\_\_\_  
 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:** 22167-10  
**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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**ORELAP#:** OR100028  
**Purchase Order:** PO-10633  
**Received:** 07/20/22 11:25

**Customer:** Joy Organics  
**Product identity:** CBD Cream 250mg  
**Client/Metric ID:** 22167-10  
**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) <sup>b</sup>		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	
<b>Total Cannabinoids</b>	<b>1.10</b>		%		

Potency per 1g	Method: J AOAC 2015 V98-6 (mod) <sup>b</sup>		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	

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Prepared for:

**HPC250-22167-10 CBD Cream**

**JOY ORGANICS**


Batch ID or Lot Number: <b>22167-10</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>8/22/22</b>	Location: 5042 Technology Parkway Ste. 50 FT. COLLINS, CO 80528
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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
<b>Total Aerobic Count*</b>	TM-26, Culture Plating	10 <sup>2</sup> CFU/g	2.0x10 <sup>3</sup> - 3.0x10 <sup>5</sup> CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
<b>Total Coliforms*</b>	TM-27, Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>1</sup> CFU/g	2.0x10 <sup>2</sup> - 3.0x10 <sup>4</sup> CFU/g	None Detected	
<b>STEC</b>	TM-25, PCR	10 <sup>0</sup> CFU/25 g	N/A	Absent	
<b>Salmonella</b>	TM-25, PCR	10 <sup>0</sup> 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:  
10<sup>2</sup> = 100 CFU  
10<sup>3</sup> = 1,000 CFU  
10<sup>4</sup> = 10,000 CFU  
10<sup>5</sup> = 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

Prepared for:

**JOY ORGANICS**

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

## HPC250-22167-10 CBD Cream

Batch ID or Lot Number: <b>22167-10</b>	Test, Test ID and Methods: Various	Matrix: Topical	Page 1 of 4
Reported: <b>18Aug2022</b>	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

Prepared for:

**JOY ORGANICS**

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

## HPC250-22167-10 CBD Cream

Batch ID or Lot Number: <b>22167-10</b>	Test, Test ID and Methods: Various	Matrix: Topical	Page 2 of 4
Reported: <b>18Aug2022</b>	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

Prepared for:

**JOY ORGANICS**

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

## HPC250-22167-10 CBD Cream

Batch ID or Lot Number: <b>22167-10</b>	Test, Test ID and Methods: Various	Matrix: Topical	Page 3 of 4
Reported: <b>18Aug2022</b>	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

  
Sam 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