

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Joy Organics CBD Cream
PRODUCT STRENGTH: 1000 mg / bottle
BATCH: 23094-22
BEST BY DATE: 4/15/2025

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
Potency - Total CBD	HPLC-UV DAD	LOQ*: ≥ 1000 mg / bottle	1156mg	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 < 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
 **Colony Forming Units per Gram
 † Parts Per Million †† Part Per Billion

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

Quality Certified  Date 5/3/2023
 Name _____ Date _____

1000mg Unscented CBD Cream


Batch ID or Lot Number: 23094-22	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 6
Reported: 24Apr2023	Started: 21Apr2023	Received: 21Apr2023	

Cannabinoids - Colorado Compliance

Test ID: T000241984
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.007	0.019	ND	ND	
Cannabichromenic Acid (CBCA)	0.007	0.018	ND	ND	
Cannabidiol (CBD)	0.022	0.054	1.020	10.20	
Cannabidiolic Acid (CBDA)	0.022	0.055	ND	ND	
Cannabidivarin (CBDV)	0.005	0.013	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.009	0.023	ND	ND	
Cannabigerol (CBG)	0.004	0.011	0.052	0.52	
Cannabigerolic Acid (CBGA)	0.017	0.046	ND	ND	
Cannabinol (CBN)	0.005	0.014	ND	ND	
Cannabinolic Acid (CBNA)	0.012	0.031	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.021	0.055	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.019	0.050	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.017	0.044	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.010	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.015	0.039	ND	ND	
Total Cannabinoids			1.072	10.72	
Total Potential THC			ND	ND	
Total Potential CBD			1.020	10.20	

Final Approval


 Sam Smith
 24Apr2023
 01:17:00 PM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 24Apr2023
 01:22:00 PM MDT
 APPROVED BY / DATE

1000mg Unscented CBD Cream


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Mycotoxins - Colorado Compliance

Test ID: T000241989
Methods: TM18 (UHPLC-QQQ)
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.40 - 133.56	ND	N/A
Aflatoxin B1	0.96 - 33.40	ND	
Aflatoxin B2	1.03 - 33.53	ND	
Aflatoxin G1	0.99 - 33.62	ND	
Aflatoxin G2	1.03 - 33.72	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Samantha Smith
25Apr2023
04:58:00 PM MDT
PREPARED BY / DATE



Karen Winternheimer
25Apr2023
05:09:00 PM MDT
APPROVED BY / DATE

Microbial Contaminants - Colorado Compliance

Test ID: T000241986
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	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


Brienne Maillot
24Apr2023
04:51:00 PM MDT
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Eden Thompson-Wright
25Apr2023
09:36:00 AM MDT
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1000mg Unscented CBD Cream


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**Heavy Metals -
Colorado Compliance**

Test ID: T000241987
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.36	ND	
Cadmium	0.04 - 4.35	ND	
Mercury	0.05 - 4.52	ND	
Lead	0.04 - 4.47	ND	

Final Approval


 Sam Smith
 26Apr2023
 03:52:00 PM MDT
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 Karen Winternheimer
 26Apr2023
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1000mg Unscented CBD Cream


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**Residual Solvents -
Colorado Compliance**


Test ID: T000241988
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1969	ND	
Butanes (Isobutane, n-Butane)	202 - 4047	ND	
Methanol	63 - 1254	ND	
Pentane	101 - 2017	ND	
Ethanol	104 - 2086	ND	
Acetone	103 - 2061	ND	
Isopropyl Alcohol	106 - 2127	ND	
Hexane	6 - 121	ND	
Ethyl Acetate	103 - 2057	ND	
Benzene	0.2 - 4.2	ND	
Heptanes	111 - 2218	ND	
Toluene	19 - 377	ND	
Xylenes (m,p,o-Xylenes)	135 - 2703	ND	

Final Approval


Sam Smith
26Apr2023
03:01:00 PM MDT

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Karen Winternheimer
26Apr2023
03:03:00 PM MDT

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1000mg Unscented CBD Cream

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Pesticides


Test ID: T000241985

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	306 - 2596	ND		Malathion	285 - 2764	ND
Acephate	45 - 2781	ND		Metalaxyl	40 - 2734	ND
Acetamiprid	42 - 2707	ND		Methiocarb	46 - 2764	ND
Azoxystrobin	44 - 2716	ND		Methomyl	42 - 2765	ND
Bifenazate	41 - 2745	ND		MGK 264 1	173 - 1707	ND
Boscalid	42 - 2705	ND		MGK 264 2	120 - 1074	ND
Carbaryl	43 - 2723	ND		Myclobutanil	40 - 2755	ND
Carbofuran	42 - 2741	ND		Naled	59 - 2720	ND
Chlorantraniliprole	44 - 2778	ND		Oxamyl	42 - 2746	ND
Chlorpyrifos	40 - 2680	ND		Paclobutrazol	44 - 2716	ND
Clofentezine	293 - 2743	ND		Permethrin	290 - 2751	ND
Diazinon	294 - 2730	ND		Phosmet	41 - 2724	ND
Dichlorvos	258 - 2731	ND		Prophos	326 - 2730	ND
Dimethoate	41 - 2706	ND		Propoxur	40 - 2714	ND
E-Fenpyroximate	283 - 2751	ND		Pyridaben	295 - 2692	ND
Etofenprox	43 - 2684	ND		Spinosad A	30 - 2073	ND
Etoxazole	294 - 2687	ND		Spinosad D	65 - 656	ND
Fenoxycarb	42 - 2732	ND		Spiromesifen	280 - 2752	ND
Fipronil	49 - 2742	ND		Spirotetramat	289 - 2782	ND
Flonicamid	49 - 2777	ND		Spiroxamine 1	19 - 1205	ND
Fludioxonil	289 - 2766	ND		Spiroxamine 2	25 - 1526	ND
Hexythiazox	45 - 2741	ND		Tebuconazole	289 - 2748	ND
Imazalil	275 - 2727	ND		Thiacloprid	43 - 2695	ND
Imidacloprid	47 - 2738	ND		Thiamethoxam	46 - 2735	ND
Kresoxim-methyl	25 - 2737	ND		Trifloxystrobin	44 - 2702	ND

Final Approval


 Karen Winternheimer
 28Apr2023
 11:39:00 AM MDT
 PREPARED BY / DATE


 Sam Smith
 28Apr2023
 11:42:00 AM MDT
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