



JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Joy Organics CBD Cream
PRODUCT STRENGTH:	250 mg
BEST BY DATE:	11/24/2022
FILL LOT NUMBER:	20321-07
HEMP EXTRACT LOT NUMBER:	B0914-001

Click on the links to view third-party reports

Physical Attributes

Test	Method	Specification	Results
Color	SOP-100	Off-white to light cream	PASS
Odor	SOP-100	Neutral with light hemp/CBD oil scent	PASS
Appearance	SOP-100	Medium viscosity skin cream in white container with clear cap	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and tamper evident label 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	237.5-312.5 mg CBD LOQ**: 10 PPM† (0.001%)	306.5 mg	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	ND	PASS
FL Compliant Pesticide Panel	SOP-111	Florida State Hemp Program Rule 5B-57.014: Action Limits for Pesticides	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 - Aspergillus	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	Below LOQ	PASS

** Level of Quantitation, † Parts Per Million

Quality Certified by: Kei Horikawa 12/14/2020
 Kei Horikawa Date
 Quality Control Manager



total cannabinoids	Δ^9 -THC	THCa	total THC
317 mg	0.0 mg	0.0 mg	0.0 mg
per	CBD	CBDa	total CBD
30mL	306.5 mg	0.0 mg	306.5 mg

Lot/Batch# 20321-07

This Product Has Been Tested and Complies with 7USC1639o(1) Definition of Hemp



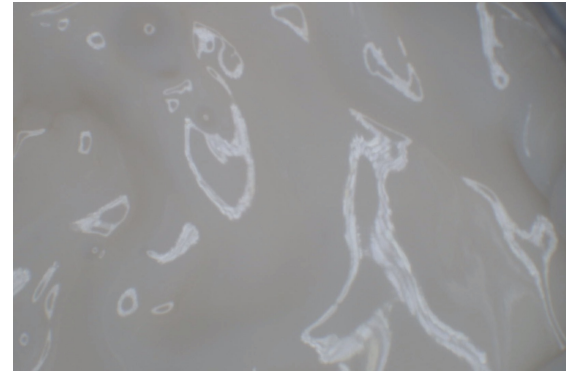
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<https://portal.a2la.org/scopepdf/4961-01.pdf>

Sample Handling

test ID	sample wt	118.0 g
type	order	8966
lab ID	sample date	11/19/2020
unit	unit weight	28.5 g

topical



Methods

method	equipment
weights	MSP-7.3.1.3 AUX120.1
potency	MSP-7.5.1.5 LC-2030
terpenes	MSP-7.5.1.7 QP2020/HS20
pesticides	MSP-7.5.1.8 LC-8060
mycotoxins	MSP-7.5.1.8 LC-8060
microbial	MSP-7.5.1.1 AriaMx/Hardy
solvents	MSP-7.5.1.6 QP2020/HS20
metals	MSP-7.5.1.1 ICPMS2030

Potency	per	30mL	estimated error	Terpenes	%	estimated error	%	estimated error	%	estimated error
tetrahydrocannabinolic acid (THCa)	0%	0.0 mg	± 0.47 mg	terpenes not tested / not required						
Δ^9 -tetrahydrocannabinol (Δ^9 THC)	0%	0.0 mg	± 0.47 mg							
Δ^8 -tetrahydrocannabinol (Δ^8 THC)	0%	0.0 mg	± 0.47 mg							
tetrahydrocannabivarin (THCv)	0%	0.0 mg	± 0.47 mg							
cannabidiolic acid (CBDa)	0%	0.0 mg	± 0.47 mg							
cannabidiol (CBD)	1.08%	306.5 mg	± 2.79 mg							
cannabidivarin (CBDv)	0%	0.0 mg	± 0.47 mg							
cannabigerolic acid (CBGa)	0%	0.0 mg	± 0.47 mg							
cannabigerol (CBG)	.04%	10.3 mg	± 0.69 mg							
cannabinol (CBN)	0%	0.0 mg	± 0.47 mg							
cannabichromene (CBC)	0%	0.0 mg	± 0.47 mg							

Solvents	MT limit	0LR02	LOQ	Pesticides (MT)	MT limit	0LR02	LOQ	Pesticides (other)	0LR02	LOQ
				abamectin	0.00 ppm	<10ppb		acephate	0.00 ppm	<10ppb
				acequinocyl	0.00 ppm	<10ppb		acetamiprid	0.00 ppm	<10ppb
				bifenazate	0.00 ppm	<10ppb		aldicarb	0.00 ppm	<10ppb
				bifenthrin	0.00 ppm	<10ppb		azoxystrobin	0.00 ppm	<10ppb
				chlormequat cl.	0.00 ppm	<10ppb		boscalid	0.00 ppm	<10ppb
				cyfluthrin	0.00 ppm	<80ppb		carbaryl	0.00 ppm	<10ppb
				diaminozide	0.00 ppm	<10ppb		carbofuran	0.00 ppm	<10ppb
				etoxazole	0.00 ppm	<10ppb		chlorantraniliprole	0.00 ppm	<10ppb
				fenoxycarb	0.00 ppm	<10ppb		chlorpyrifos	0.00 ppm	<10ppb
				imazalil	0.00 ppm	<10ppb		clofentazine	0.00 ppm	<10ppb
				imidacloprid	0.00 ppm	<10ppb		cypermethrin	0.00 ppm	<10ppb
				myclobutanil	0.00 ppm	<10ppb		diazinon	0.00 ppm	<10ppb
				paclobutrazol	0.00 ppm	<10ppb		dichlorvos	0.00 ppm	<10ppb
				pyrethrins	0.00 ppm	<10ppb		dimethoate	0.00 ppm	<10ppb
				spinosad	0.00 ppm	<10ppb		etofenprox	0.00 ppm	<10ppb
				spiromesifen	0.00 ppm	<10ppb		fenpyroximate	0.00 ppm	<10ppb
				spirotetramat	0.00 ppm	<10ppb		fipronil	0.00 ppm	<10ppb
				trifloxystrobin	0.00 ppm	<10ppb		flonicamid	0.00 ppm	<10ppb

Toxic Metals	MT limit	0LR02	LOQ
arsenic	2 ppm	0.0 ppm	<10ppb
cadmium	4.1 ppm	0.0 ppm	<10ppb
lead	1.2 ppm	0.0 ppm	<10ppb
mercury	0.4 ppm	0.0 ppm	<10ppb

Microbial	MT limit	0LR02	LOQ
<i>E. coli</i>	10 CFU	0 CFU	<10 CFU/g
Salmonella sp.	10 CFU	0 CFU	<10 CFU/g
molds	10000 CFU	10 CFU	<10k CFU/g
Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb	<20 ppb
Ochratoxin A	20 ppb	0 ppb	<20 ppb

Comments

- Potency repeated with similar results
- Density 0.95g/mL

Certified by:

Kyle Larson, MSc (Biology)
Deputy Director
6073 US93N, Olney MT 59927
406-881-2019 rdb@stlwlabs.com

• All testing was completed onsite at 6073 US93N, Olney MT •• Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]_{HPLC} x volume_{dilution}/m_{dry}. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)_{GCMS} / m_{dry}. ••• Decarboxyted cannabinoid concentration is calculated from the equation XXX_{total} = 0.877 x XXX_a + XXX •••• Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; this is combined with error from weighing and dilution using the propagation of error formula s_g² = Σ (∂f/∂i)²s_i² where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t_{CL90} x s_g. Sampling error is not

malathion	0.00 ppm	<10ppb
metalaxyl	0.00 ppm	<10ppb
methiocarb	0.00 ppm	<10ppb
methomyl	0.00 ppm	<10ppb
oxamyl	0.00 ppm	<10ppb
permethrins	0.00 ppm	<10ppb
phosmet	0.00 ppm	<10ppb
piperonyl butoxide	0.00 ppm	<10ppb
prallethrin	0.00 ppm	<10ppb
propiconazole	0.00 ppm	<10ppb
pyridaben	0.00 ppm	<10ppb
spiroxamine	0.00 ppm	<10ppb
tebuconazole	0.00 ppm	<10ppb
thiacloprid	0.00 ppm	<10ppb
thiamethoxam	0.00 ppm	<10ppb



total cannabinoids		CBD	THC
		total 84.4%	0.0%
86.4%	decarb total	84.23%	0%
24643			

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https://portal.a2la.org/scopepdf/4961-01.pdf

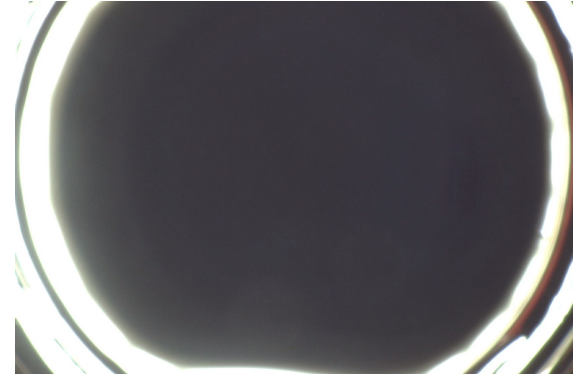
Sample Handling

test ID sample date 9/15/20 2:05 PM
 order 8356 labID OJK39 weight
 source

Methods

method	equipment
weights MSP-7.3.1.3	AUX120.1
potency MSP-7.5.1.5	LC-2030
terpenes MSP-7.5.1.7	QP2020/HS20
pesticides MSP-7.5.1.8	LC-8060
mycotoxins MSP-7.5.1.8	LC-8060
microbial MSP-7.5.1.1	AriaMx RTPCR
solvents MSP-7.5.1.6	QP2020/HS20
metals MSP-7.5.1.11	ICPMS2030

concentrate



Potency	%	estimated error	Terpenes	%	estimated error	%	estimated error
tetrahydrocannabinolic acid (THCa)	0%	± 0.02 %	terpenes not tested / not required				
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	0%	± 0.02 %					
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ THC)	0%	± 0.02 %					
tetrahydrocannabivarin (THCv)	0%	± 0.02 %					
cannabidiolic acid (CBDa)	1.22%	± 0.09 %					
cannabidiol (CBD)	83.16%	± 0.74 %					
cannabidivarin (CBDv)	.51%	± 0.06 %					
cannabigerolic acid (CBGa)	0%	± 0.02 %					
cannabigerol (CBG)	1.51%	± 0.10 %					
cannabinol (CBN)	0%	± 0.02 %					
cannabichromene (CBC)	0%	± 0.02 %					

Solvents	MT limit	OJK39	LOQ	Pesticides (MT)	MT limit	OJK39	LOQ	Pesticides (other)	OJK39	LOQ
propane	5,000	PASS	<10ppm	abamectin	2.50 ppm	PASS	<10ppb	acephate	0.00 ppm	<10ppb
butanes	5,000	PASS	<10ppm	acequinocyl	10.00 ppm	PASS	<10ppb	acetamidiprid	0.00 ppm	<10ppb
pentanes	5,000	PASS	<10ppm	bifenazate	1.00 ppm	PASS	<10ppb	aldicarb	0.00 ppm	<10ppb
hexanes	290	PASS	<10ppm	bifenthrin	1.00 ppm	PASS	<10ppb	azoxystrobin	0.00 ppm	<10ppb
cyclohexane	3,880	PASS	<10ppm	chlormequat cl.	5.00 ppm	PASS	<10ppb	boscalid	0.00 ppm	<10ppb
heptanes	5,000	PASS	<10ppm	cyfluthrin	5.00 ppm	PASS	<80ppb	carbaryl	0.00 ppm	<10ppb
methanol	3,000	PASS	<10ppm	diaminozide	5.00 ppm	PASS	<10ppb	carbofuran	0.00 ppm	<10ppb
isopropanol	5,000	PASS	<10ppm	etoxazole	1.00 ppm	PASS	<10ppb	chloantraniliprole	0.00 ppm	<10ppb
acetone	5,000	PASS	<10ppm	fenoxycarb	1.00 ppm	PASS	<10ppb	chlorpyrifos	0.00 ppm	<10ppb
ethyl acetate	5,000	PASS	<10ppm	imazalil	1.00 ppm	PASS	<10ppb	clofentezine	0.00 ppm	<10ppb
benzene	2	PASS	<0.2ppm	imidacloprid	2.00 ppm	PASS	<10ppb	cypermethrin	0.00 ppm	<10ppb
toluene	890	PASS	<10ppm	myclobutanil	0.60 ppm	PASS	<10ppb	diazinon	0.00 ppm	<10ppb
xylenes	2,170	PASS	<10ppm	paclobutrazol	2.00 ppm	PASS	<10ppb	dichlorvos	0.00 ppm	<10ppb
chloroform	2	PASS	<0.2ppm	pyrethrins	5.00 ppm	PASS	<10ppb	dimethoate	0.00 ppm	<10ppb
dichloromethane	600	PASS	<10ppm	spinosad	1.00 ppm	PASS	<10ppb	etofenprox	0.00 ppm	<10ppb
acetonitrile	NA	N/A	<10ppm	spiromesifen	1.00 ppm	PASS	<10ppb	fenpyroximate	0.00 ppm	<10ppb
ethanol	NA	N/A	<10ppm	spirotetramat	1.00 ppm	PASS	<10ppb	fipronil	0.00 ppm	<10ppb
tetrahydrofuran	NA	N/A	<10ppm	trifloxystrobin	1.00 ppm	PASS	<10ppb	flonicamid	0.00 ppm	<10ppb

Toxic Metals	MT limit	OJK39	LOQ	Microbial	MT limit	OJK39	LOQ
arsenic	2 ppm	PASS	<10ppb	Aflatoxin B1,B2,G1,G2	20 ppb	PASS	<20 ppb
cadmium	4.1 ppm	PASS	<10ppb		Ochratoxin A	20 ppb	PASS
lead	1.2 ppm	PASS	<10ppb				
mercury	0.4 ppm	PASS	<10ppb				

microbial not tested

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 Deputy Director
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permethrins	0.00 ppm	<10ppb
phosmet	0.00 ppm	<10ppb
piperonyl butoxide	0.00 ppm	<10ppb
prallethrin	0.00 ppm	<10ppb
propiconazole	0.00 ppm	<10ppb
pyridaben	0.00 ppm	<10ppb
spiroxamine	0.00 ppm	<10ppb
tebuconazole	0.00 ppm	<10ppb
thiacloprid	0.00 ppm	<10ppb
thiamethoxam	0.00 ppm	<10ppb