JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Joy Organics CBD Softgels with Melatonin
PRODUCT STRENGTH:	25 mg CBD / 1 mg Melatonin
LOT NUMBER:	20336A
BEST BY DATE:	04/29/2022
SOFTGEL LOT NUMBER*:	**ND2520-01**

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	SOP-100	Golden to Amber	PASS
Odor	SOP-100	N/A	PASS
Appearance	SOP-100	Dry, ovoid softgel capsules in container with lid and shrinkband	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and shrink bands 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	23.75-31.25 mg CBD LOQ**: 10 PPM† (0.001%)	**28.8 mg**	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	**ND**	PASS
Compliant Pesticide Panel	SOP-111	WIP-10008 : Product Specification for Softgels, Oregon Action Limits apply	**ND**	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	**BELOW LOD**	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	**BELOW LOD**	PASS
Microbial - Yeast/Mold	SOP-111	Complies with USP 61/62	**BELOW LOD**	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 — Kei Horikawa — 12/11/2020

Kei Horikawa
Quality Control Manager
Date

119 W. Oak St. Fort Collins, CO 80524
Tel: (833) 569-7223 www.joyorganics.com

SGM 20336A

Certificate of Analysis

total cannabinoids
29 mg
per
capsule

Δ9-THC	THCa	total THC
0.00 mg	0.00 mg	0.00 mg

CBD	CBDa	total CBD
28.8 mg	0.00 mg	28.8 mg

Lot# 20336A

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

ISO/IEC 17025:2017
ACCREDITED
Certificate #4961.01
https://portal.a2la.org/scopepdf/4961-01.pdf

Stillwater Laboratories

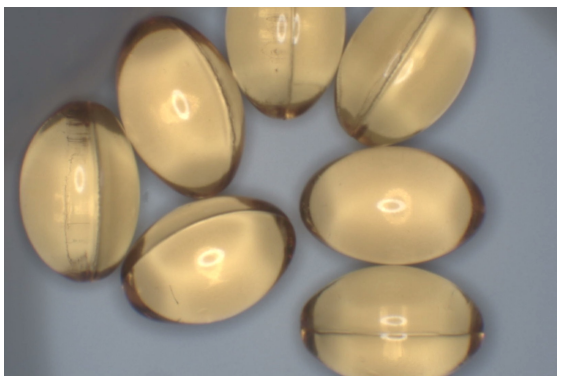
Sample Handling

test ID		sample wt	19.0 g
type	gelcap	order	**9177**
lab ID	**0MJ34**	sample date	12/10/2020
unit	capsule	unit weight	**0.6 g**

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

gelcap



Potency

per capsule			estimated error
tetrahydrocannabolic acid (THCa)	0%	0.00 mg	± 0.01 mg
Δ^9-tetrahydrocannabinol (Δ^9 THC)	0%	0.00 mg	± 0.01 mg
Δ^8-tetrahydrocannabinol (Δ^8 THC)	0%	0.00 mg	± 0.01 mg
tetrahydrocannabivarin (THCv)	0%	0.00 mg	± 0.01 mg
cannabidiolic acid (CBDa)	0%	0.00 mg	± 0.01 mg
cannabidiol (CBD)	4.54%	28.8 mg	± 0.14 mg
cannabidivarin (CBDv)	.08%	0.52 mg	± 0.02 mg
cannabigerolic acid (CBGa)	0%	0.00 mg	± 0.01 mg
cannabigerol (CBG)	0%	0.00 mg	± 0.01 mg
cannabinol (CBN)	0%	0.00 mg	± 0.01 mg
cannabichromene (CBC)	0%	0.00 mg	± 0.01 mg

Terpenes

%	estimated error	%	estimated error	%	estimated error

terpenes
not tested / not required

Solvents

	MT limit	0MJ34	LOQ
propane	5,000	0 ppm	<10ppm
butanes	5,000	0 ppm	<10ppm
pentanes	5,000	0 ppm	<10ppm
hexanes	290	0 ppm	<10ppm
cyclohexane	3,880	0 ppm	<10ppm
heptanes	5,000	0 ppm	<10ppm
methanol	3,000	0 ppm	<10ppm
isopropanol	5,000	0 ppm	<10ppm
acetone	5,000	0 ppm	<10ppm
ethyl acetate	5,000	0 ppm	<10ppm
benzene	2	0 ppm	<0.2ppm
toluene	890	0 ppm	<10ppm
xylenes	2,170	0 ppm	<10ppm
chloroform	2	0 ppm	<0.2ppm
dichloromethane	600	0 ppm	<10ppm
acetonitrile	NA	0 ppm	<10ppm
ethanol	NA	0 ppm	<10ppm
tetrahydrofuran	NA	0 ppm	<10ppm

Toxic Metals

	MT limit	0MJ34	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

Comments

Pesticides (MT)

	MT limit	0MJ34	LOQ
abamectin		0.00 ppm	<10ppb
acequinocyl		0.00 ppm	<10ppb
bifenazate		0.00 ppm	<10ppb
bifenthrin		0.00 ppm	<10ppb
chlormequat cl.		0.00 ppm	<10ppb
cyfluthrin		0.00 ppm	<80ppb
diaminozide		0.00 ppm	<10ppb
etoxazole		0.00 ppm	<10ppb
fenoxycarb		0.00 ppm	<10ppb
imazalil		0.00 ppm	<10ppb
imidacloprid		0.00 ppm	<10ppb
myclobutanil		0.00 ppm	<10ppb
paclobutrazol		0.00 ppm	<10ppb
pyrethrins		0.00 ppm	<10ppb
spinosad		0.00 ppm	<10ppb
spiromesifen		0.00 ppm	<10ppb
spirotetramat		0.00 ppm	<10ppb
trifloxystrobin		0.00 ppm	<10ppb

Microbial

	MT limit	0MJ34	LOQ
E. coli	10 CFU	0 CFU	<10 CFU/g
Salmonella sp.	10 CFU	0 CFU	<10 CFU/g
molds	10000 CFU	0 CFU	<10k CFU/g
Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb	<20 ppb
Ochratoxin A	20 ppb	0 ppb	<20 ppb

Pesticides (other)

	0MJ34	LOQ
acephate	0.00 ppm	<10ppb
acetamiprid	0.00 ppm	<10ppb
aldicarb	0.00 ppm	<10ppb
azoxystrobin	0.00 ppm	<10ppb
boscalid	0.00 ppm	<10ppb
carbaryl	0.00 ppm	<10ppb
carbofuran	0.00 ppm	<10ppb
chloantraniliprole	0.00 ppm	<10ppb
chlorpyrifos	0.00 ppm	<10ppb
clofentezine	0.00 ppm	<10ppb
cypermethrin	0.00 ppm	<10ppb
diazinon	0.00 ppm	<10ppb
dichlorvos	0.00 ppm	<10ppb
dimethoate	0.00 ppm	<10ppb
etofenprox	0.00 ppm	<10ppb
fenpyroximate	0.00 ppm	<10ppb
fipronil	0.00 ppm	<10ppb
flonicamid	0.00 ppm	<10ppb
fludioxonil	0.00 ppm	<10ppb
hexythiazox	0.00 ppm	<10ppb
kresoxym-methyl	0.00 ppm	<10ppb
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

• All testing was completed onsite at 6073 US93N, Olney MT •• Potency (cannabinoid concentration) is calcuated from the equation: [cannabioid] = $[\text{cannabinoid}]_{HPLC} \times \text{volume}_{dilution}/m_{dry}$. Terpene concentration is calcuated from the equation: [terpene] = $(\text{terpene mass})_{GCMS} / m_{dry}$. ••• Decarboxyted cannabinoid concentration is calculated from the equation $XXX_{total} = 0.877 \times XXXa + XXX$ •••• 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 $s_g^2 = \sum(\partial f/\partial i)^2 s_i^2$ where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) $\pm t_{CL90} \times s_g$. Sampling error is not

Certified by:

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CONFIDENTIAL EXTRACTOR

PRODUCT NAME: CBD Soft Gels No Dye Melatonin, 25mg CBD /1mg Melatonin
PRODUCT CODE: GCNDMEL-X-Y-A
LOT NUMBER: GC/Mel/Cham/ND 2520-01
DATE OF MANUFACTURE: 29OCT2020 (DDMMMYYYY) **EXPIRATION DATE:** 29APR2022 *(Expiration date is 18 months under sealed conditions.)*

INGREDIENTS:

Composition of Fill: Polysorbate 80, Polysorbate 20, Fractionated Coconut Oil, Broad Spectrum CBD Oil (0.0% THC), β-Caryophyllene, Melatonin, Roman Chamomile Oil.
Composition of the Shell: Bovine-derived Gelatin, Glycerin, Water

Parameter	Method[1]	Specification	Results	
Appearance	QCU002	Oval soft gelatin capsule	Pass	
Color		Light Translucent Yellow	Pass	
Average Weight (N=10)		For Information Only	635.7 mg	
Cannabinoids	QCU001 (UHPLC-DAD)	**LOQ (ppm)**	**Wt. (%)**	**(mg/g)**
CBD		20	4.437	44.370
CBD-A		20	< LOQ	< LOQ
Δ9-THC		5	< LOQ	< LOQ
THC-A		5	< LOQ	< LOQ
CBN		5	< LOQ	< LOQ
CBN-A		5	< LOQ	< LOQ
CBG		5	< LOQ	< LOQ
CBC		5	< LOQ	< LOQ
CBC-A		5	< LOQ	< LOQ
Δ8-THC		5	< LOQ	< LOQ
CBDV		5	0.064	44.370
CBDV-A		5	< LOQ	< LOQ
THCV		5	< LOQ	< LOQ
Potency – Total CBD		NLT 95% of Label Claim for CBD	28.1 mg CBD/softgel 112% of Labelled Claim for CBD	
Total THC		0.0%	0.0%	
Identity – CBD		Retention Time ± 0.05min of Standard	0.00 min	
Melatonin Content	HPLC-DAD	80 – 120% of Labelled Claim for Melatonin	0.93 mg Melatonin/softgel 93% of Labelled Claim	
Terpenes[2]	GC/FID & LC/MS	Refer to Oil Specification	Refer to Oil Specification	
Pesticides[2]	LC/MS & GC/MS	Refer to Oil Specification	Refer to Oil Specification	
Residual Solvents[2]	USP <467>	Refer to Oil Specification	Refer to Oil Specification	
Elemental Impurities:[2]	USP <2232>	Refer to Oil Specification	Refer to Oil Specification	
Microbial Limits:[2]	USP<2032>	Refer to Oil Specification	Refer to Oil Specification	

Notes: [1]according to Folium Biosciences internal analytical methods, US Pharmacopeia or 3rd party contract laboratory method. [2] Testing performed on bulk oil. ND=Not Detected, LOQ=Limit of Quantification, LOD=Limit of Detection

This product is not intended to diagnose, treat, cure, or prevent any disease and has not been evaluated by the FDA.