JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Joy Organics CBD Softgels
PRODUCT STRENGTH:	25 mg
FILL LOT NUMBER:	2021201
SOFTGEL LOT NUMBER	GCND2520-03
BEST BY DATE:	1/30/2022

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 shrin bands intact	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Suffici cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	SOP-111	25-31.25 mg CBD LOQ**: 10 PPM† (0.001%)	24 m	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	ND	PASS
Compliant Pesticide Panel	SOP-111	WIP-100008 : Product specification for Softgels, Oregon Action limits apply	LOQ	PASS
Microbial - Total Plate Count	SOP-111	Complies with USP 61/62	BELOW LOD	PASS
Microbial - Yeast and Mold	SOP-111	Complies with USP 61/62	BELOW LOD	PASS
Microbial - Coliforms and bacteria (including ecoli and salmonella)	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	<LOQ	PASS

** Level of Quantitation, † Parts Per Million

Quality Certified by: Kei Horikawa 08.10.2020

Kei Horikawa — Date

Manager of Quality Assurance

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

ACCU Bio-Chem LABORATORIES

1755 Victory Blvd. Glendale, CA 91201
Tel: 818.547.3221 Email: acculab@accubclabs.com
www.accubclabs.com

To: **Joy Organics**
5042 Technology Parkway, Suite 500
Fort Collins, CO 80528

COA No.:	**M-JO080320-01**
COA Date:	**08/10/20**
Sample Rec'd Date:	**08/03/20**
ISO/IEC 17025:2017 Standard	**Page 1 of 1**

MICROBIOLOGICAL CERTIFICATE OF ANALYSIS

Sample Description: ***Softgel Capsule 25 mg***
Sample Batch/Lot No.: ***2021201***
ACCU Laboratory Ref.: ***0784747***
Purchase Order No.: ***N/A***
Test Method: ***USP***
Notes: ***N/A***

Analysis:	Results:
Total Plate Count:	**<10 CFU / g**
Yeast & Mold Count:	**<10 CFU / g**
Bile-Tolerant g- Bacteria (coliforms):	**Negative**
Escherichia coli:	**Negative**
Salmonella:	**Negative**

Approved By: _____
Vano Baghdasarian, Laboratory Director

Abbreviations: **g -: gram negative; g +B: gram positive Bacilli; g +C: gram positive Cocci; TPC: Total Plate Count; TNTC: Too Numerous to Count**

Softgel 25mg

Joy Organics **Certificate of Analysis**

total cannabinoids	Δ9-THC	THCa	total THC
25 mg	0 mg	0 mg	0 mg
per	CBD	CBDa	total CBD
capsule	24 mg	0 mg	24 mg

ISO/IEC 17025:2017
ACCREDITED
Certificate #4961.01

Stillwater Laboratories

Lot# GCND2520-03

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

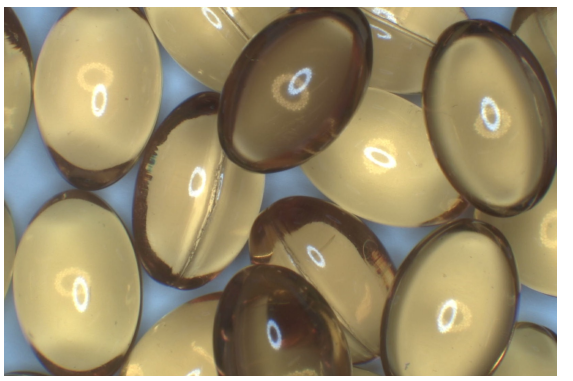
Sample Handling

test ID		sample wt	16.1 g
type	capsule	order	**7680**
lab ID	**0FW40**	sample date	6/29/2020
unit	capsule	unit weight	**0.7 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-7.5.1.9	Hardy Diag
solvents	MSP-7.5.1.6	QP2020/HS20
metals	MSP-7.5.1.1	ICPMS2030

capsule



Potency

	per capsule		estimated error
tetrahydrocannabolic acid (THCa)	.03%	0 mg	± 0.02 mg
Δ^9-tetrahydrocannabinol (Δ^9 THC)	0%	0 mg	± 0.01 mg
Δ^8-tetrahydrocannabinol (Δ^8 THC)	0%	0 mg	± 0.01 mg
tetrahydrocannabivarin (THCv)	0%	0 mg	± 0.01 mg
cannabidiolic acid (CBDa)	.04%	0 mg	± 0.02 mg
cannabidiol (CBD)	3.59%	24 mg	± 0.13 mg
cannabidivarin (CBDv)	.04%	0 mg	± 0.02 mg
cannabigerolic acid (CBGa)	0%	0 mg	± 0.01 mg
cannabigerol (CBG)	0%	0 mg	± 0.01 mg
cannabinol (CBN)	0%	0 mg	± 0.01 mg
cannabichromene (CBC)	0%	0 mg	± 0.01 mg

Terpenes

	%	estimated error	%	estimated error	%	estimated error

terpenes
not tested / not required

Solvents

	MT limit	0FW40	LOQ

solvents
not tested / not required

Toxic Metals

	MT limit	0FW40	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	0FW40	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	0FW40	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)

	0FW40	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:

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