



JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Joy Organics CBD Softgels with Melatonin
PRODUCT STRENGTH: 25 mg CBD / 3 mg CBN / 3 mg Melatonin
LOT NUMBER: 21119A
BEST BY DATE: 09/30/2022
SOFTGEL LOT NUMBER*: **21198**

Click on the links to view third-party reports

Physical Attributes

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%)	26.5 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

Kayla Kolber
 Kayla Kolber
 Quality Assurance Technician

05/04/2021

Date

Nano BS 25mg Sleep

Certificate of Analysis



total cannabinoids	Δ9-THC	THCa	total THC
31 mg	0.000 mg	0.000 mg	0.000 mg
per pill	CBD	CBDa	total CBD
	26.4 mg	0.15 mg	26.5 mg

Lot# 21198

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



Stillwater Laboratories

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

Sample Handling

test ID	10291.1.	sample wt	48.4 g
type	gelcap	order	10291
lab ID	1DA39	sample date	3/31/2021
unit	pill	unit weight	0.6 g

gelcap



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 pill	estimated error
tetrahydrocannabinolic acid (THCa)	0% 0.000 mg ± 0.01 mg
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	0% 0.000 mg ± 0.01 mg
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ THC)	0% 0.000 mg ± 0.01 mg
tetrahydrocannabivarin (THCv)	0% 0.000 mg ± 0.01 mg
cannabidiolic acid (CBDA)	.03% 0.15 mg ± 0.01 mg
cannabidiol (CBD)	4.59% 26.4 mg ± 0.15 mg
cannabidivarin (CBDv)	.05% 0.28 mg ± 0.02 mg
cannabigerolic acid (CBGA)	0% 0.000 mg ± 0.01 mg
cannabigerol (CBG)	.1% 0.55 mg ± 0.02 mg
cannabinol (CBN)	.59% 3.37 mg ± 0.06 mg
cannabichromene (CBC)	0% 0.000 mg ± 0.01 mg

Terpenes

%	estimated error	%	estimated error	%	estimated error
terpenes not tested / not required					

Solvents

MT limit	1DA41	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

Pesticides (MT)

MT limit	1DA39	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
diaminazide	0.00 ppm	<10ppb
etoxazole	0.00 ppm	<10ppb
fenoxycarb	0.00 ppm	<10ppb
imazail	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

Pesticides (other)

1DA39	LOQ
acephate	0.00 ppm <10ppb
acetamid	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
chlorantraniliprole	0.00 ppm <10ppb
chlorpyrifos	0.00 ppm <10ppb
clofentazine	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
flupyrifid	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

Toxic Metals

MT limit	1DA39	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	1DA39	LOQ
<i>E. coli</i>	10 CFU	0 CFU <10 CFU/g
<i>Salmonella</i> 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

Comments

* 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}. *** Decarboxyated 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_y² = 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_y. Sampling error is not

Certified by:

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

Analytical Report

Report Date: 04/06/2021

Work Order: CHSG210331-019

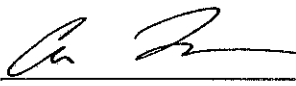
Received Date: 03/31/2021

P.O. #:

Comments:

Sample Num: **Lot Number:** 21198
Client Sample Num:
Comments:

<u>Analysis</u>	<u>Method Reference</u>	<u>Result</u>	<u>Unit</u>	<u>Analysis Date</u>	<u>Approval Date</u>
Melatonin	USP Assay Melatonin	3.17	mg/svg	04/06/2021	04/06/2021

Reviewed by: 
Cheri Turman, PhD., Vice President

certificate ID
1DZ69

SG25M

7USC1639 Certificate of Analysis

Lot# 21119A

rec'd 4/30/2021 12:27:35 PM

order 10620



per

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

Stillwater Laboratories



per

Microbial	MSP-7.5.1.10	limit	LOD	LOQ	error	result
E.coli	ND	0CFU	0.1	0.2	±0.2CFU	PASS
Salmonella sp. molds	ND	0CFU	0.1	0.2	±0.2CFU	PASS
	ND	10000CFU	2.6	7.8	±7.8CFU	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

Kyle Larson, MSC
Deputy Director



<https://customer.a2la.org/index.cfm?event=directory.detail&labPID=423635B2-5128-4C6F-871A-419DCF43B0D7>

Stillwater Laboratories Inc.
MT License L0001, L00007
6073 US93N Suite 5, Olney MT 59927
406-881-2019

INSTRUMENTS: Potency by HPLC (LC2030C-UV), solvents and terpenes by GCMS (QP2020/HS20), pesticides and mycotoxins by LCMSMS (LC8060), microbial by qPCR (AriaMx) and plating (Hardy Diagnostics), metals by ICPMS (ICPMS-2030)

• All testing was completed onsite at 6073 US93N, Olney MT • Potency (cannabinoid concentration) is calculated as: $[\text{cannabinoid}] = [\text{cannabinoid}]_{\text{HPLC}} \times \text{volume}_{\text{dilution}} / \text{M}_{\text{dry}}$ • Decarboxyated cannabinoid concentration is calculated $\text{XXX}_{\text{total}} = 0.877 \times \text{XXXa} + \text{XXX}$ • Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula $s_e^2 = \sum (\partial f / \partial i)^2 s_i^2$ where i is the contributor to error. The 95% confidence range is calculated from: $(\text{concentration}) \pm t_{\text{CL},90} \times S_e$. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed

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