



# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics CBD Softgels with Curcumin  
**PRODUCT STRENGTH:** 25 mg CBD / 10 mg Curcumin  
**FILL LOT NUMBER:** 21143  
**SOFTGEL BATCH:** 21096A  
**BEST BY DATE:** 09/03/2022

*\*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	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
<b>Potency - Total CBD</b>	SOP-111	25-31.25 mg CBD LOQ**: 10 PPM† (0.001%)	<b>28 mg</b>	PASS
<b>Potency - D9-THC</b>	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<b>ND</b>	PASS
<b>Compliant Pesticide Panel</b>	SOP-111	WIP-100008 : Product specification for softgel Oregon Action limits apply	<b>ND</b>	PASS
<b>Microbial - Stec E.Coli</b>	SOP-111	Complies with USP 61/62	<b>Below LOQ</b>	PASS
<b>Microbial - Salmonella</b>	SOP-111	Complies with USP 61/62	<b>Below LOQ</b>	PASS
<b>Microbial - Yeast and Mold</b>	SOP-111	Complies with USP 61/62	<b>Below LOQ</b>	PASS
<b>CA Compliant Heavy Metal Panel</b>	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	<b>ND</b>	PASS

\* \*\*Level of Quantitation, † Parts Per Million

Quality Certified Kei Horikawa 04/13/2021  
 Kei Horikawa Date  
 Quality Control Manager

certificate ID  
**1CD57**

# Nano BS Curcumin 25mg

# 7USC1639 Certificate of Analysis



Lot# 21143

rec'd 3/5/2021 11:34:16 AM

order 10005

total cannabinoids

**29.2mg per pill**

THC tot ND

CBD tot 28.0mg

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

Stillwater Laboratories



Potency per pill	MSP-7.5.1.4	LOD	LOQ	error (95%CI k=2)	Terpenes	MSP-7.5.1.6
<b>total cannabinoids</b>	<b>29.2mg</b>	<b>0.15</b>	<b>0.46</b>	<b>±0.69mg</b>		
<b>total THC±</b>	<b>ND</b>	<b>0.15</b>	<b>0.46</b>	<b>±0.46mg</b>		
<b>total THC (THC+THCa)</b>	<b>ND</b>	<b>0.15</b>	<b>0.46</b>	<b>±0.46mg</b>		
<b>total CBD±</b>	<b>28.0mg</b>	<b>0.15</b>	<b>0.46</b>	<b>±0.68mg</b>		
<b>total CBD (CBD+CBDA)</b>	<b>28.0mg</b>	<b>0.15</b>	<b>0.46</b>	<b>±0.68mg</b>		
tetrahydrocannabinolic acid (THCa)	ND	0.15	0.46	±0.46mg		
Δ9-tetrahydrocannabinol (Δ9 THC)	ND	0.14	0.43	±0.43mg		
Δ8-tetrahydrocannabinol (Δ8 THC)	ND	0.19	0.58	±0.58mg		
tetrahydrocannabinavarin (THCv)	ND	0.16	0.48	±0.48mg		
cannabidiolic acid (CBDA)	<LOQ	0.13	0.40	±0.40mg		
cannabidiol (CBD)	27.8mg	0.15	0.46	±0.68mg		
cannabidivarin (CBDv)	ND	0.15	0.46	±0.46mg		
cannabigerolic acid (CBGa)	ND	0.14	0.41	±0.41mg		
cannabigerol (CBG)	0.7mg	0.04	0.13	±0.14mg		
cannabinol (CBN)	ND	0.08	0.25	±0.25mg		
cannabichromene (CBC)	<LOQ	0.15	0.46	±0.46mg		

total terpenes	ND
limonol	ND
β-myrcene	ND
D-limonene	ND
α-pinene	ND
β-pinene	ND
ocimene	ND
terpinolene	ND
α-humulene	ND
β-caryophyllene	ND
α-bisabolol	ND
camphene	ND
Δ3-carene	ND
caryophyllene oxide	ND
para-cymene	ND
eucalyptol	ND
geraniol	ND
guaial	ND

Microbial	MSP-7.5.1.10	limit	LOD	LOQ	error	result	Pesticides	MSP-7.5.1.8	limit	LOD	LOQ	error	result	
E.coli	ND	0CFU	0.0	0.1	±0.1	1CFU	PASS	Abamectin	ND	0.30 ppm	0.007	0.022	±0.022 ppm	PASS
Salmonella sp.	ND	0CFU	0.0	0.1	±0.1	1CFU	PASS	Acephate	ND	5.00 ppm	0.008	0.023	±0.023 ppm	PASS
molds	ND	1000CFU	1.7	5.0	±5.0	CFU	PASS	Acequinocyl	ND	4.00 ppm	0.007	0.020	±0.020 ppm	PASS
Ochratoxin A	ND	20 ppb	0.4	1.3	±1.3	ppb	PASS	Acetamidiprid	ND	5.00 ppm	0.005	0.016	±0.016 ppm	PASS
Aflatoxin B1B2G1G2	ND	20 ppb	0.4	1.3	±1.3	ppb	PASS	Aldicarb	ND	0.00 ppm	0.002	0.006	±0.006 ppm	PASS

Solvents	MSP-7.5.1.7	limit	LOD	LOQ	error	result	
Acetone	ND	5000 ppm	0.6	1.8	±1.8	ppm	PASS
Acetonitrile	ND	410 ppm	0.5	1.6	±1.6	ppm	PASS
Benzene	ND	0 ppm	0.0	0.1	±0.1	ppm	PASS
Butane	ND	5000 ppm	1.3	3.8	±3.8	ppm	PASS
Chloroform	ND	0 ppm	0.1	0.2	±0.2	ppm	PASS
Cyclohexane	ND	0 ppm	0.5	1.4	±1.4	ppm	PASS
Ethanol	8 ppm	10000 ppm	0.6	1.9	±2.1	ppm	PASS
Heptane	ND	5000 ppm	0.4	1.1	±1.1	ppm	PASS
Hexane	ND	290 ppm	0.5	1.4	±1.4	ppm	PASS
Isopropyl alcohol	ND	5000 ppm	0.6	1.7	±1.7	ppm	PASS
Methanol	ND	3000 ppm	0.5	1.4	±1.4	ppm	PASS
Pentane	ND	5000 ppm	0.2	0.5	±0.5	ppm	PASS
Propane	ND	5000 ppm	0.5	1.4	±1.4	ppm	PASS
Toluene	ND	890 ppm	0.3	0.8	±0.8	ppm	PASS
Xylenes	ND	2170 ppm	0.3	1.0	±0.9	ppm	PASS

Metals	MSP-7.5.1.11	limit	LOD	LOQ	error	result	
Arsenic	ND	1500 ppb	2.5	7.5	±7.5	ppb	PASS
Cadmium	ND	500 ppb	2.7	8.0	±8.0	ppb	PASS
Lead	ND	500 ppb	4.2	12.5	±12.5	ppb	PASS
Mercury	ND	300 ppb	2.1	6.3	±6.3	ppb	PASS

Pesticides	MSP-7.5.1.8	limit	LOD	LOQ	error	result	
Pyrethrin	ND	1.00 ppm	0.003	0.008	±0.008	ppm	PASS
Pyridaben	ND	3.00 ppm	0.001	0.003	±0.003	ppm	PASS
Spinetoram	ND	3.00 ppm	0.004	0.011	±0.011	ppm	PASS
Spinosad	ND	3.00 ppm	0.007	0.020	±0.020	ppm	PASS
Spiromesifen	ND	12.00 ppm	0.003	0.009	±0.009	ppm	PASS
Spirotetramat	ND	13.00 ppm	0.002	0.007	±0.007	ppm	PASS
Spiroxamine	ND	0.00 ppm	0.001	0.003	±0.003	ppm	PASS
Tebuconazole	ND	2.00 ppm	0.005	0.016	±0.016	ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001	0.003	±0.003	ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.003	0.009	±0.009	ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.002	0.007	±0.007	ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

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)

Certified by:

QA Manager



Kyle Larson, MSC  
Deputy Director

Jacob Harris

Certificate #4961.01  
<https://portal.a2la.org/scopepdf/4961-01.pdf>

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

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All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub>/m<sub>dry</sub>. ... Decarboxylated cannabinoid concentration is calculated XXX<sub>total</sub> = 0.877 x XXX<sub>A</sub> + 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<sub>e,i</sub><sup>2</sup> = Σ [(βi/θi)<sup>2</sup>s<sub>e,i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t<sub>0.95</sub> x s<sub>e</sub>. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed

## Analytical Report

Report Date: 03/10/2021

**Work Order:** CHSG210304-032  
**Received Date:** 03/04/2021  
**P.O. #:**

**Comments:**

**Sample Num:** 21CH02105

**Lot Number:** 21143

**Client Sample Num:** BS 25mg Curcumin

**Comments:**

<u>Analysis</u>	<u>Method Reference</u>	<u>Result</u>	<u>Unit</u>	<u>Analysis Date</u>	<u>Approval Date</u>
Curcuminoid- Bis-demethoxycurcumin	AOAC 2016.16	0.127	mg/svg	03/10/2021	03/10/2021
Curcuminoid- Curcumin	AOAC 2016.16	10.08	mg/svg	03/10/2021	03/10/2021
Curcuminoid- Demethoxycurcumin	AOAC 2016.16	1.15	mg/svg	03/10/2021	03/10/2021
Curcuminoid- Total Curcuminoids	AOAC 2016.16	11.36	mg/svg	03/10/2021	03/10/2021

Reviewed by:



Cheri Turman, PhD., Vice President

certificate ID  
**1DG23**

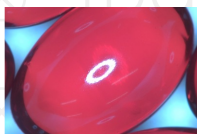
**SG25C**

# R Certificate of Analysis

Lot# 21096A

rec'd 4/8/2021 12:51:59 PM

order 10374



Stillwater  
Laboratories



Microbial	MSP-7.5.1.10	limit	LOD	LOQ	error	result
E.coli	ND	NL	0.1	0.2	±0.2CFU	NA
Salmonella sp.	ND	NL	0.1	0.2	±0.2CFU	NA
molds	ND	NL	2.9	8.8	±8.8CFU	NA

Metals	MSP-7.5.1.11	limit	LOD	LOQ	error	result

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

Kyle Larson, MSC  
Deputy Director

Jacob Harris  
QA Manager



ISO/IEC 17025:2017



Certificate #4961.01

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

**Stillwater Laboratories Inc.**  
MT License L0001, L00007  
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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: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub>/M<sub>dry</sub> ••• Decarboxyated cannabinoid concentration is calculated XXX<sub>total</sub> = 0.877 x XXX<sub>A</sub> + 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<sub>i</sub><sup>2</sup> = Σ (d<sub>i</sub>/d<sub>i</sub>)<sup>2</sup> s<sub>e</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t<sub>CL90</sub> x s<sub>p</sub>. 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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