CERTIFICATE OF ANALYSIS

PRODUCT NAME: CBD Softgels with Curcumin
PRODUCT STRENGTH: 25 mg CBD / 10 mg Curcumin
FILL LOT NUMBER: 20268A
BEST BY DATE: 03/03/2022
SOFTGEL LOT NUMBER: GC32520-04

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	SOP-100	Bright Red to Pink	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 ba intact	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Sufficie 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%)	25.7 mg	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 Tinctures, Oregon Action limits apply	ND	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	>LOD	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	>LOD	PASS
Microbial - Yeast/Mold	SOP-111	Complies with USP 61/62	>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 by: Kei Horikawa 10/05/2020

Kei Horikawa
Quality Control Manager

Date

SG25C - Curcumin

Certificate of Analysis

total cannabinoids
26 mg
per
capsule

Δ9-THC	THCa	total THC
0.000 mg	0.000 mg	0.000 mg

CBD	CBDa	total CBD
25.7 mg	0.000 mg	25.7 mg

Lot GC/C32520-04

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

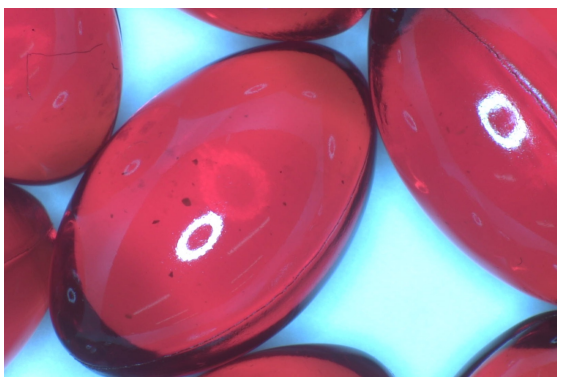
Sample Handling

test ID		sample wt	17.7 g
type	capsule	order	**8420**
lab ID	**0JQ58**	sample date	9/22/2020
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 RTPCR
solvents	MSP-7.5.1.6	QP2020/HS20
metals	MSP-7.5.1.1	ICPMS2030

capsule



Potency

per capsule			estimated error
tetrahydrocannabolic 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)	0%	0.000 mg	± 0.01 mg
cannabidiol (CBD)	4.45%	25.7 mg	± 0.13 mg
cannabidivarin (CBDv)	0%	0.000 mg	± 0.01 mg
cannabigerolic acid (CBGa)	0%	0.000 mg	± 0.01 mg
cannabigerol (CBG)	0%	0.000 mg	± 0.01 mg
cannabinol (CBN)	0%	0.000 mg	± 0.01 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	0JQ58	LOQ

Toxic Metals

	MT limit	0JQ58	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	0JQ58	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	0JQ58	LOQ

microbial not tested

Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb	<20 ppb
Ochratoxin A	20 ppb	0 ppb	<20 ppb

Pesticides (other)

	0JQ58	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

CONFIDENTIAL EXTRACTOR

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CBD Soft Gels Curcumin, 25mg CBD/10mg Curcumin
PRODUCT CODE: GCC3-X-Y-A
LOT NUMBER: GC/C32520-04
DATE OF MANUFACTURE: 03SEP2020 (DDMMMYYYY) **EXPIRATION DATE:** 03MAR2022 *(Expiration date is 18 months under sealed conditions.)*

INGREDIENTS:

Composition of Fill: Polysorbate 80, Polysorbate 20, Fractionated Coconut Oil, Broad Spectrum CBD Hemp Oil, β-Caryophyllene, Curcuminoids

Composition of the Shell: Bovine-derived Gelatin, Glycerin, Water

Parameter	Method[1]	Specification	Results	
Appearance	QCU002	Oval soft gelatin capsule	Pass	
Color		Dark Red	Pass	
Cannabinoids		LOQ (mg/g)	Wt. (%)	(mg/g)
CBD		0.018	N/A	66.08
CBD-A		0.0027	N/A	ND
Δ9-THC		0.0115	N/A	ND
THC-A		0.006	N/A	ND
CBN		0.0041	N/A	ND
CBG		0.0143	N/A	ND
CBC	HPLC-SOP 101 (CannaSafe)	0.0027	N/A	ND
Δ8-THC		0.0115	N/A	ND
CBDV		0.0126	N/A	1.56
THCV		0.0111	N/A	ND
Potency – Total CBD		NLT 95% of Labelled Claim for CBD	28.1 mg CBD/softgel 113% of Labelled Claim	
Total THC		0.0%	0.0%	
Identity – CBD		Retention Time ± 0.05min of Standard	0.00 min	
Curcumin Content	HPLC-DAD	80 – 120% of Labelled Claim for Curcumin	9.4 mg Curcumin/softgel 94% 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 Volium 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, N/A=Not Applicable

PLEASE NOTE: *Curcumin is naturally bright yellow in color and tends to stain anything it comes into contact with. Any discoloration of the packaging, container or skin that the curcumin product touches is natural and expected. The yellow coloration is not a reflection of the product quality or indicative of any defect.*

The above certificate of analysis is based on Product Specification (QA-FRM3-0005 GCC3-X-Y-A) Revision No. 01

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

ACCU Bio-Chem LABORATORIES

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To:

COA No.:	**M-JO092820-01**
COA Date:	**10/05/20**
Sample Rec'd Date:	**09/28/20**
ISO/IEC 17025:2017 Standard	**Page 1 of 1**

MICROBIOLOGICAL CERTIFICATE OF ANALYSIS

Sample Description: ***Softgel Capsule 25mg***
Sample Batch/Lot No.: ***20268A***
ACCU Laboratory Ref.: ***0807276***
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**