

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Tincture - Orange  
**PRODUCT STRENGTH:** 900 mg  
**LOT NUMBER:** 20LL121K11  
**BEST BY DATE:** 11/7/21  
**HEMP EXTRACT LOT** 112619

**\*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	Characteristic - coconut and hemp, orange	PASS
Appearance	SOP-100	Golden to Amber oil in brown glass bottle with dropper	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	855-1125 mg CBD LOQ**: 10 PPM† (0.001%)	<a href="#">956mg</a>	PASS
<b>Potency - D9-THC</b>	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<a href="#">ND</a>	PASS
<b>Compliant Pesticide Panel</b>	SOP-111	Action Limits base on Oregon standard for Pesticides in Cannabis	<a href="#">ND</a>	PASS
<b>Microbial - Stec E.Coli</b>	SOP-111	Complies with USP 61/62	<a href="#">Below LOD</a>	PASS
<b>Microbial - Salmonella</b>	SOP-111	Complies with USP 61/62	<a href="#">Below LOD</a>	PASS
<b>Microbial - Yeast and Mold</b>	SOP-111	Complies with USP 61/62	<a href="#">Below LOD</a>	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	<a href="#">ND</a>	PASS

\* Level of Quantitation, † Parts Per Million

Quality Certified by:

*Darcie Moran*

05/19/2020

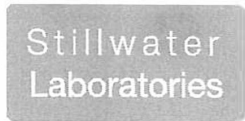
Darcie Moran

Date

Manager of Quality Assurance



total cannabinoids	Δ9-THC	THCa	total THC
<b>996 mg</b>	0 mg	0 mg	0 mg
per ounce	CBD	CBDa	total CBD
	956 mg	0 mg	956 mg



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

Sample Handling

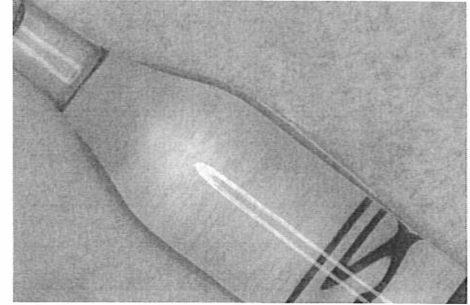
test ID 1,2	sample wt
type tincture	order <b>7309</b>
lab ID <b>0EP09</b>	sample date 5/18/2020
unit ounce	unit weight <b>27.6 g</b>

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

Terpene	HERBAL	FLORAL
caryophyllene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
humulene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
terpinolene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ocimene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
beta pinene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
alpha pinene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
limonene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
myrcene	<input checked="" type="checkbox"/>	<input type="checkbox"/>
linalool	<input checked="" type="checkbox"/>	<input type="checkbox"/>

tincture



Potency

per ounce	estimated error
tetrahydrocannabinolic acid (THCa) 0%	0 mg ± 0.45 mg
Δ <sup>9</sup> -tetrahydrocannabinol (Δ <sup>9</sup> THC) 0%	0 mg ± 0.45 mg
Δ <sup>8</sup> -tetrahydrocannabinol (Δ <sup>8</sup> THC) 0%	0 mg ± 0.45 mg
tetrahydrocannabivarin (THCv) 0%	0 mg ± 0.45 mg
cannabidiolic acid (CBDa) 0%	0 mg ± 0.45 mg
cannabidiol (CBD) 3.46%	956 mg ± 1.11 mg
cannabivarin (CBDv) 0%	0 mg ± 0.45 mg
cannabigerolic acid (CBGa) 0%	0 mg ± 0.45 mg
cannabigerol (CBG) .14%	40 mg ± 0.50 mg
cannabinol (CBN) 0%	0 mg ± 0.45 mg
cannabichromene (CBC) 0%	0 mg ± 0.45 mg

Terpenes

%	estimated error	%	estimated error	%	estimated error
β-myrcene 0.000%	± 0.0016%	camphene 0.000%	± 0.0016%	guaiol 0.000%	± 0.0016%
β-caryophyllene 0.000%	± 0.0016%	Δ <sup>3</sup> -carene 0.000%	± 0.0016%	β-bisabolol 0.000%	± 0.0016%
alpha-pinene 0.000%	± 0.0016%	a-terpinene 0.000%	± 0.0016%	eucalyptol 0.000%	± 0.0016%
β-pinene 0.000%	± 0.0016%	para-cymene 0.000%	± 0.0016%		
D-limonene 0.342%	± 0.0062%	g-terpinene 0.000%	± 0.0016%		
linalool 0.008%	± 0.0019%	(-)-isopulegol 0.000%	± 0.0016%		
ocimene 0.001%	± 0.0034%	geraniol 0.002%	± 0.0017%		
terpinolene 0.000%	± 0.0016%	cis-nerolidol 0.000%	± 0.0017%		
alpha-humulene 0.000%	± 0.0016%	trans-nerolidol 0.000%	± 0.0016%		
				total terpenes	0.35%

Solvents

MT limit	0EP09	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

Pesticides (MT)

MT limit	0EP09	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	
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	

Pesticides (other)

0EP09	LOQ
acephate 0.00 ppm	<10ppb
acetaminid 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
flupyrifos 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
piperyonyl 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	0EP09	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

Microbial	MT limit	0EP09	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

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> X volume<sub>dilution</sub>/M<sub>dry</sub>. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)<sub>GCMS</sub> / M<sub>dry</sub>. Decarboxylated cannabinoid concentration is calculated from the equation 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; this is combined with error from weighing and dilution using the propagation of error formula s<sub>e</sub><sup>2</sup> = Σ (∂f/∂i)<sup>2</sup>s<sub>i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t<sub>C,90</sub> x s<sub>e</sub>. Sampling error is not

Certified by:

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