

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CBD Tincture - Natural
PRODUCT STRENGTH: 1350 mg
LOT NUMBER: 20LL124K11
BEST BY DATE: 11/6/21
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 - Olive and hemp	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
Potency - Total CBD	SOP-111	1282.5-1687.5 mg CBD LOQ**: 10 PPM† (0.001%)	1378mg	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	Below LOD	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	Below LOD	PASS
Microbial - Yeast and 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

Darcie Moran

05/20/2020

Darcie Moran
Manager of Quality Assurance

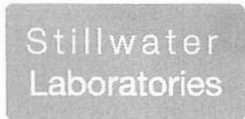
Date:

Natural 1350mg 20LL124K11

Certificate of Analysis



total cannabinoids	Δ9-THC	THCa	total THC
1436 mg	0 mg	0 mg	0 mg
per ounce	CBD	CBDa	total CBD
	1378 mg	0 mg	1378 mg



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

Sample Handling

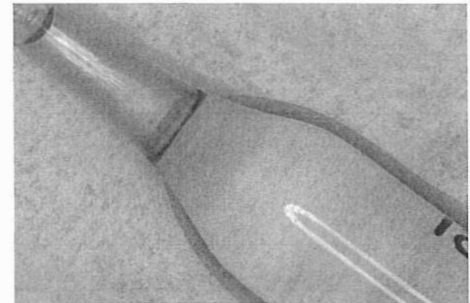
test ID	3,4	sample wt	
type	tincture	order	7309
lab ID	0EP11	sample date	5/18/2020
unit	ounce	unit weight	27.6 g

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-7.5.1.9	Hardy Diag
solvents	MSP-7.5.1.6	QP2020/HS20
metals	MSP-7.5.1.1	ICPMS2030

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

tincture



Potency

	per ounce	estimated error
tetrahydrocannabinolic acid (THCa)	0%	0 mg ± 0.45 mg
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	0%	0 mg ± 0.45 mg
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ 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)	4.99%	1378 mg ± 1.30 mg
cannabidivarin (CBDv)	0%	0 mg ± 0.45 mg
cannabigerolic acid (CBGa)	0%	0 mg ± 0.45 mg
cannabigerol (CBG)	.21%	58 mg ± 0.52 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 ³ -carene	0.000%	± 0.0016%	β-bisabolol	0.001%	± 0.0017%
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	0.004%	± 0.0018%	g-terpinene	0.000%	± 0.0016%			
linalool	0.001%	± 0.0017%	(-)-isopulegol	0.000%	± 0.0017%			
ocimene	0.000%	± 0.0033%	geraniol	0.002%	± 0.0017%			
terpinolene	0.000%	± 0.0016%	cis-nerolidol	0.000%	± 0.0016%			
alpha-humulene	0.000%	± 0.0016%	trans-nerolidol	0.000%	± 0.0016%			
								total terpenes
								0.01%

Solvents

Solvents	MT limit	0EP11	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	?	0 ppm	<0.2ppm
dichloromethane	600	0 ppm	<10ppm

Pesticides (MT)

Pesticides (MT)	MT limit	0EP11	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

Pesticides (other)

Pesticides (other)	0EP11	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
chlorantraniliprole	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

Toxic Metals

Toxic Metals	MT limit	0EP11	LOQ
arsenic	2 ppm	0.0 ppm	<10ppb
cadmium	4.1 ppm	0.0 ppm	<10ppb
lead	1.2 ppm	0.2 ppm	<10ppb
mercury	0.4 ppm	0.0 ppm	<10ppb

Microbial

Microbial	MT limit	0EP11	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

Comments

• All testing was completed onsite at 6073 US93N, Olney MT •• Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]_{HP-PLC} × volume_{dilution} / m_{dry}. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)_{GCMS} / m_{dry}. ••• Decarboxyted cannabinoid concentration is calculated from the equation XXX_{total} = 0.877 × 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 = ∑(∂f/∂i)²s_i² where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t_{CL90} × s_y. Sampling error is not

Certified by:

Justin M Johnston
Deputy Director
6073 US93N, Olney MT 59927
406-881-2019 rdb@stslabs.com