

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CBD Tincture - Lemon
PRODUCT STRENGTH: 1350 mg
LOT NUMBER: 20LL127K11
BEST BY DATE: 11/21/21
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, lemon	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%)	1432mg	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 Tincture, 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 by: *Darcie Moran* 05.30.2020
 Darcie Moran Date
 Manager of Quality Assurance

Certificate of Analysis

Product Name: Lemon 1350 mg	Product No.: -6-012-2-30
	Country of Origin: USA
Lot No.: 20LL127K11	Serving Size: 1 mL
	Manufacture Date:
Product Packaging: 30mL bottle/dropper	Report Date: 05/21/2020

Analyte	Test Method	Acceptable Limit	Test Results
Physical			
Appearance	Visual	Oily liquid	Conforms
Color	Visual	Golden to amber	Conforms
Odor	Organoleptic	Olive and hemp oil, lemon	Conforms
Potency			
CBD- Cannabidiol	MSP-7.5.1.5	1215 – 1688 mg/bottle	1432 mg/bottle
Total THC (delta 9 THC and THC-A)	MSP-7.5.1.5	0.1% w/w	0 mg
Impurities			
Pesticides	MSP-7.5.1.8	Below action limits	Conforms
Pathogens			
Escherichia Coli	MSP-7.5.1.9	Negative/10 g	Negative
Salmonella	MSP-7.5.1.9	Negative/10 g	Negative
Molds	MSP-7.5.1.9	NMT 100 cfu/g	0 cfu/g
Aflatoxin	MSP-7.5.1.9	NMT 20 ppb	0 ppb
Ochratoxin A	MSP-7.5.1.9	NMT 20 ppb	0 ppb
Heavy Metals			
Arsenic	MSP-7.5.1.1	NMT 1.5 ppm	0 ppm
Cadmium	MSP-7.5.1.1	NMT 0.3 ppm	0 ppm
Lead	MSP-7.5.1.1	NMT 1.0 ppm	0 ppm
Mercury	MSP-7.5.1.1	NMT 0.5 ppm	0 ppm

Quality Control: 

Date: 5/21/2020

Quality Assurance: 

Date: 5/21/20

Lemon 1350mg 20LL127K11

Certificate of Analysis



total cannabinoids	Δ9-THC	THCa	total THC
1492 mg	0 mg	0 mg	0 mg
per ounce	CBD	CBDa	total CBD
	1432 mg	0 mg	1432 mg



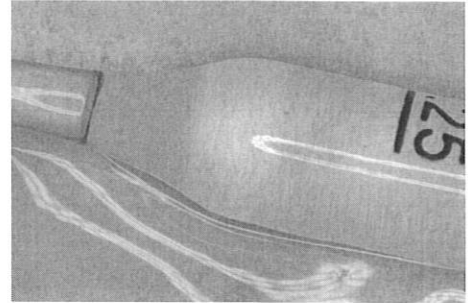
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Sample Handling

test ID	sample wt
type	order 7320
lab ID 0EP18	sample date
unit ounce	unit weight 28.5 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	
caryophyllene	
humulene	
terpinolene	
ocimene	
beta pinene	
alpha pinene	
limonene	
myrcene	
linalool	
FLORAL	



Potency	per ounce	estimated error	Terpenes	%	estimated error	%	estimated error	%	estimated error		
tetrahydrocannabinolic acid (THCa)	0%	0 mg ± 0.47 mg	β-myrcene	0.005%	± 0.0018%	camphene	0.000%	± 0.0016%	guaiol	0.000%	± 0.0016%
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	0%	0 mg ± 0.47 mg	β-caryophyllene	0.000%	± 0.0016%	Δ ³ -carene	0.000%	± 0.0016%	β-bisabolol	0.000%	± 0.0016%
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ THC)	0%	0 mg ± 0.47 mg	alpha-pinene	0.012%	± 0.0020%	a-terpinene	0.000%	± 0.0016%	eucalyptol	0.000%	± 0.0016%
tetrahydrocannabivarin (THCv)	0%	0 mg ± 0.47 mg	β-pinene	0.072%	± 0.0032%	para-cymene	0.000%	± 0.0016%			
cannabidiolic acid (CBDa)	0%	0 mg ± 0.47 mg	D-limonene	0.379%	± 0.0065%	g-terpinene	0.040%	± 0.0026%			
cannabidiol (CBD)	5.02%	1432 mg ± 1.35 mg	linalool	0.002%	± 0.0017%	(-)-isopulegol	0.000%	± 0.0016%			
cannabidivarin (CBDv)	0%	0 mg ± 0.47 mg	ocimene	0.005%	± 0.0036%	geraniol	0.002%	± 0.0017%			
cannabigerolic acid (CBGa)	0%	0 mg ± 0.47 mg	terpinolene	0.000%	± 0.0016%	cis-nerolidol	0.000%	± 0.0016%			
cannabigerol (CBG)	.21%	60 mg ± 0.54 mg	alpha-humulene	0.000%	± 0.0016%	trans-nerolidol	0.000%	± 0.0016%			
cannabinol (CBN)	0%	0 mg ± 0.47 mg									
cannabichromene (CBC)	0%	0 mg ± 0.47 mg									
											total terpenes 0.52%

Solvents	MT limit	0EP18	LOQ	Pesticides (MT)	MT limit	0EP18	LOQ	Pesticides (other)	0EP18	LOQ
propane	5,000	0 ppm	<10ppm	abamectin		0.00 ppm	<10ppb	acephate	0.00 ppm	<10ppb
butanes	5,000	0 ppm	<10ppm	acequinocyl		0.00 ppm	<10ppb	acetamiprid	0.00 ppm	<10ppb
pentanes	5,000	0 ppm	<10ppm	bifenazate		0.00 ppm	<10ppb	aldicarb	0.00 ppm	<10ppb
hexanes	290	0 ppm	<10ppm	bifenthrin		0.00 ppm	<10ppb	azoxystrobin	0.00 ppm	<10ppb
cyclohexane	3,880	0 ppm	<10ppm	chlormequat cl.		0.00 ppm	<10ppb	boscalid	0.00 ppm	<10ppb
heptanes	5,000	0 ppm	<10ppm	cyfluthrin		0.00 ppm	<80ppb	carbaryl	0.00 ppm	<10ppb
methanol	3,000	0 ppm	<10ppm	diaminozide		0.00 ppm	<10ppb	carbofuran	0.00 ppm	<10ppb
isopropanol	5,000	0 ppm	<10ppm	etoxazole		0.00 ppm	<10ppb	chloanthraniliprole	0.00 ppm	<10ppb
acetone	5,000	0 ppm	<10ppm	fenoxycarb		0.00 ppm	<10ppb	chlorpyrifos	0.00 ppm	<10ppb
ethyl acetate	5,000	0 ppm	<10ppm	imazalil		0.00 ppm	<10ppb	clofentezine	0.00 ppm	<10ppb
benzene	2	0 ppm	<0.2ppm	imidacloprid		0.00 ppm	<10ppb	cypermethrin	0.00 ppm	<10ppb
toluene	890	0 ppm	<10ppm	myclobutanil		0.00 ppm	<10ppb	diazinon	0.00 ppm	<10ppb
xylenes	2,170	0 ppm	<10ppm	paclobutrazol		0.00 ppm	<10ppb	dichlorvos	0.00 ppm	<10ppb
chloroform	2	0 ppm	<0.2ppm	pyrethrins		0.00 ppm	<10ppb	dimethoate	0.00 ppm	<10ppb
dichloromethane	600	0 ppm	<10ppm	spinosad		0.00 ppm	<10ppb	etofenprox	0.00 ppm	<10ppb
				spiromesifen		0.00 ppm	<10ppb	fenpyroximate	0.00 ppm	<10ppb
				spirotetramat		0.00 ppm	<10ppb	fipronil	0.00 ppm	<10ppb
				trifloxystrobin		0.00 ppm	<10ppb	flonicamid	0.00 ppm	<10ppb

Toxic Metals	MT limit	0EP18	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	0EP18	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]_{HP-PLC} X 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 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_e² = 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_e. Sampling error is not

Certified by:

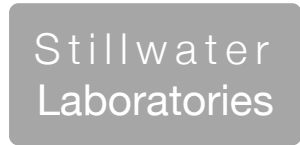
Justin M Johnston
Deputy Director
6073 US93N, Olney MT 59927
406-861-2019 rdo@stwlabs.com

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



total cannabinoids 84.7% CBD decarb total 80.7% Δ9-THC ND

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

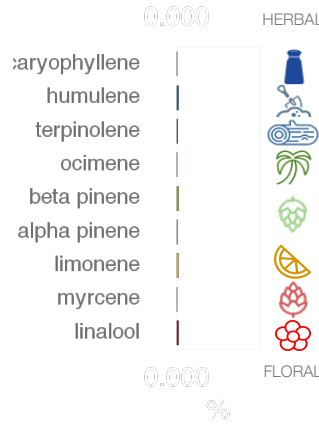


https://portal.a2la.org/scopepdf/4961-01.pdf

Sample Handling

test ID 6654 sample date 2/24/20 4:49 PM order 6654 labID OBR66 weight source

Table with 3 columns: Method, method, equipment. Lists various testing methods like weights, potency, terpenes, pesticides, etc.



concentrate



Potency and Terpenes table. Columns include compound name, percentage, and estimated error. Lists compounds like tetrahydrocannabinolic acid, beta-myrcene, and camphene.

Solvents, Pesticides (MT), and Pesticides (other) table. Columns include compound name, MT limit, OBR66, and LOQ. Lists various pesticides like abamectin, acequinocyl, and bifenthrin.

Toxic Metals table. Columns include metal name, MT limit, OBR66, and LOQ. Lists arsenic, cadmium, lead, and mercury.

Comments

Microbial table. Columns include microorganism name, MT limit, OBR66, and LOQ. Lists E. coli, Salmonella sp., molds, and Aflatoxin B1, B2, G1, G2.

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.

Certified by: Kyle Larson, MSc (Biology) Deputy Director 6073 US93N, Olney MT 59927 406-881-2019 rdb@stwlabs.com Printed 3/4/2020 1:42 PM