

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Mint Tinture
PRODUCT STRENGTH: 225 mg
LOT NUMBER: 20LL091A11
BEST BY DATE: 9/25/2021
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 oil, minty	PASS
Appearance	SOP-100	Golden to amber oil in brown glass bottle and dropper cap	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	213.75-281.25 mg CBD LOQ*: 10 PPM† (0.001%)	<u>232mg</u>	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<u>ND</u>	PASS
FL Compliant Pesticide Panel	SOP-111	Florida State Hemp Program Rule 5B-57.014: Action Limits for Pesticides	<u>ND</u>	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	<u><LOQ</u>	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	<u><LOQ</u>	PASS
Microbial - Aspergillus	SOP-111	Complies with USP 61/62	<u><LOQ</u>	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	<u><LOQ</u>	PASS

* Level of Quantitation, † Parts Per Million

Quality Certified by:

Darcie Moran

Darcie Moran
Director of Quality Assurance

Date

Tranquil Mint 225mg 20LL091A11

Certificate of Analysis



total cannabinoids	Δ9-THC	THCa	total THC
238 mg	0 mg	0 mg	0 mg
per	CBD	CBDa	total CBD
30mL	232 mg	1 mg	233 mg

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

Sample Handling

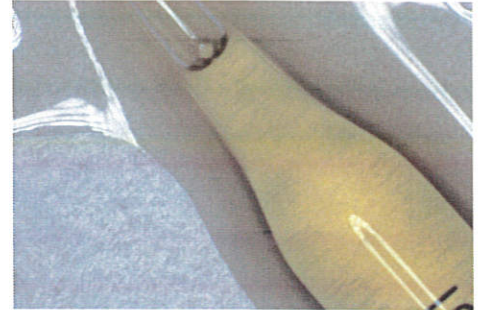
test ID	sample wt	28.4 g
type	order	6991
lab ID	sample date	4/6/2020
unit	unit weight	28.5 g

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

caryophyllene	HERBAL
humulene	
terpinolene	
ocimene	
beta pinene	
alpha pinene	
limonene	
myrcene	
linalool	
	FLORAL

tincture



Potency

ppr	30mL	estimated error
tetrahydrocannabinolic acid (THCa)	0%	0 mg ± 0.47 mg
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	0%	0 mg ± 0.47 mg
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ THC)	0%	0 mg ± 0.47 mg
tetrahydrocannabivarin (THCv)	0%	0 mg ± 0.47 mg
cannabidiolic acid (CBDa)	0%	1 mg ± 0.47 mg
cannabidiol (CBD)	.81%	232 mg ± 0.69 mg
cannabidivarin (CBDv)	0%	0 mg ± 0.47 mg
cannabigerolic acid (CBGa)	0%	0 mg ± 0.47 mg
cannabigerol (CBG)	.02%	5 mg ± 0.48 mg
cannabinol (CBN)	0%	0 mg ± 0.47 mg
cannabichromene (CBC)	0%	0 mg ± 0.47 mg

Terpenes

%	estimated error	%	estimated error	%	estimated error
β-myrcene	0.176% ± 0.0046%	camphene	0.012% ± 0.0020%	guaiol	0.000% ± 0.0016%
β-caryophyllene	0.232% ± 0.0052%	Δ ³ -carene	0.007% ± 0.0018%	β-bisabolol	0.004% ± 0.0018%
alpha-pinene	0.241% ± 0.0053%	a-terpinene	0.000% ± 0.0016%	eucalyptol	0.000% ± 0.0016%
β-pinene	0.194% ± 0.0048%	para-cymene	0.000% ± 0.0016%		
D-limonene	0.216% ± 0.0051%	g-terpinene	0.000% ± 0.0016%		
linalool	0.145% ± 0.0042%	(-)-isopulegol	0.000% ± 0.0016%	total terpenes	1.39%
ocimene	0.027% ± 0.0047%	geraniol	0.002% ± 0.0017%		
terpinolene	0.051% ± 0.0028%	cis-nerolidol	0.000% ± 0.0016%		
alpha-humulene	0.059% ± 0.0030%	trans-nerolidol	0.007% ± 0.0019%		

Solvents

MT limit	0DG48-R1	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
xylene	2,170	0 ppm <10ppm
chloroform	2	0 ppm <0.2ppm
dichloromethane	600	0 ppm <10ppm

Pesticides (MT)

MT limit	0DG48-R1	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)

0DG48-R1	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
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
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

MT limit	0DG48-R1	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	0DG48-R1	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

Lot 20LL091A11: Retest as extract

* 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}. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)_{GCMS} / m_{dry}. *** Decarboxylated 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:

Kyle Larson, MSc (Biology)
Deputy Director
6073 US93N, Olney MT 59927
406-881-2019 rdb@stwlabs.com

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

Sample Handling

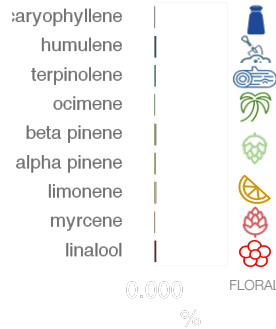
test ID sample date 2/24/20 4:49 PM
order 6654 labID OBR66 weight
source

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-7.5.1.10	ICPMS2030

0.000 HERBAL



concentrate



Potency

% estimated error

tetrahydrocannabinolic acid (THCa)	ND	± 0.02 %
Δ ⁹ -tetrahydrocannabinol (Δ ⁹ THC)	ND	± 0.02 %
Δ ⁸ -tetrahydrocannabinol (Δ ⁸ THC)	ND	± 0.02 %
tetrahydrocannabivarin (THCv)	ND	± 0.02 %
cannabidiolic acid (CBDa)	ND	± 0.02 %
cannabidiol (CBD)	80.7%	± 0.73 %
cannabidivarin (CBDv)	ND	± 0.02 %
cannabigerolic acid (CBGa)	ND	± 0.02 %
cannabigerol (CBG)	4.02%	± 0.16 %
cannabinol (CBN)	ND	± 0.02 %
cannabichromene (CBC)	ND	± 0.02 %

Terpenes

% estimated error

β-myrcene	0.001%	± 0.0017 %	camphene	0.002%	± 0.0017 %	guaiol	0.000%	± 0.0017 %
β-caryophyllene	0.001%	± 0.0017 %	Δ ³ -carene	0.003%	± 0.0018 %	β-bisabolol	0.002%	± 0.0017 %
α-pinene	0.005%	± 0.0018 %	a-terpinene	0.000%	± 0.0016 %	eucalyptol	0.005%	± 0.0018 %
β-pinene	0.008%	± 0.0019 %	para-cymene	0.009%	± 0.0019 %			
D-limonene	0.009%	± 0.0019 %	g-terpinene	0.010%	± 0.0019 %			
linalool	0.008%	± 0.0019 %	(-)-isopulegol	0.000%	± 0.0016 %			
ocimene	0.002%	± 0.0034 %	geraniol	0.002%	± 0.0017 %			
terpinolene	0.003%	± 0.0018 %	cis-nerolidol	0.000%	± 0.0016 %			
α-humulene	0.007%	± 0.0019 %	trans-nerolidol	0.004%	± 0.0018 %			

total
terpenes

0.08%

Solvents

MT limit OBR66 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
xylene	2,170	0 ppm	<10ppm
chloroform	2	0 ppm	<0.2ppm
dichloromethane	600	0 ppm	<10ppm

Pesticides (MT)

MT limit OBR66 LOQ

abamectin	2.50 ppm	0.00 ppm	<10ppb
acequinocyl	10.00 ppm	0.00 ppm	<10ppb
bifenazate	1.00 ppm	0.00 ppm	<10ppb
bifenthrin	1.00 ppm	0.00 ppm	<10ppb
chlormequat cl.	5.00 ppm	0.00 ppm	<10ppb
cyfluthrin	5.00 ppm	0.00 ppm	<80ppb
diaminozide	5.00 ppm	0.00 ppm	<10ppb
etoxazole	1.00 ppm	0.00 ppm	<10ppb
fenoxycarb	1.00 ppm	0.00 ppm	<10ppb
imazalil	1.00 ppm	0.00 ppm	<10ppb
imidacloprid	2.00 ppm	0.00 ppm	<10ppb
myclobutanil	0.60 ppm	0.00 ppm	<10ppb
paclobutrazol	2.00 ppm	0.00 ppm	<10ppb
pyrethrins	5.00 ppm	0.00 ppm	<10ppb
spinosad	1.00 ppm	0.00 ppm	<10ppb
spiromesifen	1.00 ppm	0.00 ppm	<10ppb
spirotetramat	1.00 ppm	0.00 ppm	<10ppb
trifloxystrobin	1.00 ppm	0.00 ppm	<10ppb

Pesticides (other)

OBR66 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
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
permethrin	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

MT limit OBR66 LOQ

arsenic	2 ppm	0.0 ppm	<10ppb
cadmium	0.8 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 OBR66 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]_{HPLC} x volume_{dilution}/m_{dry}. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)_{GCMS} / m_{dry}. • Decarboxylated 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_g² = Σ (df/di)² s_i² where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t_{CL90} x s_g. Sampling error is not

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