FOOD & ENVIRONMENT SAFETY ANALYTICAL LAB

Certificate of Analysis

FESA Lab File # 2200302
Report Date: 3/10/20
Report Status: Final

Sample Name:	**500mg Mint Tincture**	**FESA Lab Sample:**	**DOCPAT-2200302-3**
Manufacturer:	DOC Patels	**Receipt Date:**	3/2/2020
Lot Number	BO19_3	**Receipt Condition:**	Ambient Temperature
Sample Serving Size	N/A	**Login Date:**	3/2/2020
Description	Tincture	**Date Started:**	3/2/2020

Analysis

Cannabinoid Profile

	Result (%)
CBDV	**0.02**
CBG	**0.05**
CBD	**1.90**
CBDA	<0.00025
CBN	<0.00025
Delta 9-THC	<0.00025
Delta 8-THC	<0.00025
CBC	<0.00025
THCA	<0.00025
Total Cannabinoids	**1.97**
Total THC (THC + (THCa x 0.877))	<0.00025
Total CBD (CBD+ (CBDa x 0.877))	**1.90**

Pesticide-Residue Analysis

	LOQ (ppm)	Limit (ppm)	Result (ppm)	Pass / Fail
Abamectin	0.01	0.10	ND	Pass
Bifenazate	0.01	0.10	ND	Pass
Bifenthrin	0.01	3.00	ND	Pass
Boscalid	0.01	0.10	ND	Pass
Etoxazole	0.01	0.10	ND	Pass
Imidacloprid	0.01	5.00	ND	Pass
Myclobutanil	0.01	0.10	ND	Pass
Piperonyl Butoxide	0.01	3.00	ND	Pass
Pyrethrins	0.01	0.50	ND	Pass
Spinosad	0.01	0.10	ND	Pass
Spiromesifen	0.01	0.10	ND	Pass
Spirotetramat	0.01	0.10	ND	Pass

Residual Solvents

	LOQ (ppm)	Limit (ppm)	Result (ppm)	Pass / Fail
Acetone	10	5000	ND	Pass
Acetonitrile	10	410	ND	Pass
Benzene	1	1	ND	Pass
Chloroform	1	1	ND	Pass
1,2-Dichloroethane	1	1	ND	Pass
Ethanol	10	5000	ND	Pass
Ethyl Acetate	10	5000	ND	Pass
Ethyl Ether	10	5000	ND	Pass
Ethylene Oxide	1	1	ND	Pass

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Residual Solvents

	LOQ (ppm)	Limit (ppm)	Result (ppm)	Pass / Fail
Heptane	10	5000	ND	Pass
n-Hexane	10	290	ND	Pass
Isopropanol	10	5000	ND	Pass
Methanol	10	3000	ND	Pass
Methylene Chloride	1	1	ND	Pass
Pentane	10	5000	ND	Pass
Toluene	10	890	ND	Pass
Trichloroethylene	1	1	ND	Pass
Xylenes	10	2170	ND	Pass

Heavy Metals

	LOQ (ppm)	Limit (ppm)	Result (ppm)	Pass / Fail
Arsenic	0.005	0.200	<0.005	Pass
Cadmium	0.005	0.200	<0.005	Pass
Lead	0.005	0.500	0.050	Pass
Mercury	0.005	0.100	0.020	Pass

Terpenes

	LOQ (%)	Result (%)
Camphene	0.05	<.05
3-Carene	0.05	<.05
ß-Caryophyllene	**0.05**	**0.25**
p-Cymene	0.05	<.05
Eucalyptol	0.05	<.05
Fenchol	0.05	<.05
α-Humulene	**0.05**	**0.27**
δ-Limonene	0.05	<.05
Linalool	0.05	<.05
ß-Myrcene	0.05	<.05
Nerolidol	**0.05**	**0.11**
α-Pinene	0.05	<.05
Terpinolene	0.05	<.05

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Analysis

Microbials

	Result (CFU/g)	Pass / Fail
Aerobic Plate Count	Absent / 1g	N/A
Escherichia Coli and Coliforms	Absent / 1g	Pass
Salmonella (Screening only)	Absent / 1g	Pass
Yeast and Mold Count	Absent / 1g	Pass

Method References: **Testing Location**

Cannabinoid Profile (UNODC) — **FESALabs - Santa Ana, CA**

Official Methods of Analysis, Method 2018.11.AOAC INTERNATIONAL, (Modified), Lukas Vaclavik, Frantisek Benes, Alex Krmela, Veronika Svobodova, Jana Hajsolva, and Katerina Mastovska, "Quantification of Cannabinoids in Cannabis Dried Plant Materials, Concentrates, and Oils Liquid Chromatography-Diode Array Detection Technique with Optional Mass Spectrometric Detection," First Action Method, Journal of AOAC International, Future Issue

United Nations Office on Drugs and Crime - Recommended methods for identification and analysis of cannabis and cannabis products

Multi-Residue Analysis - (AOAC_200701) — **FESALabs - Santa Ana, CA**

Official Methods of Analysis, AOAC Official Method 2007.01, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).
CEN Standard Method EN 15662: Food of plant origin - Detemination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/ partiftioning and clean-up by dispersive SPE - QuEChERS method.
List of the tested pesticides and their limits of quantification (LOQs) are available upon request.

Residual Solvents Analysis - 20 compounds (USP_467) — **FESALabs - Santa Ana, CA**

USP current revision, Chapter 62.
United States Pharmacopeia, 38nd Rev. - National Formulary 33th Ed., Method <467>, USP Convention, Inc., Rockville, MD (2015). (Modified).

Metals Analysis - 4 elements (EPA_200.8) — **FESALabs - Santa Ana, CA**

Methods for the Determination of Metals in Environmental Standards - Supplement 1, EPA-600/R-94-111, May 1994.
"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry", USEPA Method 200.8, Revision 5.1, EMMC Version.

Aerobic Plate Count (USP_61) — **FESALabs - Santa Ana, CA**

USP current revision, Chapter 61.
To satisfy the requirements of the USP, the suitability of Test Method must be completed on each matrix.
**Based on the suitability of the test method results, conditions stipulated are adequate for detecting the presence of the specified microorganism.

E. coli and Coliform Count (AOAC_99114) — **FESALabs - Santa Ana, CA**

Official Methods of Analysis, Method 991.14.AOAC INTERNATIONAL

Salmonella (USP_62) — **FESALabs - Santa Ana, CA**

USP current revision, Chapter 62.
To satisfy the requirements of the USP, the suitability of Test Method must be completed on each matrix.
**Based on the suitability of the test method results, conditions stipulated are adequate for detecting the presence of the specified microorganism.

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Method References:	Testing Location
Yeast and Mold Count (AOAC_201405) Official Methods of Analysis, Method 2014.05.AOAC INTERNATIONAL	**FESALabs - Santa Ana, CA**

Testing Location:

FESALabs
2002 S. Grand Ave., Suite B
Santa Ana, CA 92705
714-549-5050

Nader Nasralla - Lab Manager