



Certificate of Analysis

Tranquillity massage oil

Matrix: Derivative

Accession Number: 080221UD0012

Harvest/Lot ID:

Seed to Sale: *

Batch Date: 07/19/21

Batch #:

Sample Size Received: 1 units

Retail Product Size:

Ordered: 08/02/21

Completed: 08/04/21

Expires: 08/03/22

Sampling Method: SOP Client Method

Aug 04,2021 | Applied Botanics

Louisville, KY,
(502) 694-6001



CANNABINOID RESULTS

Table with 3 columns: Total THC (0.000%), Total CBD (0.582%), Total Cannabinoids (0.582%)

Table with 11 columns: CBC, CBD, CBDA, CBDV, CBG, CBGA, CBN, D8-THC, D9-THC, THCA, THCV. Includes LOD values and ND/percentage results.

Summary table with columns: Analyzed by, Date (08/02/2021), Instrument used (Shimadzu HPLC w/ PDA), Analysis Method

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-PDA). (Method: SOP.KY.02.005) sample prep and Shimadzu High Sensitivity Method SOP.KY.02.012 for analysis. LOQ for all cannabinoids is 1 mg/L. % = %w/w = Percent (Weight of Analyte/Weight Product) Total Cannabinoids result reflects the absolute sum of all cannabinoids detected. **Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation Total THC = THC + (THCa*0.877) Total CBD = CBD + (CBDA*0.877)

Table with 2 columns: Filth & Foreign Matter, PASSED

Summary table with columns: Analyzed by, Date (08/02/2021), Instrument used (Microscope (Amscope)), Analysis Method

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-2B/T Stereo Microscope is use for inspection. SOP.KY.02.11

This report shall not be reproduced, unless in its entirety, without written approval from Universal Diagnostics. This report is an Universal Diagnostics certification. The results relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Void after 1 year from test end date. Cannabinoid content of batch material may vary depending on sampling error. IC=In-control QC parameter, NC=Non-controlled QC parameter, ND=Not Detected, NA=Not Analyzed, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be reliably measured by an analytical procedure. RPD=Reproducibility of two measurements. Action Levels are State determined thresholds for human safety for consumption and/or inhalation. The result >99% are variable based on uncertainty of measurement (UM) for the analyte. The UM error is available from the lab upon request. The "Decision Rule" for the pass/fail does not include the UM. The limits are based on F.S. Rule 64-4.310.

Daniel Burriss
Lab Director
State License # 19-05-02P
ISO Accreditation # PJLA
ISO17025

Signature (handwritten)

08/04/21

Signed On



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Applied Botanics

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Table with 12 columns: Pesticides, LLOQ, Result, Units, Action Level, Pass / Fail, Pesticides, LLOQ, Result, Units, Action Level, Pass / Fail. Includes a large 'PASSED' watermark and lists various pesticides like Abamectin B1a, Acequinocyl, Aldicarb, etc.

Summary table with 4 columns: Analyzed by, Date, Instrument used, Analysis Method.

Pesticide screening is performed using LC/MS/MS which can screen down to below single digit ppb concentrations for the 57 pesticides analyzed. (Method: SOP.KY.02.022)

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Mycotoxins PASSED

Analyte	LLOQ	Result	Units	Action Level	Pass / Fail	Analyte	LLOQ	Result	Units	Action Level	Pass / Fail
Aflatoxin B1	0.001	ND	ppm	0.2	PASS	Aflatoxin B2	0.001	ND	ppm	0.2	PASS
Aflatoxin G1	0.001	ND	ppm	0.2	PASS	Aflatoxin G2	0.001	ND	ppm	0.2	PASS
Ochratoxin A+	0.001	ND	ppm	0.2	PASS						

Analyzed by	Date	Instrument used	Analysis Method
	08/02/2021	Shimadzu LCMSMS 8060	

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC/MS/MS. (Method: SOP.KY.02.022)

Residual Solvents PASSED

Solvent	LLOQ	Result	Units	Action Level (PPM)	Pass/Fail
2-Propanol	60.0	ND	ppm	5000	PASS
Acetone	60	ND	ppm	5000	PASS
Acetonitrile	60	ND	ppm	410	PASS
Butane	200	ND	ppm	5000	PASS
Ethanol	80	ND	ppm	5000	PASS
Ethyl Acetate	60	ND	ppm	5000	PASS
Ethyl Ether	40	ND	ppm	5000	PASS
Heptane	40	ND	ppm	5000	PASS
Hexane	40	ND	ppm	290	PASS
Isobutane	200	ND	ppm	5000	PASS
M/P-Xylene	80	ND	ppm	2170	PASS
Methanol	40	ND	ppm	3000	PASS
O-Xylene	40	ND	ppm	2170	PASS
Pentane	60	ND	ppm	5000	PASS
Propane	400	ND	ppm	5000	PASS
Toluene	40	ND	ppm	890	PASS
Total Xylenes	120	ND	ppm	2170	PASS

Analyzed by	Date	Instrument used	Analysis Method
	08/02/2021	Shimadzu GC 2010+	

Residual solvents testing for 16 common extraction solvents is performed via GC/MS. (Method: SOP.KY.02.024)

Heavy Metals PASSED

Metal	LLOQ	Result	Unit	Action Level	Pass / Fail
Arsenic	0.2	ND	ppm	2	PASS
Cadmium	0.2	ND	ppm	2	PASS
Lead	0.2	ND	ppm	5	PASS
Mercury	0.2	ND	ppm	1	PASS

Analyzed by	Date	Instrument used	Analysis Method
	08/02/2021	Shimadzu ICP/MS	

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen for toxic heavy metals (Arsenic, Cadmium, Lead, and Mercury). (Method SOP.KY.02.020)

Microbials PASSED

Analyte	Result
Aspergillus Flavus	not present in 1 gram.
Aspergillus Fumigatus	not present in 1 gram.
Aspergillus Niger	not present in 1 gram.
Aspergillus Terreus	not present in 1 gram.
E. Coli	not present in 1 gram.
Salmonella	not present in 1 gram.

Analyzed by	Date	Instrument used	Analysis Method
	08/02/2021	PathogenDX	

Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.KY.02.018) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological-impurity testing.

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