



## Tincture

Company Name: Farmer and Chemist      Sample Received: 7/28/2020  
Company Lot Number: MM01EXP.8.21      Release Date: 8/5/2020  
Sample Matrix: Tincture      APRC Lot Number: RMH200728H



Total THC  
0.15 %

Total CBD  
5.20 %

Cannabinoids  
5.59 %

Pesticides  
Not Tested

Microbial  
Not Tested

Residual  
Solvents  
Not Detected

Heavy Metals  
Not Detected

Terpene  
Analysis  
Tested

Prepared By: C. Wiscombe

Reviewed By: C. Gunn



## Quantitative Terpene Analysis Report

### Certificate of Analysis

#### Tincture

Company Name: Farmer & Chemist

Sample Received: 07-28-20

Company Lot Number: N/A

APRC Lot Number: RMH200728H

Sample Matrix: Tincture

Release Date: 08-03-20

Compound	Total % (w/w)	Total (mg/g)	Compound	Total % (w/w)	Total (mg/g)
$\alpha$ -Pinene	0.01	0.10	Terpinolene	ND	ND
Camphene	ND	ND	Linolool	ND	ND
$\beta$ -Pinene	0.02	0.18	Isopulegol	0.03	0.32
$\beta$ -Myrcene	0.03	0.26	Geraniol	ND	ND
$\Delta$ -3-Carene	ND	ND	$\beta$ -Caryophyllene	ND	ND
$\alpha$ -Terpinene	ND	ND	$\alpha$ -Humulene	ND	ND
p-Cymene	ND	ND	cis-Nerolidol	ND	ND
Limonene	0.02	0.18	trans-Nerolidol	ND	ND
$\alpha$ -Ocimene	0.01	0.10	Caryophyllene oxide	ND	ND
Eucalyptol	ND	ND	Guaiol	ND	ND
$\beta$ -Ocimene	ND	ND	$\alpha$ -Bisabolol	ND	ND
$\gamma$ -Terpinene	ND	ND	<b>Total Terpenes</b>	<b>0.11</b>	<b>1.13</b>

Prepared By: C. Wiscombe

Reviewed By: C. Gunn



## Residual Solvents Analysis Report

### Certificate of Analysis

#### Tincture

Company Name: Farmer & Chemist

Sample Received: 7-28-2020

Company Lot Number: NA

APRC Lot Number: RMH200728H

Sample Matrix: Topical Applicant

Release Date: 8-5-2020

Analyte	Limit (µg/g) <sup>†</sup>	Concentration (µg/g)	Disposition
1,2 Dimethoxyethane	100	ND	Pass
1,4 Dioxane	380	ND	Pass
1-Butanol	5000	ND	Pass
1-Pentanol	5000	ND	Pass
1-Propanol	5000	ND	Pass
2-Butanol	5000	ND	Pass
2-Butanone	5000	ND	Pass
2-Ethoxyethanol	160	ND	Pass
2-methylbutane	5000	ND	Pass
2-Propanol (Isopropyl Alcohol)	5000	ND	Pass
Acetone	5000	ND	Pass
Acetonitrile	410	ND	Pass
Benzene	2	ND	Pass
Butane	5000	ND	Pass
Cumene	70	ND	Pass
Cyclohexane	3880	ND	Pass
Dichloromethane (Methylene Chloride)	600	ND	Pass
2,2-dimethylbutane	290	ND	Pass
2,3-dimethylbutane	290	ND	Pass
1,2-dimethylbenzene ( <i>o</i> -Xylene)	See Xylenes	ND	Pass
1,3-dimethylbenzene ( <i>m</i> -Xylene)	See Xylenes	ND	Pass
1,4-dimethylbenzene ( <i>p</i> -Xylene)	See Xylenes	ND	Pass
Dimethyl Sulfoxide (DMSO)	5000	ND	Pass
Ethanol	5000	ND	Pass



Analyte	Limit (µg/g) <sup>†</sup>	Concentration (µg/g)	Disposition
Ethyl Acetate	5000	ND	Pass
Ethylbenzene	See Xylenes	ND	Pass
Ethyl ether	5000	ND	Pass
Ethylene glycol	620	ND	Pass
Ethylene Oxide	50	ND	Pass
Heptane	5000	ND	Pass
Hexane	290	ND	Pass
Isopropyl acetate	5000	ND	Pass
Methanol	3000	ND	Pass
Methylpropane	5000	ND	Pass
2-Methylpentane	290	ND	Pass
3-Methylpentane	290	ND	Pass
N,N-dimethylacetamide	1090	ND	Pass
N,N-dimethylformamide	880	ND	Pass
Pentane	5000	ND	Pass
Propane	5000	ND	Pass
Pyridine	100	ND	Pass
Sulfolane	160	ND	Pass
Tetrahydrofuran	720	ND	Pass
Toluene	890	ND	Pass
Xylenes <sup>‡</sup>	2170	ND	Pass

<sup>†</sup> Per Utah state code 4-41a-701(3) Section R68-29-6

<sup>‡</sup> Total Xylenes is a combination of the following: *o*-Xylene, *m*-Xylene, *p*-Xylene, and Ethylbenzene

Overall Disposition: Pass

Prepared By: A. Anderson

Reviewed By: C. Gunn



## HPLC Analysis Report

### Cannabinoid Profile Certificate of Analysis

Client: Farmer and Chemist Date Received: 07-28-2020  
Sample Name: Tincture Date Tested: 07-30-2020  
Sample Matrix: Tincture APRC #: RMH200728H  
Sample Lot: N/A

ID#	Cannabinoid	Ret. Time	Conc. (µg/mL)	% (w/w)	mg/g
1	Cannabidivarin (CBDV)	2.164	3.941	0.03	0.26
2	Cannabidiolic acid (CBDA)	ND	ND	N/A	N/A
3	Cannabigerolic acid (CBGA)	ND	ND	N/A	N/A
4	Cannabigerol (CBG)	3.008	5.403	0.04	0.36
5	Cannabidiol (CBD)	3.176	780.167	5.20	51.98
6	Tetrahydrocannabivarin (THCV)	<LOQ	<LOQ	N/A	N/A
7	Cannabinol (CBN)	INT	INT	N/A	N/A
8	Δ9-Tetrahydrocannabinol (Δ9-THC)	5.868	22.110	0.15	1.47
9	Δ8-Tetrahydrocannabinol (Δ8-THC)	6.155	2.021	0.01	0.13
10	Cannabichromene (CBC)	7.357	25.723	0.17	1.71
11	Δ9-Tetrahydrocannabinolic acid (THCA-A)	<LOQ	<LOQ	N/A	N/A

Analyzed by: C. Wiscombe

Reviewed by: C. Gunn

	%	mg/g
Total Cannabinoids	5.59	55.92
Total THC <sup>†</sup>	0.15	1.47
Total CBD <sup>‡</sup>	5.20	51.98

<sup>†</sup> Total THC is calculated by Δ9-THC + (THCA-A \* 0.877)

<sup>‡</sup> Total CBD is calculated by CBD + (CBDA \* 0.877)

Notes: CBN could not be determined due to interfering substances.





## ICP-MS Analysis Report

### Heavy Metal Certificate of Analysis

Client: Farmer and Chemist      Date Received: 7/28/2020  
Sample Name: Tincture      Date Released: 8/4/2020  
Sample Matrix: Tincture      APRC #: RMH200728H  
Sample Lot: N/A

Analyte	Conc. (ppm)	Specification <sup>†</sup> (ppm)	Disposition
Arsenic	0.087	< 2.00	Pass
Cadmium	<0.001	< 0.82	Pass
Lead	0.025	< 1.20	Pass
Mercury	0.017	< 0.40	Pass

Prepared by: Cierra Gunn

<sup>†</sup> - Per Utah State Code 4-41a-701 (3) section R68-29-7

Reviewed by: Cody Wiscombe