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1 of 8

1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products

Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 Client

Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685

USA



Summary

Test Cannabinoids Foreign Matter Heavy Metals Microbials Mycotoxins Pesticides Residual Solvents Terpenes

Date Tested Status 03/30/2023 03/27/2023 03/28/2023 03/31/2023 03/30/2023 03/30/2023 03/29/2023 03/30/2023

0.0581 mg/mL Total Δ9-THC

34.1 mg/mL Total CBD

34.3 mg/mL Total Cannabinoids

Not Tested Moisture Content **Not Detected** Foreign Matter Yes

Internal Standard Normalization

Tested

Tested

Passed

Passed

Passed

Passed

Passed

Tested

Cannabinoids by HPLC-PDA, LC-MS/MS, and/or GC-MS/MS

Analyte	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (%)	Result (mg/unit)
CBC	0.00095	0.00284	ND	ND	ND
CBCA	0.00181	0.00543	ND	ND	ND
CBCV	0.0006	0.0018	ND	ND	ND
CBD	0.00081	0.00242	34.1	3.58	1020
CBDA	0.00043	0.0013	ND	ND	ND
CBDV	0.00061	0.00182	0.0625	0.00657	1.88
CBDVA	0.00021	0.00063	ND	ND	ND
CBG	0.00057	0.00172	0.0668	0.00702	2.00
CBGA	0.00049	0.00147	ND	ND	ND
CBL	0.00112	0.00335	ND	ND	ND
CBLA	0.00124	0.00371	ND	ND	ND
CBN	0.00056	0.00169	ND	ND	ND
CBNA	0.0006	0.00181	ND	ND	ND
CBT	0.0018	0.0054	0.0168	0.00177	0.505
Δ8-THC	0.00104	0.00312	ND	ND	ND
Δ9-THC	0.00076	0.00227	0.0581	0.00611	1.74
Δ9-ΤΗCΑ	0.00084	0.00251	ND	ND	ND
Δ9-THCV	0.00069	0.00206	ND	ND	ND
Δ9-THCVA	0.00062	0.00186	ND	ND	ND
Total Δ9-THC			0.0581	0.00611	1.74
Total			34.3	3.60	1030

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA* 0.877 + Δ9-THC; Total CBD = CBDA* 0.877 + CBD;

Generated By: Ryan Bellone CCO

Date: 09/01/2023

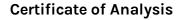
Tested By: Nicholas Howard Scientist Date: 03/30/2023













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2 of 8

1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products

Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 Client

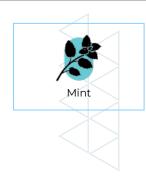
Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685

USA

Terpenes by GC-MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Analyte	LOD (%)	LOQ (%)	Result (%)
α -Bisabolol	0.002	0.01	ND	Limonene	0.002	0.01	<loq< th=""></loq<>
(+)-Borneol	0.002	0.01	ND	Linalool	0.002	0.01	ND
Camphene	0.002	0.01	ND	β-myrcene	0.002	0.01	ND
Camphor	0.004	0.02	ND	Nerol	0.002	0.01	ND
3-Carene	0.002	0.01	ND	cis-Nerolidol	0.002	0.01	ND
β-Caryophyllene	0.002	0.01	0.01524	trans-Nerolidol	0.002	0.01	ND
Caryophyllene Oxide	0.002	0.01	ND	Ocimene	0.002	0.01	ND
α -Cedrene	0.002	0.01	ND	α -Phellandrene	0.002	0.01	ND
Cedrol	0.002	0.01	ND	α-Pinene	0.002	0.01	ND
Eucalyptol	0.002	0.01	0.01867	β-Pinene	0.002	0.01	<loq< th=""></loq<>
Fenchone	0.004	0.02	ND	Pulegone	0.002	0.01	0.01079
Fenchyl Alcohol	0.002	0.01	ND	Sabinene	0.002	0.01	ND
Geraniol	0.002	0.01	ND	Sabinene Hydrate	0.002	0.01	ND
Geranyl Acetate	0.002	0.01	ND	α-Terpinene	0.002	0.01	ND
Guaiol	0.002	0.01	ND	γ-Terpinene	0.002	0.01	<loq< th=""></loq<>
α -Humulene	0.002	0.01	ND	α-Terpineol	0.001	0.005	<loq< th=""></loq<>
Isoborneol	0.002	0.01	ND	γ-Terpineol	0.001	0.005	ND
Isopulegol	0.002	0.01	ND	Terpinolene	0.002	0.01	ND
				Valencene	0.002	0.01	ND
				Total Terpenes (%)			0.0631

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit









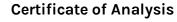


Generated By: Ryan Bellone CCO

Date: 09/01/2023

Tested By: Jasper van Heemst Principal Scientist Date: 03/30/2023







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1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products Matrix: Oil / Liquid - Hemp Seed Oil

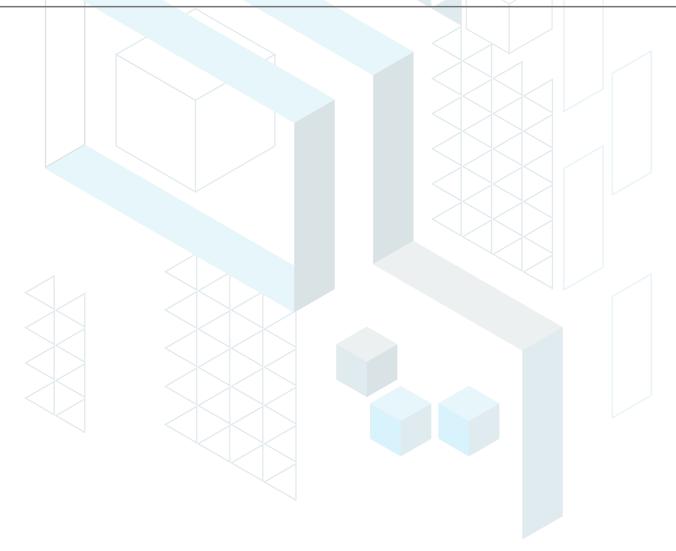
Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 **Client** Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685 USA

Heavy Metals by ICP-MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	P/F	
Arsenic	2	20	ND	Р	
Cadmium	1	20	ND	Р	
Lead	2	20	ND	Р	
Mercury	12	50	ND	Р	

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit



Generated By: Ryan Bellone CCO Date: 09/01/2023

Tested By: Kelsey Rogers Scientist Date: 03/28/2023



This product or substance has been tested by KCA Laboratories using validated testing methodologies and an ISO/IEC 170252017 accredited quality system. Values reported relate only to the product or substance tested. The reported result is based on a sample weight. Unless otherwise stated, results of tests performed on all quality control samples met criteria for acceptance established by KCA Laboratories. KCA Laboratories makes no claims as to the efficacy, safety or other risks associated with any detected or non-detected amounts of any substances reported herein. This Certificate of Analysis shall not be reproduced except in full, without the written approval of KCA Laboratories KCA Laboratories and provide measurement uncertainty upon request.





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1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products

Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 Client

Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685

USA

Pesticides by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	P/F	Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	P/F
Acephate	30	100	ND	Р	Hexythiazox	30	100	ND	Р
Acetamiprid	30	100	ND	Р	Imazalil	30	100	ND	Р
Aldicarb	30	100	ND	Р	Imidacloprid	30	100	ND	Р
Azoxystrobin	30	100	ND	Р	Kresoxim methyl	30	100	ND	Р
Bifenazate	30	100	ND	Р	Malathion	30	100	ND	Р
Bifenthrin	30	100	ND	Р	Metalaxyl	30	100	ND	Р
Boscalid	30	100	ND	Р	Methiocarb	30	100	ND	Р
Carbaryl	30	100	ND	Р	Methomyl	30	100	ND	Р
Carbofuran	30	100	ND	Р	Mevinphos	30	100	ND	Р
Chloranthraniliprole	30	100	ND	Р	Myclobutanil	30	100	ND	Р
Chlorfenapyr	30	100	ND	Р	Naled	30	100	ND	Р
Chlorpyrifos	30	100	ND	Р	Oxamyl	30	100	ND	Р
Clofentezine	30	100	ND	Р	Paclobutrazol	30	100	ND	Р
Coumaphos	30	100	ND	Р	Permethrin	30	100	ND	Р
Daminozide	30	100	ND	Р	Phosmet	30	100	ND	Р
Diazinon	30	100	ND	Р	Piperonyl Butoxide	30	100	ND	Р
Dichlorvos	30	100	ND	Р	Prallethrin	30	100	ND	Р
Dimethoate	30	100	ND	Р	Propiconazole	30	100	ND	Р
Dimethomorph	30	100	ND	Р	Propoxur	30	100	ND	Р
Ethoprophos	30	100	ND	Р	Pyrethrins	30	100	ND	Р
Etofenprox	30	100	ND	Р	Pyridaben	30	100	ND	Р
Etoxazole	30	100	ND	Р	Spinetoram	30	100	ND	Р
Fenhexamid	30	100	ND	Р	Spinosad	30	100	ND	Р
Fenoxycarb	30	100	ND	Р	Spiromesifen	30	100	ND	Р
Fenpyroximate	30	100	ND	P	Spirotetramat	30	100	ND	Р
Fipronil	30	100	ND	Р	Spiroxamine	30	100	ND	Р
Flonicamid	30	100	ND	Р	Tebuconazole	30	100	ND	Р
Fludioxonil	30	100	ND	P	Thiacloprid	30	100	ND	Р
					Thiamethoxam	30	100	ND	Р
					Trifloxystrobin	30	100	ND	Р

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit

Generated By: Ryan Bellone CCO

Date: 09/01/2023

Tested By: Jasper van Heemst Principal Scientist Date: 03/30/2023





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1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products Matrix: Oil / Liquid - Hemp Seed Oil

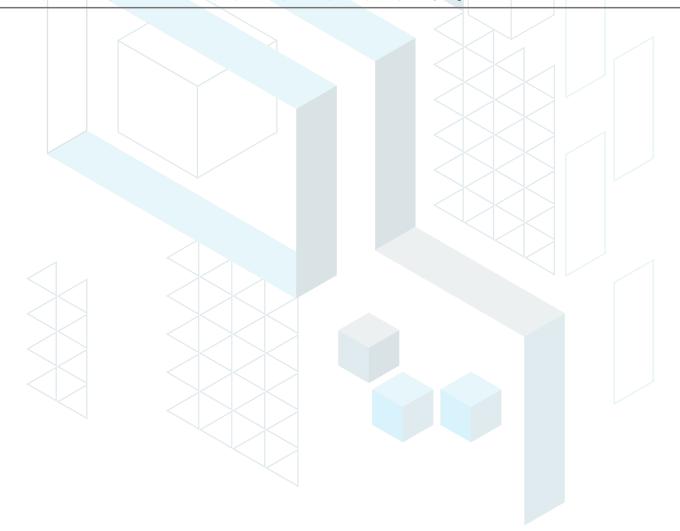
Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 **Client** Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685 USA

Mycotoxins by LC-MS/MS

Analyte LOD (ppb) LOQ (ppb) Result (ppb) P/F	
B1 1 5 ND P	
B2 1 5 ND P	
G1 1 5 ND P	
G2 1 5 ND P	
Ochratoxin A 1 5 ND P	

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit



Generated By: Ryan Bellone CCO Date: 09/01/2023 Tested By: Jasper van Heemst Principal Scientist Date: 03/30/2023





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Certificate of Analysis

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1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842 Type: Finished Products Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 **Client** Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685 USA

Microbials by PCR and Plating

Analyte	LOD (CFU/g)	Result (CFU/g)	P/F
Total aerobic count		ND	P
Total coliforms	1	ND	Р
Generic E. coli	1	ND	P
Salmonella spp.	1	ND	Р
Shiga-toxin producing E. coli (STEC)	1	ND	P
			Y

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; CFU = Colony Forming Units; P = Pass; F = Fail; RL = Reporting Limit



Generated By: Ryan Bellone CCO Date: 09/01/2023

Tested By: Lucy Jone: Scientist Date: 03/31/2023







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1000mg Mint Tincture

Sample ID: SA-230403-19718 Batch: 2022-0842

Type: Finished Products

Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 Client

Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685

USA

Residual Solvents by HS-GC-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	P/F	Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	P/F
Acetone	167	500	ND	Р	Ethylene Glycol	21	62	ND	Р
Acetonitrile	14	41	ND	Р	Ethylene Oxide	0.5	1	ND	Р
Benzene	0.5	1	ND	Р	Heptane	167	500	ND	Р
Butane	167	500	ND	Р	n-Hexane	10	29	ND	Р
1-Butanol	167	500	ND	Р	Isobutane	167	500	ND	Р
2-Butanol	167	500	ND	Р	Isopropyl Acetate	167	500	ND	Р
2-Butanone	167	500	ND	Р	Isopropyl Alcohol	167	500	ND	Р
Chloroform	2	6	ND	Р	Isopropylbenzene	167	500	ND	Р
Cyclohexane	129	388	ND	Р	Methanol	100	300	ND	Р
1,2-Dichloroethane	0.5	1	ND	Р	2-Methylbutane	10	29	ND	Р
1,2-Dimethoxyethane	4	10	ND	Р	Methylene Chloride	20	60	ND	Р
Dimethyl Sulfoxide	167	500	ND	Р	2-Methylpentane	10	29	ND	Р
N,N-Dimethylacetamide	37	109	ND	Р	3-Methylpentane	10	29	ND	Р
2,2-Dimethylbutane	10	29	ND	Р	n-Pentane	167	500	ND	Р
2,3-Dimethylbutane	10	29	ND	Р	1-Pentanol	167	500	ND	Р
N,N-Dimethylformamide	30	88	ND	Р	n-Propane	167	500	ND	Р
2,2-Dimethylpropane	167	500	ND	Р	1-Propanol	167	500	ND	Р
1,4-Dioxane	13	38	ND	Р	Pyridine	7	20	ND	Р
Ethanol	167	500	ND	Р	Tetrahydrofuran	24	72	ND	Р
2-Ethoxyethanol	6	16	ND	Р	Toluene	30	89	ND	Р
Ethyl Acetate	167	500	ND	Р	Trichloroethylene	3	8	ND	Р
Ethyl Ether	167	500	ND	Р	Tetramethylene Sulfone	6	16	ND	Р
Ethylbenzene	3	7	ND	Р	Xylenes (o-, m-, and p-)	73	217	ND	Р

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit

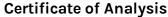
RAL

Generated By: Ryan Bellone CCO

Date: 09/01/2023

Tested By: Scott Caudill Laboratory Manager Date: 03/29/2023







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1000mg Mint Tincture

Sample ID: SA-230403-19718

Batch: 2022-0842 Type: Finished Products

Matrix: Oil / Liquid - Hemp Seed Oil

Unit Mass (g):

Collected: 03/22/2023 Received: 03/27/2023 Completed: 03/31/2023 Client

Wrapped in Hearts 10855 Giesler Loop Shipman, IL 62685

USA

Reporting Limit Appendix

Heavy Metals - Colorado CDPHE

Analyte	ı	Limit (ppb) Analyte	Limit (ppb)
Arsenic		1500	Lead	500
Cadmium		500	Mercury	1500

Microbials -

Analyte	Limit (CFU/ g) Analyte	Limit (CFU/
Total coliforms	100 Total aerobic count	100000

Residual Solvents - USP 467

Analyte	Limit (ppm)	Analyte	Limit (ppm
Acetone	5000	Ethylene Glycol	620
Acetonitrile	410	Ethylene Oxide	1
Benzene	2	Heptane	5000
Butane	5000	n-Hexane	290
1-Butanol	5000	Isobutane	5000
2-Butanol	5000	Isopropyl Acetate	5000
2-Butanone	5000	Isopropyl Alcohol	5000
Chloroform	60	Isopropylbenzene	5000
Cyclohexane	3880	Methanol	3000
1,2-Dichloroethane	5	2-Methylbutane	290
1,2-Dimethoxyethane	100	Methylene Chloride	600
Dimethyl Sulfoxide	5000	2-Methylpentane	290
N,N-Dimethylacetamide	1090	3-Methylpentane	290
2,2-Dimethylbutane	290	n-Pentane	5000
2,3-Dimethylbutane	290	1-Pentanol	5000
N,N-Dimethylformamide	880	n-Propane	5000
2,2-Dimethylpropane	5000	1-Propanol	5000
1,4-Dioxane	380	Pyridine	200
Ethanol	5000	Tetrahydrofuran	720
2-Ethoxyethanol	160	Toluene	890
Ethyl Acetate	5000	Trichloroethylene	80
Ethyl Ether	5000	Tetramethylene Sulfone	160
Ethylbenzene	70	Xylenes (o-, m-, and p-)	2170

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Aldicarb	30	Imidacloprid	3000
Azoxystrobin	40000	Kresoxim methyl	1000
Bifenazate	5000	Malathion	5000
Bifenthrin	500	Metalaxyl	15000
Boscalid	10000	Methiocarb	30
Carbaryl	500	Methomyl	100
Carbofuran	30	Mevinphos	30
Chloranthraniliprole	40000	Myclobutanil	9000
Chlorfenapyr	30	Naled	500
Chlorpyrifos	30	Oxamyl	200
Clofentezine	500	Paclobutrazol	30
Coumaphos	30	Permethrin	20000
Daminozide	30	Phosmet	200
Diazinon	200	Piperonyl Butoxide	8000
Dichlorvos	30	Prallethrin	400
Dimethoate	30	Propiconazole	20000
Dimethomorph	20000	Propoxur	30
Ethoprophos	30	Pyrethrins	1000
Etofenprox	30	Pyridaben	3000
Etoxazole	1500	Spinetoram	3000
Fenhexamid	10000	Spinosad	3000
Fenoxycarb	30	Spiromesifen	12000
Fenpyroximate	2000	Spirotetramat	13000
Fipronil	30	Spiroxamine	30
Flonicamid	2000	Tebuconazole	2000
Fludioxonil	30000	Thiacloprid	30

Mycotoxins - Colorado CDPHE

Analyte	Limit (ppm) Analyte	Limit (ppm)
B1	5 B2	5
G1	5 G2	5
Ochratoxin A	5	

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Acephate	5000	Hexythiazox	2000
Acetamiprid	5000	Imazalil	30

