

ALKUHME
4520 GLENMEADE LANE
AUBURN HILLS, MI 48326

Certificate of Analysis



Order #: ALK200213-040008 Order Date: 2020-02-13 Collection Date: 2020-02-14 Report Date: 2020-02-20

Batch #: B3021220
Sample #: AAAC388
Specimen Type: CBD/HEMP Derivative Products (Ingestion)
Extracted From: hemp
Description: CBD Tincture 500 mg

Initial Gross Weight: 77454mg
Net Weight: 28197mg
Method: SOP-3



Potency Tested	Residual Solvents Passed	Heavy Metals Passed
Pathogenic Passed	Pathogenic Microbiology Passed	Pesticides Passed

CBD Total
1.796% 506.418mg

THC Total
Not Detected

CBG Total
0.028% 7.811mg

CBN Total
0.001% 0.388mg

Other Cannabinoids
0.105% 29.621mg

Total Cannabinoids
1.976% 557.166mg

Potency - 11 (Tested)

Potency - 11 (Tested)								(HPLC)			
Analyte	Result (mg/g)	(%)	LOQ (%)	Analyte	Result (mg/g)	(%)	LOQ (%)	Analyte	Result (mg/g)	(%)	LOQ (%)
CBC	0.852	0.085	0.001	CBD	17.960	1.796	0.001	CBDA	<LOQ		0.001
CBDV	0.199	0.020	0.001	CBG	0.277	0.028	0.001	CBGA	<LOQ		0.001
CBN	0.014	0.001	0.001	Delta-8-THC		<LOQ	0.1	Delta-9-THC	<LOQ		0.1
THCA-A	<LOQ		0.1	THCV		<LOQ	0.1	Total CBD	17.960	1.796	0.001
Total THC	<LOQ		0.1								

*Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Total (mg) = Total (%) * 100 * Net Weight(mg) (mg/g) = Milligram per Gram, , LOQ = Limit of Quantitation

Xueli Gao
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Lab Toxicologist

Aixia Sun
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Principal Scientist

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Residual Solvents (Extract Only) (Passed) (GC/GCMS)

Analyte	Action Level (ppm)	Result (ppm)	LOQ (ppm)	Analyte	Action Level (ppm)	Result (ppm)	LOQ (ppm)	Analyte	Action Level (ppm)	Result (ppm)	LOQ (ppm)
Acetone	5000	<LOQ	87.9	Benzene	1.6	<LOQ	1.6	Chloroform	53	<LOQ	53
Ethanol	5000	<LOQ	26.7	Hexane	60	<LOQ	36.6	I-Butane	5000	<LOQ	100
Isopropanol	5000	<LOQ	52.3	Methanol	3000	<LOQ	87.9	N-Butane	5000	<LOQ	200
Pentane	5000	<LOQ	389.5	Toluene	890	<LOQ	38.4				

(ppm) = Parts per Million, (ppm) = (Åµg/g), , LOQ = Limit of Quantitation

Heavy Metals (Passed) (ICP-MS)

Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)	Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)	Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)
Arsenic (As)	1500	<LOQ	100	Cadmium (Cd)	500	Passed	100	Lead (Pb)	500	<LOQ	100
Mercury (Hg)	3000	<LOQ	100								

(ppb) = Parts per Billion, (ppb) = (Åµg/kg), , LOQ = Limit of Quantitation

Pathogenic Microbiology #3 (HEMP Compliance Panel) (Passed) (qPCR)

Analyte	Result
Listeria	
Monocytogenes	Absence

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Pathogenic Microbiology #1 (MMTC Compliance Panel) (Passed)

(Micro Array)

Analyte	Result	Analyte	Result
Salmonella	Absence	STEC E. Coli	Absence

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Pesticides (Passed)

(LCMS/MS)

Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)	Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)	Analyte	Action Level (ppb)	Result (ppb)	LOQ (ppb)
Abamectin	300	<LOQ	28.23	Acephate	3000	<LOQ	30	Acequinocyl	2000	<LOQ	48
Acetamiprid	3000	<LOQ	30	Aldicarb	100	<LOQ	30	Azoxystrobin	3000	<LOQ	10
Bifenazate	3000	<LOQ	30	Bifenthrin	500	<LOQ	30	Chlorfenapyr	100	<LOQ	48
Chlorpyrifos	100	<LOQ	30	Clofentezine	500	<LOQ	30	Coumaphos	100	<LOQ	30
Cypermethrin	1000	<LOQ	30	Daminozide	100	<LOQ	30	DDVP(Dichlorvos)	100	<LOQ	30
Diazinon	200	<LOQ	30	Dimethoate	100	<LOQ	30	Dimethomorph	3000	<LOQ	30
Ethoprop(hos)	100	<LOQ	30	Etofenprox	100	<LOQ	30	Etoazole	1500	<LOQ	30
Fenhexamid	3000	<LOQ	30	Fenoxycarb	100	<LOQ	30	Fipronil	100	<LOQ	30
Flonicamid	2000	<LOQ	30	Fludioxonil	3000	<LOQ	30	Hexythiazox	2000	<LOQ	30
Imazalil	100	<LOQ	30	Imidacloprid	3000	<LOQ	30	Kresoxim Methyl	1000	<LOQ	30
Malathion A	2000	<LOQ	30	Metalaxyl	3000	<LOQ	10	Methiocarb	100	<LOQ	30
Methomyl	100	<LOQ	30	Mevinphos	100	<LOQ	30	Myclobutanil	3000	<LOQ	30
Naled	500	<LOQ	30	Oxamyl	500	<LOQ	30	Paclobutrazol	100	<LOQ	30
Parathion-methyl	100	<LOQ	10	Pentachloronitrobenzene	200	<LOQ	30	Permethrin	1000	<LOQ	30
Piperonylbutoxide	3000	Passed	30	Prallethrin	400	<LOQ	30	Phosmet	200	<LOQ	30
Propoxur	100	<LOQ	30	Pyrethrins	1000	<LOQ	30	Propiconazole	1000	<LOQ	30
Spinetoram	3000	<LOQ	30	Spinosyn A	3000	<LOQ	30	Pyridaben	3000	<LOQ	30
Spiromesifen	3000	<LOQ	30	Spirotetramat	3000	<LOQ	30	Spinosyn D	3000	<LOQ	30
Tebuconazole	1000	<LOQ	30	Thiacloprid	100	<LOQ	30	Spiroxamine	100	<LOQ	30
Trifloxystrobin	3000	<LOQ	30					Thiamethoxam	1000	<LOQ	30

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