



Certificate of Analysis

R&D

Batch # 0100060
Batch Date: 2021-12-20
Extracted From: Hemp

Test Reg State: Colorado

Sampling Date: 2021-12-22
Lab Batch Date: 2021-12-22
Completion Date: 2021-12-27

Initial Gross Weight: 104.952 g



Product Image

Potency
TestedTerpenes
TestedHeavy Metals
PassedMycotoxins
PassedPesticides
PassedResidual
Solvents
PassedPathogenic
PassedMicrobiology
Petrifilm
Passed

Potency - 11

Specimen Weight: 33.860 mg

Tested
(HPLC/LCMS)

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	1000.000	0.000054	0.001	98.1100	98.110
CBDV	1000.000	0.000065	0.001	3.890	0.389
CBC	1000.000	0.000018	0.001		<LOQ
THCV	1000.000	0.000007	0.001		<LOQ
Delta-9 THC	1000.000	0.000013	0.001		<LOQ
Delta-8 THC	1000.000	0.000026	0.001		<LOQ
CBN	1000.000	0.000014	0.001		<LOQ
CBGA	1000.000	0.00008	0.001		<LOQ
CBG	1000.000	0.000248	0.001		<LOQ
CBDA	1000.000	0.00001	0.001		<LOQ
THCA-A	1000.000	0.000032	0.001		<LOQ



Potency Summary

Total THC None Detected	Total CBD 98.110%
Total CBG None Detected	Total CBN None Detected
Other Cannabinoids 0.389%	Total Cannabinoids 98.499%



Terpenes Summary

Analyte	Result (mg/g)	(%)
Total Terpenes: 0.000%		

Detailed Terpenes Analysis is on the following page

Xueli Gao
Ph.D., DABT

Lab Toxicologist

Aixia Sun
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Lab Director/Principal Scientist



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Terpenes

Specimen Weight: 58.670 mg

Tested
(GC/GCMS)

Dilution Factor: 20.000

Analyte	LOQ (%)	Result (mg/g)	(%)	Analyte	LOQ (%)	Result (mg/g)	(%)
(+)-Cedrol	0.002	<LOQ		Nerol	0.002	<LOQ	
Geraniol	0.002	<LOQ		Geranyl acetate	0.002	<LOQ	
Guaiol	0.002	<LOQ		Hexahydrothymol	0.002	<LOQ	
Isoborneol	0.002	<LOQ		Isopulegol	0.002	<LOQ	
Linalool	0.002	<LOQ		Ocimene	0.000	<LOQ	
Fenchyl Alcohol	0.002	<LOQ		Pulegone	0.002	<LOQ	
Sabinene	0.002	<LOQ		Sabinene Hydrate	0.002	<LOQ	
Terpinolene	0.002	<LOQ		Total Terpeneol	0.001	<LOQ	
trans-Caryophyllene	0.002	<LOQ		trans-Nerolidol	0.002	<LOQ	
Gamma-Terpinene	0.002	<LOQ		Fenchone	0.002	<LOQ	
(R)-(+)-Limonene	0.002	<LOQ		3-Carene	0.002	<LOQ	
alpha-Bisabolol	0.002	<LOQ		alpha-Cedrene	0.002	<LOQ	
alpha-Humulene	0.002	<LOQ		alpha-Phellandrene	0.002	<LOQ	
alpha-Pinene	0.002	<LOQ		alpha-Terpinene	0.002	<LOQ	
Farnesene	0.002	<LOQ		beta-Myrcene	0.002	<LOQ	
beta-Pinene	0.002	<LOQ		Borneol	0.004	<LOQ	
Camphene	0.002	<LOQ		Camphors	0.006	<LOQ	
Caryophyllene oxide	0.002	<LOQ		cis-Nerolidol	0.002	<LOQ	
Eucalyptol	0.002	<LOQ		Valencene	0.002	<LOQ	

Total Terpenes: 0.000%

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Lab Toxicologist

Aixia Sun
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Heavy Metals - CO Passed (ICP-MS)

Specimen Weight: 249.900 mg

Dilution Factor: 2.000

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

Mycotoxins - CO Passed (LCMS)

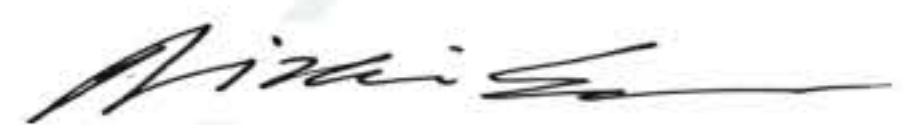
Specimen Weight: 154.200 mg

Dilution Factor: 9.728

Analyte	LOQ (ppb)	Action Limit (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Limit (ppb)	Result (ppb)
Aflatoxin B1	2.5	5	<LOQ	Aflatoxin Total	2.5	20	<LOQ
Ochratoxin A	3.5	5	<LOQ				

*Aflatoxin Total = B1 + B2 + G1 + G2


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Pesticides - CO (Limited)

Specimen Weight: 154.200 mg

Passed
(LCMS/GCMS)

Dilution Factor: 9.728

Analyte	LOQ (ppb)	Action Limit (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Limit (ppb)	Result (ppb)
Abamectin	250	250	<LOQ	Acephate	50	50	<LOQ
Acequinocyl	30	na	<LOQ	Acetamiprid	50	50	<LOQ
Aldicarb	500	500	<LOQ	Azoxystrobin	10	10	<LOQ
Bifenazate	10	10	<LOQ	Bifenthrin	1000	na	<LOQ
Boscalid	10	10	<LOQ	Carbaryl	25	25	<LOQ
Carbofuran	10	10	<LOQ	Chlorantraniliprole	20	na	<LOQ
Chlorphenapyr	1500	1500	<LOQ	Chlorpyrifos	500	500	<LOQ
Clofentezine	10	10	<LOQ	Cyfluthrin	200	na	<LOQ
Cypermethrin	300	na	<LOQ	Daminozide	100	na	<LOQ
Diazinon	500	na	<LOQ	Dichlorvos	50	50	<LOQ
Dimethoate	10	10	<LOQ	Ethoprophos	10	10	<LOQ
Etofenprox	50	na	<LOQ	Etoxazole	20	na	<LOQ
Fenoxycarb	10	10	<LOQ	Fenpyroximate	20	na	<LOQ
Fipronil	10	10	<LOQ	Flonicamid	25	25	<LOQ
Fludioxonil	10	10	<LOQ	Hexythiazox	10	na	<LOQ
Imazalil	10	10	<LOQ	Imidacloprid	10	10	<LOQ
Kresoxim Methyl	150	150	<LOQ	Malathion	10	10	<LOQ
Metalaxyl	10	10	<LOQ	Methiocarb	10	10	<LOQ
Methomyl	25	25	<LOQ	methyl-Parathion	50	na	<LOQ
MGK-264	50	na	<LOQ	Myclobutanil	10	10	<LOQ
Naled	100	na	<LOQ	Oxamyl	1500	1500	<LOQ
Paclobutrazol	10	10	<LOQ	Permethrin	500	na	<LOQ
Phosmet	20	na	<LOQ	Piperonylbutoxide	1250	1250	<LOQ
Prallethrin	50	na	<LOQ	Propiconazole	100	na	<LOQ
Propoxur	10	10	<LOQ	Pyrethrins	50	na	<LOQ
Pyridaben	20	20	<LOQ	Spinosad	10	10	<LOQ
Spiromesifen	3000	na	<LOQ	Spirotetramat	10	10	<LOQ
Spiroxamine	100	na	<LOQ	Tebuconazole	10	10	<LOQ
Thiacloprid	10	10	<LOQ	Thiamethoxam	10	10	<LOQ
Trifloxystrobin	10	10	<LOQ				

* Not Available or Established

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Residual Solvents - CO

Specimen Weight: 105.000 mg

Passed
(GCMS)

Dilution Factor: 50.000

Analyte	LOQ (ppm)	Action Limit (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Limit (ppm)	Result (ppm)
Acetone	2.08	1000	<LOQ	Benzene	0.02	2	<LOQ
Butanes	2.5	1000	<LOQ	Ethanol	2.78	1000	<LOQ
Ethyl Acetate	1.11	1000	<LOQ	Heptane	1.39	1000	<LOQ
Hexane	1.17	60	<LOQ	Isopropyl alcohol	1.39	1000	<LOQ
Methanol	0.69	600	<LOQ	Pentane	2.08	1000	282.668
Propane	5.83	1000	<LOQ	Toluene	2.92	180	<LOQ
Total Xylenes	2.92	430	<LOQ				



Pathogenic SE (qPCR) - CO

Specimen Weight: 222.000 mg

Passed
(qPCR)

Dilution Factor: 1.000

Analyte	Action Limit (cfu/g)	Result (cfu/g)	Analyte	Action Limit (cfu/g)	Result (cfu/g)
E.Coli	Absent in 25g	Passed	Salmonella	Absent in 25g	Passed

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Microbiology (Petrifilm/Plating) - CO

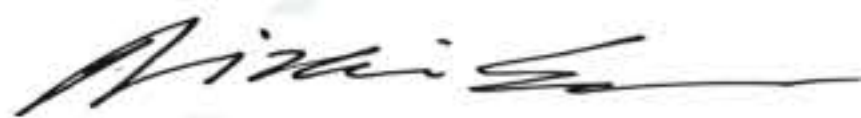
Specimen Weight: 994.200 mg

Passed
(Petrifilm)

Dilution Factor: 1.000

Analyte	LOQ (cfu/g)	Action Limit (cfu/g)	Result (cfu/g)	Analyte	LOQ (cfu/g)	Action Limit (cfu/g)	Result (cfu/g)
Aerobic Bacteria	10	10000	<10	Total Coliform	10	100	<10
Yeast/Mold	10	1000	<10				


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