

Certificate of Analysis

Produced: Sep 27, 2024

Sample: CBD Isolate (Isolate) • Client: Red Mesa Science and Refining • Batch: Passed as Utah Hemp



Batch No.: R240915MS08MS07
Matrix: Isolate
Sample ID: ICC-240924-01-001
Collected on: Sep 24, 2024
Received on: Sep 24, 2024
Sample Size:
Received By: Olivia Trevino

Batch Result: Passed as Utah Hemp

Potency	Tested	Mycotoxins	Pass
Metals	Pass	Pesticides	Pass
Microbial	Tested	Solvents	Pass

Cannabinoid Overview

Δ⁹-THC:	0.00 %
CBD:	99.2 %
Sum of Cannabinoids:	99.6 %

POT-PREP-001, POT-INST-005: Potency

Analyte	Amt (%)	Amt (mg/g)	LOD/LOQ (mg/g)	Analyte	Amt (%)	Amt (mg/g)	LOD/LOQ (mg/g)
CBC	ND	ND	0.337/1.01	CBT	ND	ND	0.146/0.511
CBD	99.2	990	0.103/0.511	Δ ⁸ -THC	ND	ND	0.0827/0.511
CBDA	ND	ND	0.247/0.740	Δ ⁹ -THC	ND	ND	0.136/0.511
CBDV	0.376	3.8	0.0818/0.511	THCA	ND	ND	0.188/0.563
CBG	ND	ND	0.116/0.511	THCV	ND	ND	0.0631/0.511
CBGA	ND	ND	0.182/0.546	Total THC**	ND	ND	
CBL	ND	ND	0.0805/0.511	Total CBD**	99.2	990	
CBN	ND	ND	0.116/0.511				

Total THC = THCa * 0.877 + Δ⁹-THC; Total CBD = CBDA * 0.877 + CBD; NR= Not Reported, ND= Not Detected, *Reported by Dry Mass*; *analytical instrumentation used Cannabinoids: UHPLC-DAD, Moisture: Mass by Drying, Water Activity: Water Activity Meter, Foreign: Microscope* *Density tested at a temperature range between 19-24 °C, *Water Activity tested at a humidity range between 0-90% Relative Humidity. All OA samples are sampled by the client, All California State Compliant samples sampled using SAMPL-SOP-001.

PEST-GC-PREP-001, PEST-GC-INST-003: Pesticide Analysis by GC-MS/MS

Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Captan	ND	0.120/0.358	Pass	Cypermethrin	ND	0.0602/0.181	Pass
Chlordane	ND	0.0249/0.0747	Pass	Methyl parathion	ND	0.00811/0.0243	Pass
Cyfluthrin	ND	0.0186/0.0558	Pass	Pentachloronitrobenzene	ND	0.0182/0.0545	Pass
Chlorfenapyr	ND	0.0251/0.0753	Pass				



PESTMYCO-LC-PREP-001, PESTMYCO-LC-INST-004: Pesticide Analysis by LC-MS/MS

Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Naled	ND	0.00849/0.0300	Pass	Acetamiprid	ND	0.00496/0.0300	Pass
Oxamyl	ND	0.00746/0.0300	Pass	Ethoprofos	ND	0.00610/0.0300	Pass
Phosmet	ND	0.00511/0.0300	Pass	Fludioxonil	ND	0.0119/0.0362	Pass
Acephate	ND	0.00743/0.0300	Pass	Hexythiazox	ND	0.00124/0.0300	Pass
Aldicarb	ND	0.00838/0.0300	Pass	Prallethrin	ND	0.0235/0.0711	Pass
Boscalid	ND	0.00809/0.0300	Pass	Spiroxamine	ND	0.00555/0.0300	Pass
Carbaryl	ND	0.00604/0.0300	Pass	Thiacloprid	ND	0.00506/0.0300	Pass
Diazinon	ND	0.00475/0.0300	Pass	Abamectin Ba	ND	0.0500/0.100	N/A
Fipronil	ND	0.0165/0.0500	Pass	Azoxystrobin	ND	0.00530/0.0300	Pass
Imazalil	ND	0.00898/0.0300	Pass	Chlorpyrifos	ND	0.0152/0.0460	Pass
Methomyl	ND	0.00879/0.0300	Pass	Clofentezine	ND	0.00206/0.0300	Pass
Propoxur	ND	0.00780/0.0300	Pass	Dimethomorph	ND	0.00454/0.0300	Pass
Coumaphos	ND	0.00393/0.0300	Pass	Imidacloprid	ND	0.0109/0.0331	Pass
Etoxazole	ND	0.00365/0.0300	Pass	Myclobutanil	ND	0.00707/0.0300	Pass
Malathion	ND	0.00313/0.0300	Pass	Spinetoram J	ND	0.00500/0.0100	N/A
Metaxalyl	ND	0.00467/0.0300	Pass	Spinetoram L	ND	0.00500/0.0100	N/A
Mevinphos	ND	0.00772/0.0300	Pass	Spiromesifen	ND	0.00894/0.0300	Pass
Pyridaben	ND	0.00231/0.0300	Pass	Tebuconazole	ND	0.00605/0.0300	Pass
Bifenazate	ND	0.00706/0.0300	Pass	Thiamethoxam	ND	0.00760/0.0300	Pass
Bifenthrin	ND	0.00439/0.0300	Pass	Fenpyroximate	ND	0.00396/0.0300	Pass
Carbofuran	ND	0.00538/0.0300	Pass	Paclobotrazol	ND	0.00851/0.0300	Pass
Daminozide	ND	0.0176/0.0534	Pass	Propiconazole	ND	0.00909/0.0300	Pass
Dichlorvos	ND	0.0182/0.0550	Pass	Spirotetramat	ND	0.00808/0.0300	Pass
Dimethoate	ND	0.00592/0.0300	Pass	Permethrin cis	ND	0.0200/0.0300	N/A
Etofenprox	ND	0.00437/0.0300	Pass	Kresoxim-methyl	ND	0.00708/0.0300	Pass
Fenhexamid	ND	0.0113/0.0342	Pass	Trifloxystrobin	ND	0.00293/0.0300	Pass
Fenoxycarb	ND	0.00415/0.0300	Pass	Permethrin trans	ND	0.0200/0.0300	N/A
Flonicamid	ND	0.0115/0.0350	Pass	Piperonylbutoxide	ND	0.00267/0.0300	Pass
Methiocarb	ND	0.00245/0.0300	Pass	Chlorantraniliprole	ND	0.00883/0.0300	Pass
Spinosad A	ND	0.00500/0.0100	N/A	Pyrethrins Pyrethrin I	ND	0.0100/0.0450	N/A
Spinosad D	ND	0.00500/0.0100	N/A	Pyrethrins Pyrethrin II	ND	0.0100/0.0300	N/A
Acequinocyl	ND	0.0150/0.0456	Pass				

PESTMYCO-LC-PREP-001, PESTMYCO-LC-INST-004: Mycotoxin Analysis by LC-MS/MS

Analyte	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail	Analyte	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail
Aflatoxin B1	ND	2.96/8.98	N/A	Aflatoxin G2	ND	2.07/6.26	N/A
Aflatoxin B2	ND	3.36/10.2	N/A	Ochratoxin A	ND	4.41/13.4	Pass
Aflatoxin G1	ND	1.73/5.25	N/A				

Utah RS-PREP-001, Utah RS-INST-003: Utah Residual Solvents by GC-MS

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
1,2-Dimethoxyethane		ND	6.00/18.0	N/A	Ethylene glycol		ND	3.40/10.3	N/A
1,4-Dioxane		ND	12.9/38.6	N/A	Ethylene oxide		ND	6.50/19.6	N/A
1-Butanol		ND	3.10/9.40	N/A	Ethyl ether		ND	6.80/20.4	N/A
1-Pentanol		ND	10.0/29.9	N/A	Heptane		ND	0.400/1.20	N/A
1-Propanol		ND	7.00/21.0	N/A	Hexane		ND	0.500/1.50	N/A
2,3-Dimethylbutane		ND	0.900/2.80	N/A	Isobutane		ND	10.2/30.7	N/A
2-Butanol		ND	9.60/28.7	N/A	Isopropyl acetate		ND	4.10/12.4	N/A
2-Butanone		ND	7.20/21.6	N/A	Isopropyl alcohol		ND	11.5/34.6	N/A
2-Ethoxyethanol		ND	3.90/11.6	N/A	Isopropylbenzene		ND	8.30/25.0	N/A
2-Methylbutane		6.41	0.700/2.00	N/A	Methanol		ND	18.4/55.3	N/A
2-Methylpentane		ND	9.10/27.2	N/A	Methylene chloride		ND	4.00/11.9	N/A
3-Methylpentane		ND	7.40/22.1	N/A	N,N-Dimethylacetamide		ND	269/807	N/A
Acetone		ND	8.20/24.7	N/A	Pentane	1450	ND	0.800/2.50	N/A
Acetonitrile		ND	8.40/25.1	N/A	Propane		ND	7.90/23.8	N/A
Benzene		ND	0.400/1.10	N/A	Pyridine		ND	19.6/58.6	N/A
Butane		ND	9.60/28.7	N/A	Sulfolane		ND	22.9/68.7	N/A
Cyclohexane		ND	8.40/25.3	N/A	Tetrahydrofuran		ND	6.20/18.6	N/A
Ethanol	5000	ND	4.80/14.4	Pass	Toluene		ND	0.400/1.20	N/A
Ethyl acetate		ND	14.3/42.8	N/A	o-Xylene		ND	8.80/26.3	N/A
Ethylbenzene		ND	3.50/10.5	N/A	p- and m-Xylene		ND	1.60/4.90	N/A

MICR-002: Petrifilm-Aerobic

Analyte	Amt	Pass/Fail
Aerobic Bacteria	ND	N/A



HM-PREP-001, HM-INST-003: Heavy Metals Testing by ICP-MS

Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Lead	0.00510	0.00100/0.00400	Pass
Arsenic	ND	0.00300/0.00900	Pass

Analyte	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Cadmium	ND	0.00100/0.00200	Pass
Mercury	ND	0.00500/0.0140	Pass

