



Certificate of Analysis
Compliance Test

Client Information:

TURF ORIGINS
1276 STATE ROAD 415
NEW SMYRNA BEACH, FLORIDA
32168

Batch # G-001
Batch Date: 2023-06-08
Extracted From: Hemp

Test Reg State: Florida

Order # TUR230608-010001
Order Date: 2023-06-08
Sample # AAE0048

Sampling Date: 2023-06-09
Lab Batch Date: 2023-06-09
Completion Date: 2023-06-13

Initial Gross Weight: 17.789 g
Net Weight: 15.889 g

Number of Units: 1
Net Weight per Unit: 3177.800 mg
Sampling Method: MSP 7.3.1



Product Image

Potency Tested
Heavy Metals Passed
Mycotoxins Passed
Pesticides Passed
Residual Solvents Passed

Pathogenic Microbiology Passed
Listeria Monocytogenes Passed

Potency 25 (LCUV)
Specimen Weight: 1501.000 mg

Tested
SOP13.002 (LCUV)

Potency Summary

Total Active THC None Detected	Total Active CBD 0.881% 27.980mg
Total CBG None Detected	Total CBN None Detected
Other Cannabinoids 0.003% 0.100mg	Total Cannabinoids 0.883% 28.060mg

Pieces For Panel: 5

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	1000.000	5.40E-5	0.0015	8.8050	0.8805
CBDV	10.000	6.50E-5	0.0015	0.0330	0.0033
CBC	10.000	1.80E-5	0.0015	<LOQ	<LOQ
CBCA	10.000	1.07E-4	0.0015	<LOQ	<LOQ
CBDVA	10.000	1.00E-5	0.0015	<LOQ	<LOQ
CBDVA	10.000	1.40E-5	0.0015	<LOQ	<LOQ
CBG	10.000	2.48E-4	0.0015	<LOQ	<LOQ
CBGA	10.000	8.00E-5	0.0015	<LOQ	<LOQ
CBL	10.000	3.50E-5	0.0015	<LOQ	<LOQ
CBN	10.000	1.40E-5	0.0015	<LOQ	<LOQ
CBNA	10.000	9.50E-5	0.0015	<LOQ	<LOQ
CBT	10.000	2.00E-4	0.0015	<LOQ	<LOQ
Delta-8 THC	10.000	2.60E-5	0.0015	<LOQ	<LOQ
Delta-8 THC-O Acetate	10.000	2.70E-5	0.003	<LOQ	<LOQ
Delta-8 THCV	10.000	4.00E-5	0.0015	<LOQ	<LOQ
Delta-9 THC	10.000	1.30E-5	0.0015	<LOQ	<LOQ
Delta-9 THC-O Acetate	10.000	7.70E-5	0.003	<LOQ	<LOQ
Delta8-THCP *	10.000	3.75E-4	0.0015	<LOQ	<LOQ
Delta9-THCP *	10.000	1.17E-5	0.0012	<LOQ	<LOQ
Exo-THC	10.000	2.30E-4	0.0015	<LOQ	<LOQ
THCA-A	10.000	3.20E-5	0.0015	<LOQ	<LOQ
THCB *	10.000	1.80E-4	0.00195	<LOQ	<LOQ
THCH *	10.000	3.50E-4	0.00195	<LOQ	<LOQ
THCV	10.000	7.00E-6	0.0015	<LOQ	<LOQ
THCVA	10.000	4.70E-5	0.0015	<LOQ	<LOQ
Total Active CBD	1000.000			8.805	0.881
Total Active THC	1000.000			<LOQ	<LOQ

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Aixia Sun Lab Director/Principal Scientist
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Definitions and Abbreviations used in this report: Total Active CBD = CBD + (CBD-A * 0.877), *Total CBDV = CBDV + (CBDVA * 0.87), Total Active THC = THCA-A * 0.877 + Delta 9 THC, Total THC = THCV + (THCVA * 0.87), CBG Total = (CBGA * 0.877) + CBG, CBN Total = (CBNA * 0.877) + CBN, Total CBC = CBC + (CBCA * 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Total THCP = Delta8-THCP + Delta9-THCP, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta8-THC + Delta9-THC + Total CBN + CBT + CBE + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate + Total THCP. (mg/ml) = Milligram per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = Water Activity, (mg/Kg) = Milligram per Kilogram, ACS uses simple acceptance criteria. Passed - Analyte/microbe is not detected or is at the level below the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034. Failed - Analyte/microbe is at the level that equal or above the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034 Sample not received via laboratory sampling.

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Listeria Monocytogenes
Specimen Weight: 1019.700 mg

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g

Passed
SOP13.032 (qPCR)

Pathogenic Microbiology SAE (MicroArray)

Specimen Weight: 1041.100 mg

Dilution Factor: 1.000

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus terreus	Absence in 1g
Aspergillus fumigatus	Absence in 1g	Salmonella	Absence in 1g
Aspergillus niger	Absence in 1g	STEC E. Coli	Absence in 1g

Passed
SOP13.019 (Micro Array)

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Heavy Metals
Specimen Weight: 248.600 mg

Passed
SOP13.048 (ICP-MS)

Dilution Factor: 201

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	4.83	100	1500	<LOQ	Lead (Pb)	11.76	100	500	<LOQ
Cadmium (Cd)	.64	100	500	<LOQ	Mercury (Hg)	.58	100	3000	<LOQ

Mycotoxins
Specimen Weight: 609.100 mg

Passed
SOP13.007 (LCMS)

Dilution Factor: 2.460

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ	Aflatoxin G2	2.7100E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ	Ochratoxin A	7.5400E-1	3.8	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ					

Residual Solvents - FL (CBD)
Specimen Weight: 10.800 mg

Passed
SOP13.039 (GCMS)

Dilution Factor: 1.000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.0094	0.16	8	<LOQ	Heptane	0.0013	1.39	5000	<LOQ
1,2-Dichloroethane	0.0003	0.04	5	<LOQ	Hexane	0.068	1.17	290	<LOQ
Acetone	0.015	2.08	5000	<LOQ	Isopropyl alcohol	0.0048	1.39	500	<LOQ
Acetonitrile	0.06	1.17	410	<LOQ	Methanol	0.0005	0.69	3000	<LOQ
Benzene	0.0002	0.02	2	<LOQ	Methylene chloride	0.0029	2.43	600	<LOQ
Butanes	0.4167	2.5	2000	<LOQ	Pentane	0.037	2.08	5000	<LOQ
Chloroform	0.0001	0.04	60	<LOQ	Propane	0.031	5.83	2100	<LOQ
Ethanol	0.0021	2.78	5000	43.423	Toluene	0.0009	2.92	890	<LOQ
Ethyl Acetate	0.0012	1.11	5000	<LOQ	Total Xylenes	0.0001	2.92	2170	<LOQ
Ethyl Ether	0.0049	1.39	5000	<LOQ	Trichloroethylene	0.0014	0.49	80	<LOQ
Ethylene Oxide	0.0038	0.1	5	<LOQ					

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Pesticides
Specimen Weight: 609.100 mg

Passed
SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.460

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	300	<LOQ	Fludioxonil	1.7400E+0	48	3000	<LOQ
Acephate	2.3000E-2	30	3000	<LOQ	Hexythiazox	4.9000E-2	30	2000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazail	2.4800E-1	30	100	<LOQ
Acetamiprid	5.2000E-2	30	3000	<LOQ	Imidacloprid	9.4000E-2	30	3000	<LOQ
Aldicarb	2.6000E-2	30	100	<LOQ	Kresoxim Methyl	4.2000E-2	30	1000	<LOQ
Azoxystrobin	8.1000E-2	10	3000	<LOQ	Malathion	8.2000E-2	30	2000	<LOQ
Bifenazate	1.4150E+0	30	3000	<LOQ	Metalaxyl	8.1000E-2	10	3000	<LOQ
Bifenthrin	4.3000E-2	30	500	<LOQ	Methiocarb	3.2000E-2	30	100	<LOQ
Boscalid	5.5000E-2	10	3000	<LOQ	Methomyl	2.2000E-2	30	100	<LOQ
Captan	6.1200E+0	30	3000	<LOQ	methyl-Parathion	1.7100E+0	10	100	<LOQ
Carbaryl	2.2000E-2	10	500	<LOQ	Mevinphos	2.1500E+0	10	100	<LOQ
Carbofuran	3.4000E-2	10	100	<LOQ	Myclobutanil	1.0290E+0	30	3000	<LOQ
Chlorantraniliprole	3.3000E-2	10	3000	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chlordane	1.0000E+1	10	100	<LOQ	Oxamyl	2.5000E-2	30	500	<LOQ
Chlorfenapyr	3.4000E-2	30	100	<LOQ	Pacllobutrazol	6.5000E-2	30	100	<LOQ
Chloromequat Chloride	1.0800E-1	10	3000	<LOQ	Pentachloronitrobenzene	1.3200E+0	10	200	<LOQ
Chlorpyrifos	3.5000E-2	30	100	<LOQ	Pemethrin	3.4300E-1	30	1000	<LOQ
Clofentazine	1.1900E-1	30	500	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Coumaphos	3.7700E+0	48	100	<LOQ	Piperonylbutoxide	2.9000E-2	30	3000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	400	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	1000	<LOQ
Daminozide	8.8500E-1	30	100	<LOQ	Propoxur	4.6000E-2	30	100	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	3000	<LOQ
Dimethoate	2.1000E-2	30	100	<LOQ	Spinetoram	8.0000E-2	10	3000	<LOQ
Dimethomorph	5.8300E+0	48	3000	<LOQ	Spinosad	8.8000E-2	30	3000	<LOQ
Ethoprophos	3.6000E-1	30	100	<LOQ	Spiromesifen	2.6100E-1	30	3000	<LOQ
Etofenprox	1.1600E-1	30	100	<LOQ	Spirotetramat	8.9000E-2	30	3000	<LOQ
Etoxazole	9.5000E-2	30	1500	<LOQ	Spiroxamine	1.3100E-1	30	100	<LOQ
Fenhexamid	5.1000E-1	10	3000	<LOQ	Tebuconazole	6.7000E-2	30	1000	<LOQ
Fenoxycarb	1.0700E-1	30	100	<LOQ	Thiacloprid	6.4000E-2	30	100	<LOQ
Fenpyroximate	1.3800E-1	30	2000	<LOQ	Thiamethoxam	5.0000E-2	30	1000	<LOQ
Fipronil	1.0700E-1	30	100	<LOQ	Trifloxystrobin	3.7000E-2	30	3000	<LOQ
Flonicamid	5.1700E-1	30	2000	<LOQ					

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