

3903 Fortune Blvd
Saginaw, MI 48603
Email: tox@mitoxicology.com
Phone: 989.502.2233

Certificate of Analysis

Adult Use License #: AU-SC-000132

Medical License #: SC-000036

Sample ID: SAM-1258

Sample Name: GMO

Sample Matrix: Raw Plant Material

Sample Type: Raw Plant Material

Sample Date: 06/18/2024

Metric Batch No: 1A405030003A662000000674

Metric Test Sample Pkg: 1A405030003A662000000675

Batch/Sample Size: 16350 / 81.81 grams

Client Name: Havi Consortium LLC

33842 88th Ave

Lawton, MI 49065

Phone: None

License Number: AU-G-C-001083



Producer Name: Havi Consortium LLC

Producer License No: AU-G-C-001083

Product Type: Adult-Use

Producer: Cultivator

Potency By: HPLC 1 Date Complete: 06/21/24

Analyte	mg/g	%	LOD/LOQ (mg/g)	Comments
CBDV	0.097	0.010	0.006/0.040	
THCV	<LOQ	<LOQ	0.006/0.040	
CBD	1.230	0.123	0.006/0.040	
CBG	0.846	0.085	0.006/0.040	
CBDA	0.539	0.054	0.005/0.040	
CBGA	10.632	1.063	0.006/0.040	
CBN	<LOQ	<LOQ	0.006/0.040	
9-THC	7.943	0.794	0.004/0.040	
8-THC	0.075	0.007	0.006/0.040	
CBC	0.655	0.065	0.006/0.040	
THCA	330.727	33.073	0.007/0.040	

Totals	Result (mg/g)	Result (%)
Total THC	298.065	29.807
Total CBD	1.702	0.170



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Total Cannabinoids 310.748 31.075

Total THC = Mass($\Delta 8$ THC) + Mass ($\Delta 9$ THC) + [0.877 x Mass($\Delta 9$ THCA)]

Total CBD = Mass(CBD) + [0.877 x Mass (CBDA)]

Microbials - Qualitative By: qPCR Date Complete: 06/20/24

Analyte	Result (CFU/g)	Action Limit	Status	Comments
Shiga toxin-producing E.coli (STEC)	Not Detected	Not Detected in 1 gram	PASS	
Salmonella specific gene	Not Detected	Not Detected in 1 gram	PASS	
Aspergillus spp	Not Detected	Not Detected in 1 gram	PASS	
Aspergillus flavus	Not Detected	Not Detected in 1 gram	PASS	
Aspergillus fumigatus	Not Detected	Not Detected in 1 gram	PASS	
Aspergillus niger	Not Detected	Not Detected in 1 gram	PASS	
Aspergillus terreus	Not Detected	Not Detected in 1 gram	PASS	

Microbials - Quantitative By: Petrifilm Date Complete: 06/21/24

Analytes	Result (CFU/g)	Action Limit (CFU/G)	Status	Comments
Total Yeast & Mold	ND	100000	PASS	
Total Coliform	ND	1000	PASS	

Chemical Residue by LCMS By: LCMSMS 1 Date Complete: 06/20/24

Analyte	Result (ppm)	LOD (ppm)	LOQ (ppm)	Action Limit (ppm)	Status	Comments
Abamectin	ND	0.025	0.050	0.500	PASS	
Acephate	ND	0.025	0.050	0.400	PASS	
Acequinocyl	ND	0.025	0.050	2.000	PASS	
Acetamiprid	ND	0.025	0.050	0.200	PASS	
Aldicarb	ND	0.025	0.050	0.400	PASS	
Azoxystrobin	ND	0.025	0.050	0.200	PASS	
Bifenazate	ND	0.025	0.050	0.200	PASS	



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Bifenthrin	ND	0.025	0.050	0.200	PASS
Boscalid	ND	0.025	0.050	0.400	PASS
Carbaryl	ND	0.025	0.050	0.200	PASS
Carbofuran	ND	0.025	0.050	0.200	PASS
Chlorantraniliprole	ND	0.025	0.050	0.200	PASS
Chlorpyrifos	ND	0.025	0.050	0.200	PASS
Clofentezine	ND	0.025	0.050	0.200	PASS
Daminozide	ND	0.025	0.050	1.000	PASS
DDVP (Dichlorvos)	ND	0.025	0.050	1.000	PASS
Diazinon	ND	0.025	0.050	0.200	PASS
Dimethoate	ND	0.025	0.050	0.200	PASS
Ethoprophos	ND	0.025	0.050	0.200	PASS
Etofenprox	ND	0.025	0.050	0.400	PASS
Etoxazole	ND	0.025	0.050	0.200	PASS
Fenoxycarb	ND	0.025	0.050	0.200	PASS
Fenpyroximate	ND	0.025	0.050	0.400	PASS
Fipronil	ND	0.025	0.050	0.400	PASS
Flonicamid	ND	0.025	0.050	1.000	PASS
Fludioxonil	ND	0.025	0.050	0.400	PASS
Hexythiazox	ND	0.025	0.050	1.000	PASS
Imazalil	ND	0.025	0.050	0.200	PASS
Imidacloprid	ND	0.025	0.050	0.400	PASS
Kresoxim Methyl	ND	0.025	0.050	0.400	PASS
Malathion	ND	0.025	0.050	0.200	PASS
Metalaxyl	ND	0.025	0.050	0.200	PASS
Methiocarb	ND	0.025	0.050	0.200	PASS
Methomyl	ND	0.025	0.050	0.400	PASS



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MGK-264	ND	0.025	0.050	0.200	PASS
Myclobutanil	ND	0.025	0.050	0.200	PASS
Naled	ND	0.005	0.050	0.500	PASS
Oxamyl	ND	0.025	0.050	1.000	PASS
Paclobutrazol	ND	0.025	0.050	0.400	PASS
Permethrin*	ND	0.025	0.050	0.200	PASS
Phosmet	ND	0.025	0.050	0.200	PASS
Prallethrin	ND	0.025	0.050	0.200	PASS
Propiconazole	ND	0.025	0.050	0.400	PASS
Propoxur	ND	0.025	0.050	0.200	PASS
Pyrethrins**	ND	0.015	0.029	1.000	PASS
Pyridaben	ND	0.019	0.050	0.200	PASS
Spinosad	ND	0.025	0.050	0.200	PASS
Spiromesifen	ND	0.025	0.050	0.200	PASS
Spirotetramat	ND	0.025	0.050	0.200	PASS
Spiroxamine	ND	0.025	0.050	0.400	PASS
Tebuconazole	ND	0.025	0.050	0.400	PASS
Thiacloprid	ND	0.025	0.050	0.200	PASS
Thiamethoxam	ND	0.025	0.050	0.200	PASS
Trifloxystrobin	ND	0.025	0.050	0.200	PASS

*Permethrins are measured as a cumulative residue of cis- and trans-permethrin isomers

**Pyrethrins are measured as a cumulative residue of Pyrethrin 1, Cinerin 1, and Jasmolin 1

Chemical Residue by GCMS By: GCMSMS 3 Date Complete: 06/20/24

Analyte	Result (ppm)	LOD (ppm)	LOQ (ppm)	Action Limit (ppm)	Status	Comments
Chlorfenapyr	ND	0.00021	0.050	1.000	PASS	
Cyfluthrin	ND	0.00005	0.050	1.000	PASS	



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Cypermethrin	ND	0.00014	0.050	1.000	PASS
Methylparathion	ND	0.00005	0.050	0.200	PASS

Heavy Metals By: ICP-MS Date Complete: 06/21/24

Analyte	Result (ppm)	LOD (ppm)	LOQ (ppm)	Action Limit (ppm)	Status	Comments
Total Chromium	<LOQ	0.005	0.050	1.200	Pass	
Nickel	<LOQ	0.005	0.050	1.000	Pass	
Inorganic Arsenic	0.110	0.003	0.050	0.400	Pass	
Cadmium	0.055	0.003	0.050	0.400	Pass	
Mercury	ND	0.001	0.010	0.200	Pass	
Lead	ND	0.001	0.050	1.000	Pass	

Foreign Matter Inspection By: Scope Date Complete: 06/19/24

Analyte	Result (%)	Limit (%)	Status	Comments
Inorganic Matter	ND	Any	PASS	
Organic Matter	ND	2	PASS	
Stems	ND	5	PASS	

Water Activity By: Water Activity Meter Date Complete: 06/19/24

Analyte	Result	Limit	Status	Comment
Aw	0.541	0.65	PASS	

Terpene By: GCMS 1 Date Complete: 06/20/24

Analyte	Result (mg/g)	Result (%)	LOD (ug/g)	LOQ (ug/g)	Action Limit	Status	Comments
Total Terpenes	27.657	2.765			N/A	N/A	
a-Pinene	1.172	0.117	41.25	125	N/A	N/A	
Camphene	0.290	0.029	41.25	125	N/A	N/A	



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B-Pinene	1.420	0.142	41.25	125	N/A	N/A
B-Myrcene	4.567	0.457	41.25	125	N/A	N/A
trans-Beta-Ocimene	ND	0.001	14.03	42.5	N/A	N/A
γ-Terpineol	0.308	0.031	9.03	125	N/A	N/A
Limonene	8.841	0.884	41.25	125	N/A	N/A
α-Terpineol	0.920	0.092	29.11	88.2	N/A	N/A
Camphor	ND	ND	41.25	125	N/A	N/A
Terpinolene	<LOQ	<LOQ	41.25	125	N/A	N/A
Linalool	0.489	0.049	41.25	125	N/A	N/A
Isopulegol	2.151	0.215	41.25	125	N/A	N/A
Nerol	ND	ND	41.25	250	N/A	N/A
Geraniol	ND	ND	41.25	125	N/A	N/A
Pulegone	ND	ND	41.25	125	N/A	N/A
E-Caryophyllene	5.202	0.520	41.25	125	N/A	N/A
α-Humulene	1.442	0.144	41.25	125	N/A	N/A
Valencene	ND	ND	41.25	125	N/A	N/A
Nerolidol	<LOQ	<LOQ	41.25	125	N/A	N/A
Guaiol	ND	ND	41.25	125	N/A	N/A
Carophyllene Oxide	<LOQ	<LOQ	41.25	125	N/A	N/A
α-Bisabolol	0.855	0.085	41.25	125	N/A	N/A
Eucalyptol	ND	ND	41.25	125	N/A	N/A
Sabinene	ND	ND	41.25	125	N/A	N/A
Sabinene Hydrate	ND	ND	41.25	125	N/A	N/A
Endo-Fenchyl Alcohol	ND	ND	41.25	125	N/A	N/A
Isoborneol	ND	ND	41.25	125	N/A	N/A
Menthol	ND	ND	41.25	125	N/A	N/A
[+/-]-Borneol	<LOQ	<LOQ	82.5	125	N/A	N/A



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a-Cedrene	ND	ND	41.25	125	N/A	N/A
Geranyl Acetate	ND	ND	41.25	125	N/A	N/A
Cedrol	ND	ND	41.25	125	N/A	N/A
Farnesene	ND	ND	41.25	25	N/A	N/A
delta-3-Carene	ND	ND	41.25	125	N/A	N/A
[+/-]-Fenchone	ND	ND	41.25	125	N/A	N/A
cis-Beta-Ocimene	ND	ND	27.23	82.5	N/A	N/A
γ-Terpinene	ND	ND	41.25	125	N/A	N/A
α-Terpinene	ND	ND	41.25	125	N/A	N/A



James M Ladd II
Lab Director
Michigan Institute of Toxicology
06/21/2024



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