

CERTIFICATE OF ANALYSIS

Sample Name: Corbin Test
Steep Hill ID: AR69685
Batch ID:
State ID:
Sample Type: Concentrate
Date Received: 7/1/2019
Date Reported: 7/2/2019

Customer: Kat's Naturals
5876 SR 28
Dunlap, TN 37327
LIC.# Hemp - Kat's Naturals

Cannabinoid Results – Standard Potency 7/1/2019
Standard potency analysis utilizing Ultra High Performance Liquid Chromatography (UHPLC; SOP-068-AR)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g
CBD	87	870	0.109	0.36
CBDA	ND	ND	0.107	0.36
THC	ND	ND	0.121	0.40
THCA	ND	ND	0.052	0.172
Total	87	870		

Total THC	Total CBD
Not Detected	87 %
Not Detected	870 mg/g

Cannabinoid Results – Extended Cannabinoids NT
Extended cannabinoid analysis utilizing Ultra High Performance Liquid Chromatography (UHPLC; SOP-068-AR)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g
CBC	NT	NT	NT	NT
CBD	NT	NT	NT	NT
CBDA	NT	NT	NT	NT
CBDV	NT	NT	NT	NT
CBG	NT	NT	NT	NT
CBGA	NT	NT	NT	NT
CBN	NT	NT	NT	NT
THC	NT	NT	NT	NT
Δ8-THC	NT	NT	NT	NT
THCA	NT	NT	NT	NT
THCV	NT	NT	NT	NT
Total	NT	NT	NT	NT


Moisture Results NT
Moisture content analysis utilizing Moisture Balance (MB; SOP-055-AR)

Analyte	%
Moisture	NT

Water Activity Results NT
Water activity analysis utilizing Water Activity Meter (WAM; SOP-059-AR) - **Limit units: Aw**

Analyte	Pass/Fail	Aw	Limit
Water Activity		NT	NT

LOD: Limit of Detection
LOQ: Limit of Quantitation
NT: Not Tested
ND: Not Detected



Brandon Thornton
Pharm D. Co-Owner & CEO
Date: 7/2/2019

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Residual Pesticides Results

NT

 Residual pesticide analysis utilizing Liquid and Gas Chromatography – Mass Spectrometry (LC-MSMS + GC-MSMS);
 SOP-070-AR + SOP-073-AR) - **Limit units: ug/g = ppm**

Analyte	Pass/Fail	µg/g	Limit	LOD µg/g	LOQ µg/g	Analyte	Pass/Fail	µg/g	Limit	LOD µg/g	LOQ µg/g
Abamectin	NT	NT	NT	NT	NT	Imazailil	NT	NT	NT	NT	NT
Acephate	NT	NT	NT	NT	NT	Imidacloprid	NT	NT	NT	NT	NT
Acequinocyl	NT	NT	NT	NT	NT	Kresoxim-methyl	NT	NT	NT	NT	NT
Acetamiprid	NT	NT	NT	NT	NT	Malathion	NT	NT	NT	NT	NT
Aldicarb	NT	NT	NT	NT	NT	Metalaxyl	NT	NT	NT	NT	NT
Azoxystrobin	NT	NT	NT	NT	NT	Methiocarb	NT	NT	NT	NT	NT
Bifenazate	NT	NT	NT	NT	NT	Methomyl	NT	NT	NT	NT	NT
Bifenthrin	NT	NT	NT	NT	NT	Methyl Parathion	NT	NT	NT	NT	NT
Boscalid	NT	NT	NT	NT	NT	MGK-264	NT	NT	NT	NT	NT
Carbaryl	NT	NT	NT	NT	NT	Myclobutanil	NT	NT	NT	NT	NT
Carbofuran	NT	NT	NT	NT	NT	Naled	NT	NT	NT	NT	NT
Chlorantraniliprole	NT	NT	NT	NT	NT	Oxamyl	NT	NT	NT	NT	NT
Chlorfenapyr	NT	NT	NT	NT	NT	Paclobutrazol	NT	NT	NT	NT	NT
Chlorpyrifos	NT	NT	NT	NT	NT	Permethrins	NT	NT	NT	NT	NT
Clofentezine	NT	NT	NT	NT	NT	Phosmet	NT	NT	NT	NT	NT
Cyfluthrin	NT	NT	NT	NT	NT	Piperonyl Butoxide	NT	NT	NT	NT	NT
Cypermethrin	NT	NT	NT	NT	NT	Prallethrin	NT	NT	NT	NT	NT
Daminozide	NT	NT	NT	NT	NT	Propiconazole	NT	NT	NT	NT	NT
Diazinon	NT	NT	NT	NT	NT	Propoxur	NT	NT	NT	NT	NT
DDVP (Dichlorvos)	NT	NT	NT	NT	NT	Pyrethrins	NT	NT	NT	NT	NT
Dimethoate	NT	NT	NT	NT	NT	Pyridaben	NT	NT	NT	NT	NT
Ethoprophos	NT	NT	NT	NT	NT	Spinosad	NT	NT	NT	NT	NT
Etofenprox	NT	NT	NT	NT	NT	Spiromesifen	NT	NT	NT	NT	NT
Etoxazole	NT	NT	NT	NT	NT	Spirotetramat	NT	NT	NT	NT	NT
Fenoxycarb	NT	NT	NT	NT	NT	Spiroxamine	NT	NT	NT	NT	NT
Fenpyroximate	NT	NT	NT	NT	NT	Tebuconazole	NT	NT	NT	NT	NT
Fipronil	NT	NT	NT	NT	NT	Thiacloprid	NT	NT	NT	NT	NT
Fonicamid	NT	NT	NT	NT	NT	Thiamethoxam	NT	NT	NT	NT	NT
Fludioxonil	NT	NT	NT	NT	NT	Trifloxystrobin	NT	NT	NT	NT	NT
Hexythiazox	NT	NT	NT	NT	NT						

Microbial Impurities Results

NT

 Microbiological screening utilizing 3M Petrifilm (SOP-700-AR) - **Limit units: CFU/g**

Analyte	Pass/Fail	Result	Limit	LOQ
Coliform	NT	NT	NT	NT
General E. coli	NT	NT	NT	NT

Heavy Metals Results

Pass

7/2/2019

 Heavy metals analysis utilizing Inductively Coupled Plasma Mass Spectrometry (ICP-MS; SOP-072-AR) - **Limit units: µg/kg**

Analyte	Pass/Fail	µg/kg	Limit	LOD µg/kg	LOQ µg/kg
Arsenic	Pass	ND	200	1.60	5.4
Cadmium	Pass	4.0	200	0.52	1.75
Lead	Pass	11.4	500	1.39	4.6
Mercury	Pass	ND	100	0.86	2.9

Terpenoid Results - Standard Terpenes

NT

Standard terpene analysis utilizing Gas Chromatography – Mass Spectrometry (GC-MS; SOP-069-AR)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g
Caryophyllene Oxide	NT	NT	NT	NT
β-Caryophyllene	NT	NT	NT	NT
α-Humulene	NT	NT	NT	NT
Limonene	NT	NT	NT	NT
Linalool	NT	NT	NT	NT
β-Myrcene	NT	NT	NT	NT
α-Pinene	NT	NT	NT	NT
β-Pinene	NT	NT	NT	NT
Terpinolene	NT	NT	NT	NT
Total	NT	NT	NT	NT



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Terpenoid Results - Extended Terpenes

NT

Extended terpene analysis utilizing Gas Chromatography – Mass Spectrometry (GC-MS; SOP-069-AR)

Analyte	%	mg/g	LOD mg/g	LOQ mg/g	Analyte	%	mg/g	LOD mg/g	LOQ mg/g
α-Bisabolol	NT	NT	NT	NT	Linalool	NT	NT	NT	NT
endo-Borneol	NT	NT	NT	NT	Menthol	NT	NT	NT	NT
Camphene	NT	NT	NT	NT	β-Myrcene	NT	NT	NT	NT
Camphor	NT	NT	NT	NT	Nerol	NT	NT	NT	NT
3-Carene	NT	NT	NT	NT	cis-Nerolidol	NT	NT	NT	NT
Caryophyllene Oxide	NT	NT	NT	NT	trans-Nerolidol	NT	NT	NT	NT
β-Caryophyllene	NT	NT	NT	NT	cis-β-Ocimene	NT	NT	NT	NT
α-Cedrene	NT	NT	NT	NT	trans-β-Ocimene	NT	NT	NT	NT
Cedrol	NT	NT	NT	NT	α-Phellandrene	NT	NT	NT	NT
Eucalyptol	NT	NT	NT	NT	α-Pinene	NT	NT	NT	NT
β-Farnesene	NT	NT	NT	NT	β-Pinene	NT	NT	NT	NT
Fenchol	NT	NT	NT	NT	Pulegone	NT	NT	NT	NT
Fenchone	NT	NT	NT	NT	Sabinene	NT	NT	NT	NT
Geraniol	NT	NT	NT	NT	Sabinene Hydrate	NT	NT	NT	NT
Geranyl Acetate	NT	NT	NT	NT	α-Terpinene	NT	NT	NT	NT
Guaiol	NT	NT	NT	NT	γ-Terpinene	NT	NT	NT	NT
α-Humulene	NT	NT	NT	NT	Terpineol	NT	NT	NT	NT
Isoborneol	NT	NT	NT	NT	Terpinolene	NT	NT	NT	NT
Isopulegol	NT	NT	NT	NT	Valencene	NT	NT	NT	NT
Limonene	NT	NT	NT	NT	Total	NT	NT	NT	NT

Residual Solvents Results

Pass

7/2/2019

Residual solvents and processing chemicals analysis utilizing Headspace Gas Chromatography – Mass Spectrometry (HS-GC-MS; SOP-010-AR) - Limit units: µg/g

Analyte	Pass/Fail	µg/g	Limit	LOD µg/g	LOQ µg/g	Analyte	Pass/Fail	µg/g	Limit	LOD µg/g	LOQ µg/g
1-Butanol	Pass	ND	5000	15.9	53	Dimethyl Sulfoxide	Pass	ND	5000	13.8	46
1-Pentanol	Pass	ND	5000	27	88	Ethanol	Pass	ND	5000	19.3	64
1-Propanol	Pass	ND	5000	40	132	Ethyl Acetate	Pass	ND	5000	6.9	23
1,2-Dimethoxyethane	Pass	ND	100	21	71	Ethyl Ether	Pass	ND	5000	2.4	8.1
1,4-Dioxane	Pass	ND	380	21	69	Ethylene Glycol	Pass	ND	620	2.3	7.6
2-Butanol	Pass	ND	5000	20	67	Ethylene Oxide	Pass	ND	50	1.60	5.3
2-Butanone	Pass	ND	5000	11.1	37	Heptane	Pass	ND	5000	8.8	29
2-Ethoxyethanol	Pass	ND	160	14.9	50	n-Hexane	Pass	ND	290	2.5	8.4
2-Methylbutane	Pass	< LOQ	5000	1.91	6.4	Isopropyl Acetate	Pass	ND	5000	12.0	40
2-Methylpentane	Pass	ND	290	2.3	7.6	Methanol	Pass	ND	3000	8.6	29
2-Propanol (IPA)	Pass	ND	5000	28	91	Methylpropane	Pass	ND	5000	2.3	7.7
2,2-Dimethylbutane	Pass	ND	290	4.2	14.2	N,N-Dimethylacetamide	Pass	ND	1090	16.1	54
2,3-Dimethylbutane	Pass	ND	290	1.85	6.2	N,N-Dimethylformamide	Pass	ND	880	22	73
3-Methylpentane	Pass	ND	290	2.3	7.8	Pentane	Pass	480	5000	2.0	6.7
Acetone	Pass	ND	5000	44	148	Propane	Pass	ND	5000	2.3	7.6
Acetonitrile	Pass	ND	410	18.0	54	Pyridine	Pass	ND	200	13.3	44
Benzene	Pass	ND	2	0.41	1.35	Sulfolane	Pass	ND	160	8.0	27
Butane	Pass	ND	5000	1.82	6.1	Tetrahydrofuran	Pass	ND	720	9.4	31
Cumene	Pass	ND	70	7.9	26	Toluene	Pass	ND	890	21	70
Cyclohexane	Pass	ND	3880	4.8	16.1	Xylenes	Pass	ND	2170	29	96
Dichloromethane	Pass	ND	600	2.0	6.8						



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