

Hemp Quality Assurance Testing

CERTIFICATE OF ANALYSIS

DATE ISSUED 06/19/2022

SAMPLE NAME: 500mg/30ml Oil Vial

Infused, Non-Inhalable

CULTIVATOR / MANUFACTURER

Business Name: License Number:

Address:

SAMPLE DETAIL

Batch Number: 184600 Sample ID: 220616Y007 **DISTRIBUTOR / TESTED FOR**

Business Name: Ontogen Botanicals

License Number:

Address:

Date Collected: 06/16/2022 Date Received: 06/16/2022

Batch Size:

Sample Size: 1.0 units

Unit Mass: 30 grams per Unit

Serving Size:







Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 19.080 mg/unit

Total CBD: 588.150 mg/unit

Total Cannabinoids: 648.870 mg/unit

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

Total THC = Δ^9 -THC + (THCa (0.877)) Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids = Δ^9 -THC + THCa + CBD + CBDa + CBG + CBGa + Sum of Cannabinoids: 648.870 mg/unit THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ^8 -THC + CBL + CBN Total Cannabinoids = $(\Delta^9$ -THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) +

 $(CBDV+0.877*CBDVa) + \Delta^{8}-THC + CBL + CBN$

Density: 0.9471 g/mL

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.047%

 β -Caryophyllene 0.191 mg/g

α-Bisabolol 0.127 mg/g

 α -Humulene 0.071 mg/g

SAFETY ANALYSIS - SUMMARY

 Δ^9 -THC per Unit: \bigcirc PASS Residual Solvents: PASS

Pesticides: PASS

Heavy Metals: PASS

Mycotoxins: PASS

Microbiology (PCR): PASS

Foreign Material: PASS

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

Date: 06/19/2022

oved by: Josh Wurzer, President

SC Laboratories California LLC. | 100 Pioneer Street, Suite E, Santa Cruz, CA 95060 | 866-435-0709 | sclabs.com | C8-0000013-LIC | ISO/IES 17025:2017 PJLA Accreditation Number 87168 © 2022 SC Labs all rights reserved. Trademarks referenced are trademarks of either SC Labs or their respective owners. MKT0002 REV9 2/22 CoA ID: 220616Y007-001 Summary Page



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Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: 19.080 mg/unit Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: 588.150 mg/unit

Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDS: 648.870 mg/unit

 $\begin{array}{l} Total\ Cannabinoids\ (Total\ THC)+(Total\ CBD)+(Total\ CBG)+(Total\ THCV)+(Total\ CBC)+(Total\ CBDV)+\Delta^8-THC+CBL+CBN \end{array}$

TOTAL CBG: 18.360 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 19.590 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 2.250 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 06/18/2022

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.7313	19.605	1.9605
СВС	0.003 / 0.010	±0.0210	0.653	0.0653
∆ ⁹ -THC	0.002/0.014	±0.0349	0.636	0.0636
CBG	0.002 / 0.006	±0.0297	0.612	0.0612
CBDV	0.002/0.012	±0.0031	0.075	0.0075
CBL	0.003 / 0.010	±0.0011	0.029	0.0029
CBN	0.001 / 0.007	±0.0005	0.019	0.0019
Δ^8 -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002/0.012	N/A	ND	ND
THCVa	0.002/0.019	N/A	ND	ND
CBDa	0.001 / 0.026	N/A	ND	ND
CBDVa	0.001 / 0.018	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
SUM OF CANNAB	INOIDS		21.629 mg/g	2.1629%

Unit Mass: 30 grams per Unit

Δ^9 -THC per Unit	1100 per-package limit	19.080 mg/unit	PASS
Total THC per Unit		19.080 mg/unit	
CBD per Unit		588.150 mg/unit	
Total CBD per Unit		588.150 mg/unit	
Sum of Cannabinoids per Unit		648.870 mg/unit	
Total Cannabinoids per Unit		648.870 mg/unit	

DENSITY TEST RESULT

0.9471 g/mL

Tested 06/18/2022

Method: QSP 7870 - Sample

Preparation



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Terpenoid Analysis

Terpene analysis utilizing gas chromatographyflame ionization detection (GC-FID).

Method: QSP 1192 - Analysis of Terpenoids by GC-FID



β-Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.



α-Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.



α -Humulene

Also known as α -caryophyllene, it is an isomer of the sesquiterpene β -Caryophyllene which frequently occurs in nature with many aromatic plants across the globe. It has a fragrance that can be described as earthy or musky with spicy undertones. Found in hops, forskohlii, skullcaps, basil, nutmeg, cloves, sage, cotton, tamarind, black pepper, guava, Scotch pine...etc.

TERPENOID TEST RESULTS - 06/19/2022

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β-Caryophyllene	0.004 / 0.012	±0.0053	0.191	0.0191
α -Bisabolol	0.008 / 0.026	±0.0053	0.127	0.0127
α -Humulene	0.009 / 0.029	±0.0018	0.071	0.0071
Caryophyllene Oxide	0.010 / 0.033	±0.0016	0.046	0.0046
Guaiol	0.009/0.030	±0.0013	0.035	0.0035
Terpineol	0.009 / 0.031	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Nerolidol	0.006 / 0.019	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
α-Pinene	0.005 / 0.017	N/A	ND	ND
Camphene	0.005 / 0.015	N/A	ND	ND
Sabinene	0.004 / 0.014	N/A	ND	ND
β-Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α-Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ^3 -Carene	0.005 / 0.018	N/A	ND	ND
α-Terpinene	0.005 / 0.017	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Limonene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β-Ocimene	0.006 / 0.020	N/A	ND	ND
γ-Terpinene	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Fenchone	0.009 / 0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	N/A	ND	ND
Linalool	0.009 / 0.032	N/A	ND	ND
Fenchol	0.010 / 0.034	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Isoborneol	0.004 / 0.012	N/A	ND	ND
Borneol	0.005 / 0.016	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
Nerol	0.003 / 0.011	N/A	ND	ND
Citronellol	0.003 / 0.010	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α-Cedrene	0.005 / 0.016	N/A	ND	ND
trans-β-Farnesene	0.008 / 0.025	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
TOTAL TERPENOIDS			0.470 mg/g	0.047%



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Pesticide Analysis

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

*GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

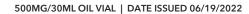
PESTICIDE TEST RESULTS - 06/18/2022 **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (μg/g)	RESULT
Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Acephate	0.02 / 0.07	5	N/A	ND	PASS
Acequinocyl	0.02 / 0.07	4	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	5	N/A	ND	PASS
Aldicarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	40	N/A	ND	PASS
Bifenazate	0.01 / 0.04	5	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	0.5	N/A	ND	PASS
Boscalid	0.03 / 0.09	10	N/A	ND	PASS
Captan	0.19 / 0.57	5	N/A	ND	PASS
Carbaryl	0.02 / 0.06	0.5	N/A	ND	PASS
Carbofuran	0.02 / 0.05	≥LOD	N/A	ND	PASS
Chlorantraniliprole	0.04 / 0.12	40	N/A	ND	PASS
Chlordane*	0.03 / 0.08	≥LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Clofentezine	0.03 / 0.09	0.5	N/A	ND	PASS
Coumaphos	0.02 / 0.07	≥LOD	N/A	ND	PASS
Cyfluthrin	0.12 / 0.38	1	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Daminozide	0.02 / 0.07	≥LOD	N/A	ND	PASS
Diazinon	0.02 / 0.05	0.2	N/A	ND	PASS
Dichlorvos (DDVP)	0.03 / 0.09	≥LOD	N/A	ND	PASS
Dimethoate	0.03 / 0.08	≥LOD	N/A	ND	PASS
Dimethomorph	0.03 / 0.09	20	N/A	ND	PASS
Ethoprophos	0.03 / 0.10	≥LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.06	≥LOD	N/A	ND	PASS
Etoxazole	0.02 / 0.06	1.5	N/A	ND	PASS
Fenhexamid	0.03 / 0.09	10	N/A	ND	PASS
Fenoxycarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Fenpyroximate	0.02 / 0.06	2	N/A	ND	PASS
Fipronil	0.03 / 0.08	≥LOD	N/A	ND	PASS
Flonicamid	0.03 / 0.10	2	N/A	ND	PASS
Fludioxonil	0.03 / 0.10	30	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	2	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	3	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	1	N/A	ND	PASS
Malathion	0.03 / 0.09	5	N/A	ND	PASS
Metalaxyl	0.02 / 0.07	15	N/A	ND	PASS
Methiocarb	0.02 / 0.07	≥LOD	N/A	ND	PASS

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Pesticide Analysis Continued

PESTICIDE TEST RESULTS - 06/18/2022 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
Methomyl	0.03 / 0.10	0.1	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥LOD	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	9	N/A	ND	PASS
Naled	0.02 / 0.07	0.5	N/A	ND	PASS
Oxamyl	0.04 / 0.11	0.2	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥LOD	N/A	ND	PASS
Parathion-methyl	0.03 / 0.10	≥LOD	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.2	N/A	ND	PASS
Permethrin	0.04 / 0.12	20	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.2	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	8	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.4	N/A	ND	PASS
Propiconazole	0.02 / 0.07	20	N/A	ND	PASS
Propoxur	0.03 / 0.09	≥LOD	N/A	ND	PASS
Pyrethrins	0.04 / 0.12	1	N/A	ND	PASS
Pyridaben	0.02 / 0.07	3	N/A	ND	PASS
Spinetoram	0.02 / 0.07	3	N/A	ND	PASS
Spinosad	0.02 / 0.07	3	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Spirotetramat	0.02 / 0.06	13	N/A	ND	PASS
Spiroxamine	0.03 / 0.08	≥LOD	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Thiacloprid	0.03 / 0.10	≥LOD	N/A	ND	PASS
Thiamethoxam	0.03 / 0.10	4.5	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	30	N/A	ND	PASS



Mycotoxin Analysis

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by I.C.-MS

MYCOTOXIN TEST RESULTS - 06/18/2022 **⊘** PASS

	COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (μg/kg)	RESULT (µg/kg)	RESULT
	Aflatoxin B1	2.0 / 6.0		N/A	ND	
Ī	Aflatoxin B2	1.8 / 5.6		N/A	ND	
Ī	Aflatoxin G1	1.0 / 3.1		N/A	ND	
	Aflatoxin G2	1.2 / 3.5		N/A	ND	
Ī	Total Aflatoxin		20		ND	PASS
	Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS



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Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

RESIDUAL SOLVENTS TEST RESULTS - 06/18/2022 **⊘** PASS

	COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
Ī	Propane	10/20	5000	N/A	ND	PASS
Ī	n-Butane	10/50	5000	N/A	ND	PASS
	n-Pentane	20/50	5000	N/A	ND	PASS
Ī	n-Hexane	2/5	290	N/A	ND	PASS
Ī	n-Heptane	20/60	5000	N/A	ND	PASS
	Benzene	0.03 / 0.09	1	N/A	ND	PASS
Ī	Toluene	7/21	890	N/A	ND	PASS
	Total Xylenes	50 / 160	2170	N/A	ND	PASS
	Methanol	50/200	3000	N/A	ND	PASS
Ī	Ethanol	20/50	5000	N/A	ND	PASS
	2-Propanol (Isopropyl Alcohol)	10 / 40	5000	N/A	ND	PASS
	Acetone	20/50	5000	N/A	ND	PASS
Ī	Ethyl Ether	20/50	5000	N/A	ND	PASS
	Ethylene Oxide	0.3 / 0.8	1	N/A	ND	PASS
Ī	Ethyl Acetate	20/60	5000	N/A	ND	PASS
	Chloroform	0.1 / 0.2	1	N/A	ND	PASS
	Dichloromethane (Methylene Chloride)	0.3/0.9	1	N/A	ND	PASS
	Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS
4	1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
	Acetonitrile	2/7	410	N/A	ND	PASS



Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP 1160 - Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 06/17/2022 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	3	N/A	ND	PASS



Microbiology Analysis

PCF

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

MICROBIOLOGY TEST RESULTS (PCR) - 06/18/2022 PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing Escherichia coli	Not Detected in 1g	ND	PASS
Salmonella spp.	Not Detected in 1g	ND	PASS



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Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta.

Method: QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

FOREIGN MATERIAL TEST RESULTS - 06/17/2022 PASS

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS