



# Certificate of Analysis

Customer Name: Canopy Growth, USA LLC  
Address: 35715 US 40, Suite D-102  
Evergreen, CO 80439  
Sample Name: CBD SOFTGEL (25MG)  
Product Code: N/A  
Batch/Lot#: LOT: J19076  
MQL Accession #: 191031-0235

Tested By: Micro Quality Labs, Inc.  
Address: 3125 N. Damon Way, Burbank, CA 91505  
P: (818)845-0070 F: (818)845-0030  
PO#: N/A  
Sample Description: BULK  
Rush: N/A  
Received Date: 10/31/19

## Pesticide Test Results 11/05/19

Pesticide, Fungicide and plant growth regular analysis utilizing Gas Chromatography – Mass Spectrometry. MQLTM-0343 (USP<561>Modified) By GC-MS

	µg/g	LOD µg/g	LOQ µg/g
Acephate	< 0.1	0.1 ppm	0.1 ppm
Alachlor	< 0.05	0.05 ppm	0.05 ppm
Aldrin and dieldrin (sum of)	< 0.05	0.05 ppm	0.05 ppm
Azinphos-ethyl	< 0.1	0.1 ppm	0.1 ppm
Azinphos-methyl	< 1	1 ppm	1 ppm
Bromide, inorganic	< 125	125 ppm	125 ppm
Bromophos-ethyl	< 0.05	0.05 ppm	0.05 ppm
Bromophos-methyl	< 0.05	0.05 ppm	0.05 ppm
Bromopropylate	< 3	3 ppm	3 ppm
Chlordane (sum of)	< 0.05	0.05 ppm	0.05 ppm
Clofenvinphos	< 0.5	0.5 ppm	0.5 ppm
Chlorpyrifos-ethyl	< 0.2	0.2 ppm	0.2 ppm
Chlorpyrifos-methyl	< 0.1	0.1 ppm	0.1 ppm
Chlorthal-dimethyl	< 0.01	0.01 ppm	0.01 ppm
Cyfluthrin (sum of)	< 0.1	0.1 ppm	0.1 ppm
λ-Cyhalothrin	< 1	1 ppm	1 ppm
Cypermethrin and isomers (sum of)	< 1	1 ppm	1 ppm
DDT (sum of)	< 1	1 ppm	1 ppm
Deltamethrin	< 0.5	0.5 ppm	0.5 ppm
Diazinon	< 0.5	0.5 ppm	0.5 ppm
Dichlofluanid	< 0.1	0.1 ppm	0.1 ppm
Dichlorvos	< 1	1 ppm	1 ppm
Dicofol	< 0.5	0.5 ppm	0.5 ppm
Dimethoate and omethoate (sum of)	< 0.1	0.1 ppm	0.1 ppm
Dithiocarbamates (expressed as CS <sub>2</sub> )	< 2	2 ppm	2 ppm
Endosulfan (sum of)	< 3	3 ppm	3 ppm
Endrin	< 0.05	0.05 ppm	0.05 ppm
Ethion	< 2	2 ppm	2 ppm
Etriphos	< 0.05	0.05 ppm	0.05 ppm
Fenchlorophos (sum of)	< 0.1	0.1 ppm	0.1 ppm
Fenitrothion	< 0.5	0.5 ppm	0.5 ppm
Fenpropathrin	< 0.03	0.03 ppm	0.03 ppm
Fensulfothion (sum of)	< 0.05	0.05 ppm	0.05 ppm
Fenthion (sum of)	< 0.05	0.05 ppm	0.05 ppm
Fenvalerate	< 1.5	1.5 ppm	1.5 ppm
Flucythrinate	< 0.05	0.05 ppm	0.05 ppm
t-Fluvalinate	< 0.05	0.05 ppm	0.05 ppm
Fonophos	< 0.05	0.05 ppm	0.05 ppm
Heptachlor (sum of)	< 0.05	0.05 ppm	0.05 ppm
Hexachlorbenzene	< 0.1	0.1 ppm	0.1 ppm
Hexachlorocyclohexane (sum of)	< 0.3	0.3 ppm	0.3 ppm
Lindan (γ-hexachlorocyclohexane)	< 0.6	0.6 ppm	0.6 ppm
Malathion and malaoxon (sum of)	< 1	1 ppm	1 ppm
Mecarbam	< 0.05	0.05 ppm	0.05 ppm
Methacriphos	< 0.05	0.05 ppm	0.05 ppm
Methamidophos	< 0.05	0.05 ppm	0.05 ppm
Methidathion	< 0.2	0.2 ppm	0.2 ppm
Methoxychlor	< 0.05	0.05 ppm	0.05 ppm
Mirex	< 0.01	0.01 ppm	0.01 ppm

## Aflatoxin Test Results N/A

Aflatoxin analysis utilizing MQLTM-1129 by LCMS

	µg/g	LOD µg/g	LOQ µg/g
Aflatoxin	N/A	N/A	N/A

## Pesticide Test Results 11/05/19

Pesticide, Fungicide and plant growth regular analysis utilizing Gas Chromatography – Mass Spectrometry. MQLTM-0343 (USP<561>Modified) By GC-MS

	µg/g	LOD µg/g	LOQ µg/g
Monocrotophos	< 0.1	0.1 ppm	0.1 ppm
Parathion-ethyl and paraoxon-ethyl (sum of)	< 0.5	0.5 ppm	0.5 ppm
Parathion-methyl and paraoxon-methyl (sum of)	< 0.2	0.2 ppm	0.2 ppm
Pendimethalin	< 0.1	0.1 ppm	0.1 ppm
Pentachloranisole	< 0.01	0.01 ppm	0.01 ppm
Permethrin and isomers (sum of)	< 1	1 ppm	1 ppm
Phosalone	< 0.1	0.1 ppm	0.1 ppm
Phosmet	< 0.05	0.05 ppm	0.05 ppm
Piperonyl butoxide	< 3	3 ppm	3 ppm
Pirimiphos-ethyl	< 0.05	0.05 ppm	0.05 ppm
Pirimiphos-methyl (sum of)	< 4	4 ppm	4 ppm
Procymidone	< 0.1	0.1 ppm	0.1 ppm
Profenophos	< 0.1	0.1 ppm	0.1 ppm
Prothiophos	< 0.05	0.05 ppm	0.05 ppm
Pyrethrum (sum of)	< 3	3 ppm	3 ppm
Quinalphos	< 0.05	0.05 ppm	0.05 ppm
Quintozene (sum of)	< 1	1 ppm	1 ppm
S-421	< 0.02	0.02 ppm	0.02 ppm
Tecnazene	< 0.05	0.05 ppm	0.05 ppm
Tetradifon	< 0.3	0.3 ppm	0.3 ppm
Vinclozolin	< 0.4	0.4 ppm	0.4 ppm

## Heavy Metal Test Results 11/07/19

Heavy metal analysis utilizing Inductively Coupled Mass Spectrometry (ICP-MS) MQLTM-0278 by ICP-MS.

	ppm	LOD µg/g	LOQ µg/g
Lead	Not Detected	0.2 ppb	3 ppb
Arsenic	0.017 ppm	0.5 ppb	3 ppb
Cadmium	Not Detected	0.1 ppb	3 ppb
Mercury	Not Detected	0.07 ppb	1 ppb

## 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.



Prepared By:

NOV 14 2019

Diana Zavala/Document Control Specialist 11/14/19

Reviewed By:

NOV 14 2019

Andrea Orozco/Quality Assurance Supervisor 11/14/19

Scan to verify at  
[microqualitylabs.com](http://microqualitylabs.com)

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.



# Certificate of Analysis

Customer Name: Canopy Growth, USA LLC  
Address: 35715 US 40, Suite D-102  
Evergreen, CO 80439  
Sample Name: CBD SOFTGEL (25MG)  
Product Code: N/A  
Batch/Lot#: LOT: J19076  
MQL Accession #: 191031-0235

Tested By: Micro Quality Labs, Inc.  
Address: 3125 N. Damon Way, Burbank, CA 91505  
P: (818)845-0070 F: (818)845-0030  
PO#: N/A  
Sample Description: BULK  
Rush: N/A  
Received Date: 10/31/19

## Moisture Test Results N/A

Analysis performed per USP 42 method

	Specifications	%
Moisture	N/A	

## Water Activity Test Results N/A

Test method utilized: MQLTM-0593

Moisture	N/A
----------	-----

## Cannabinoid Test Results 11/05 /19

Cannabinoid analysis utilizing Ultra Performance Liquid Chromatography, MQLTM-1270 by UPLC

	mg/g	%	LOD µg/g	LOQ µg/g
CBDVA	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBDV	0.09 mg		0.5 ppm	1 ppm
CBDA	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBGA	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBG	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBD	25.19 mg		0.5 ppm	1 ppm
THCV	ND (NMT 0.01%)		0.5 ppm	1 ppm
THCVA	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBN	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBNA	ND (NMT 0.01%)		0.5 ppm	1 ppm
Δ9 - THC	ND (NMT 0.01%)		0.5 ppm	1 ppm
Δ8 - THC	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBL	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBC	ND (NMT 0.01%)		0.5 ppm	1 ppm
THCA-A	ND (NMT 0.01%)		0.5 ppm	1 ppm
CBCA	ND (NMT 0.01%)		0.5 ppm	1 ppm
Sum of Cannabinoids			0.5 ppm	1 ppm
Total THC (Δ9THC+0.877*THCa)	THC FREE (NMT 0.3%)		0.5 ppm	1 ppm
Total CBD (CBD+0.877*CBDA)	25 mg		0.5 ppm	1 ppm
	Action Limit			
THC per Unit	N/A		0.5 ppm	1 ppm
THC per Serving	N/A		0.5 ppm	1 ppm

## Terpene Test Results N/A

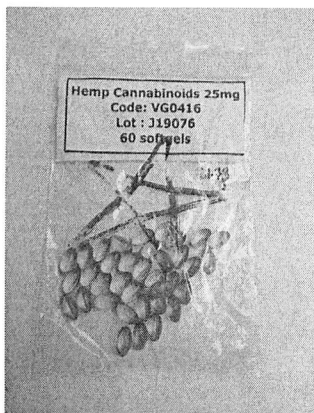
Terpene analysis by GC-MS, MQLTM-1283 by GC-MS

	mg/g	%
(-)-α-Bisabolol (23089-26-1)	N/A	N/A
Camphene (79-92-5)	N/A	N/A
δ-3-Carene (13466-78-9)	N/A	N/A
β-Caryophyllene (87-44-5)	N/A	N/A
Geraniol (106-24-1)	N/A	N/A
(-)-Guaiol (489-86-1)	N/A	N/A
α-Humulene (6753-98-6)	N/A	N/A
p-Isopropyltoluene (p-cymene) (99-87-6)	N/A	N/A
(-)-Isopulegol (89-79-2)	N/A	N/A
d-Limonene (5989-27-5)	N/A	N/A
Linalool (78-70-6)	N/A	N/A
β-Myrcene (123-35-3)	N/A	N/A
Nerolidol (7212-44-4)	N/A	N/A
Ocimene (13877-91-3)	N/A	N/A
α-Pinene (80-56-8)	N/A	N/A
(-)-β-Pinene (18172-67-3)	N/A	N/A
α-Terpinene (99-86-5)	N/A	N/A
γ-Terpinene (99-85-4)	N/A	N/A
Terpinolene (586-62-9)	N/A	N/A
(-)-Caryophyllene oxide (1139-30-6)	N/A	N/A
1,8-Cineole (Eucalyptol) (470-82-6)	N/A	N/A
Total Terpene Concentration:		

## 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.

## Batch Photo



Prepared By: NOV 14 2019  
Diana Zavala/Document Control Specialist 11/14/19  
Reviewed By: NOV 14 2019  
Andrea Orozco/Quality Assurance Supervisor 11/14/19

Scan to verify at  
[microqualitylabs.com](http://microqualitylabs.com)

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.



# Certificate of Analysis

Customer Name: Canopy Growth, USA LLC  
Address: 35715 US 40, Suite D-102  
Evergreen, CO 80439  
Sample Name: CBD SOFTGEL (25MG)  
Product Code: N/A  
Batch/Lot#: LOT: J19076  
MQL Accession #: 191031-0235

Tested By: Micro Quality Labs, Inc.  
Address: 3125 N. Damon Way, Burbank, CA 91505  
P: (818)845-0070 F: (818)845-0030  
PO#: N/A  
Sample Description: BULK  
Rush: N/A  
Received Date: 10/31/19

## Residual Solvents Test Results 11/08/19

Residual Solvent analysis utilizing Gas Chromatography - Mass Spectrometry (GC-MS), USP<42> Modified [467] By GC-FID

Class I:	USP Limit	Results
1,1 Dichloroethene	8 ppm	Not Detected
1,1,1 Trichloroethane	1500 ppm	Not Detected
Carbon Tetrachloride	4 ppm	Not Detected
Benzene	2 ppm	Not Detected
1,2-Dichloroethane	5 ppm	Not Detected
<u>Class IIA:</u>		Not Detected
Methanol	3000 ppm	Not Detected
Acetonitrile	410 ppm	Not Detected
Dichloromethane	600 ppm	Not Detected
1,2-dichloroethene	1870 ppm	Not Detected
Cis-1,2-dichloroethene	900 ppm	Not Detected
Tetrahydrofuran	720 ppm	Not Detected
Cyclohexane	3880 ppm	Not Detected
Methylcyclohexane	1180 ppm	Not Detected
Toluene	380 ppm	Not Detected
1,4-dioxane	890 ppm	Not Detected
Chlorobenzene	360 ppm	Not Detected
Ethylbenzene	1605.8 ppm	Not Detected
m/p-Xylene	368.9 ppm	Not Detected
o-Xylene	195.3 ppm	Not Detected
Cumene	70 ppm	Not Detected
<u>Class IIB:</u>		Not Detected
Hexane	290 ppm	Not Detected
1,2 Dimethoxyethane	100 ppm	Not Detected
trichloroethylene	80 ppm	Not Detected
Chloroform	60 ppm	Not Detected
2-Hexanone	50 ppm	Not Detected
Nitromethane	50 ppm	Not Detected
Tetralin	200 ppm	Not Detected
Pyridine	100 ppm	Not Detected
<u>Class III:</u>		Not Detected
Ethanol	5000 ppm	Not Detected
Acetone	5000 ppm	Not Detected
IPA	5000 ppm	Not Detected
Methyl Acetate	5000 ppm	Not Detected
Tert Butyl Methyl ether	5000 ppm	Not Detected
Tributylamine	5000 ppm	Not Detected
Acetic Acid	5000 ppm	Not Detected
n-Heptane	5000 ppm	Not Detected

## Microbiological Test Results 10/31/19

USP 61 & USP 62

	Results
TPC	<10cfu/gm
Yeast/Mold	<10cfu/gm
Coliforms	<10cfu/gm
E.Coli	Absent
Pseudomonas	Absent
S.aureus	Absent
Salmonella/Shigella	Absent

## Additional Tests 11/13/19

Test	Method	Result
Peroxide Value	USP 42 Modified <401>	0.0 meq/kg
Anisidine Value	USP 42 Modified <401>	5 meq/kg
Acid Value	USP 42 Modified <401>	0.4 mgKOH/g
Appearance	MQLTM-0024	Passes
Size	MQLTM-0024	Passes
Shape	MQLTM-0024	Passes
Rupture Test	MQLTM-0359	Passes
Average Weight	USP 42 Modified	230 mg
Uniformity By	USP 42 Modified	NMT 15.0
Weight Average	<905>	

### Note:

MFG DATE: 10/25/19

## 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.



Prepared By:

NOV 14 2019

Diana Zavala/Document Control Specialist 11/14/19

Reviewed By:

NOV 14 2019

Andrea Orozco/Quality Assurance Supervisor 11/14/19

Scan to verify at  
[microqualitylabs.com](http://microqualitylabs.com)

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.



# Micro Quality Labs, Inc.

Specializing in Pharmaceutical, Dietary Supplements, Toys and Cosmetic Testing  
3125 N. Damon Way • Burbank, California 91505  
(818) 845-0070 • Fax: (818) 845-0030  
E-Mail: [Karine@MicroQualityLabs.com](mailto:Karine@MicroQualityLabs.com)



**Customer:** Canopy Growth, USA LLC  
**Address:** 35715 US 40, Suite D-102  
Evergreen, CO 80439

Received From:	Evergreen, CO
Received Date:	10/31/19
Release Date:	11/06/19
PO #	N/A

## MICROBIOLOGICAL CERTIFICATE OF ANALYSIS

**Sample Name:** CBD SOFTGEL (25MG)

**Product Code:** N/A

**Batch/Lot #:** J19076

**MQL Accession #:** 866408

**Description:** BULK

Analyte:	Result:	Method:	Test Date:	Comment:
TPC	<10cfu/gm	TM-01 (Modified USP61)	10/31/19	N/A
Yeast/Mold	<10cfu/gm	TM-01 (Modified USP61)	10/31/19	N/A
Coliforms	<10cfu/gm	TM-01A (Modified USP62)	10/31/19	N/A
E.Coli	Absent	TM-01A (Modified USP62)	10/31/19	N/A
Pseudomonas	Absent	TM-01A (Modified USP62)	10/31/19	N/A
S.aureus	Absent	TM-01A (Modified USP62)	10/31/19	N/A
Salmonella/Shigella	Absent	TM-01A (Modified USP62)	10/31/19	N/A
Enterobacteriaceae	Absent	TM-01A (Modified USP62)	10/31/19	N/A

All Products were tested in accordance with the USP Standard for Total Plate Count and Enrichment. Additional guidance was referenced by CTFA Microbiological Guidelines.

Prepared By: Cate Wolswinkel/ Document Control  
Specialist

Reviewed By: Raffie Avakian/ Quality Assurance  
Reviewer

NOV 06 2019

Date:

Micro Quality Laboratories, Inc. (MQL), is an A2LA ISO 17025 accredited testing laboratory (Certificate Number 3034.01). The requirements of ISO 17025 were followed for the test, results and preparation of this certificate of analysis. MQL's scope of accreditation may be found on A2LA or MQL websites.

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.

This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed, and neither the report nor the name of Micro Quality Labs, Inc. nor any member of its staff, may be used in connection with the advertising or sale of any product or process without written authorization from Micro Quality Labs, Inc. Failure to comply will result in immediate legal action by Micro Quality Labs, Inc.