

SAMPLE NAME: Tropical Cookies 0.5g

Concentrate, Product Inhalable

CULTIVATOR / MANUFACTURER

Business Name: lob manufacturing inc.

License Number: CDPH-10002733

Address: 3440 AIRWAY DR STE D, SANTA ROSA, CA 95403-2065

DISTRIBUTOR

Business Name: ADIRA Distribution, Inc.

License Number: C11-0000739-LIC

Address: 3440 AIRWAY DR, SUITE c, SANTA ROSA, CA 95403-2065

SAMPLE DETAIL

Batch Number: CS-06222020-TRC-0. 5g

Sample ID: 200626S013

Source Metric UID:
1A406030000232E000000668

Date Collected: 06/26/2020

Date Received: 06/27/2020

Batch Size: 1899 Unit(s)

Sample Size: 36 Unit(s)

Unit Mass: 0.5 Grams per Unit

Serving Size:

Sampling Method: QSP - (1265) Sampling of Cannabis and Product Batches



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY ✔ PASS

Sum of Cannabinoids: 76.816%

Total Cannabinoids: 74.906%

Total THC: 68.332%

Total CBD: 0.256%

Sum of Cannabinoids = $\Delta 9\text{THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} + \text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$
 Total Cannabinoids = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDa}) + (\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) + (\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$
 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 = $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$
 Total CBD = $\text{CBD} + (\text{CBDa} \cdot 0.877)$

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

$\Delta 9\text{THC}$ per Unit: ✔ PASS

Foreign Material: ✔ PASS

Residual Solvents: ✔ PASS

Pesticides: ✔ PASS

Mycotoxins: ✔ PASS

Heavy Metals: ✔ PASS

Microbial Impurities: ✔ PASS

TERPENOID ANALYSIS - SUMMARY

35 TESTED, TOP 3 HIGHLIGHTED

● **β Caryophyllene 17.36 mg/g**

● **α Humulene 4.70 mg/g**

● **Limonene 4.62 mg/g**

These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

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)



LQC verified by: Paul Dorenbach
Date: 07/01/2020



Approved by: Josh Wurzer, President
Date: 07/01/2020



Cannabinoid Analysis

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

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

TOTAL CANNABINOIDS: 74.906%

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ8THC + CBL + CBN

TOTAL THC: 68.332%

Total THC (Δ9THC+0.877*THCa)

TOTAL CBD: 0.256%

Total CBD (CBD+0.877*CBDa)

TOTAL CBG: 3.626%

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: 1.23%

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 0.972%

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: ND

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 06/27/2020 ✔ **PASS**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Δ9THC	0.06 / 0.18	±19.497	566.77	56.677
THCa	0.05 / 0.14	±3.416	132.90	13.290
CBG	0.06 / 0.19	±1.000	25.39	2.539
CBGa	0.1 / 0.2	±0.65	12.4	1.24
THCV	0.1 / 0.2	±0.61	12.3	1.23
CBCa	0.07 / 0.21	±0.430	8.80	0.880
CBN	0.1 / 0.3	±0.32	4.9	0.49
CBC	0.2 / 0.5	±0.06	2.0	0.20
CBD	0.07 / 0.20	±0.072	1.56	0.156
CBDa	0.02 / 0.07	±0.033	1.14	0.114
Δ8THC	0.1 / 0.4	N/A	ND	ND
THCVa	0.07 / 0.20	N/A	ND	ND
CBDV	0.04 / 0.14	N/A	ND	ND
CBDVa	0.03 / 0.10	N/A	ND	ND
CBL	0.06 / 0.18	N/A	ND	ND
SUM OF CANNABINOIDS			768.16 mg/g	76.816%

Unit Mass: 0.5 Grams per Unit

Δ9THC per Unit	1000.0 per-package limit	283.38 mg/unit	PASS
Total THC per Unit		341.66 mg/unit	
CBD per Unit		0.78 mg/unit	
Total CBD per Unit		1.28 mg/unit	
Sum of Cannabinoids per Unit		384.08 mg/unit	
Total Cannabinoids per Unit		374.53 mg/unit	

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

Not Tested

VISCOSITY TEST RESULT

Not Tested



Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

Method: OSP - (1192) Analysis of Terpenoids by GC-FID

1 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.

2 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.

3 Limonene

A monoterpene with a fragrance that can be described as orangey, citrusy, sweet and tart. It is most commonly found in nature as D-Limonene and is a primary contributor to the distinct scent of orange peels, from which it is commonly derived. Found in numerous pines, red maple, silver maple, aspens, cottonwoods, hemlocks, sumac, cedar, junipers...etc.

TERPENOID TEST RESULTS - 06/29/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β Caryophyllene	0.04 / 0.11	±0.823	17.36	1.736
α Humulene	0.03 / 0.08	±0.152	4.70	0.470
Limonene	0.04 / 0.12	±0.170	4.62	0.462
Myrcene	0.1 / 0.2	±0.16	2.0	0.20
Linalool	0.04 / 0.1	±0.10	1.9	0.19
α Bisabolol	0.1 / 0.2	±0.08	1.8	0.18
Caryophyllene Oxide	0.1 / 0.2	±0.08	1.1	0.11
β Pinene	0.1 / 0.2	±0.05	0.7	0.07
Terpineol	0.03 / 0.1	±0.06	0.6	0.06
α Pinene	0.04 / 0.13	±0.036	0.55	0.055
Fenchol	0.1 / 0.2	±0.03	0.5	0.05
Valencene	0.02 / 0.06	±0.007	0.35	0.035
Camphene	0.1 / 0.2	N/A	<LOQ	<LOQ
Borneol	0.1 / 0.3	N/A	<LOQ	<LOQ
α Cedrene	0.03 / 0.10	N/A	<LOQ	<LOQ
Sabinene	0.1 / 0.2	N/A	ND	ND
α Phellandrene	0.1 / 0.2	N/A	ND	ND
3 Carene	0.1 / 0.2	N/A	ND	ND
α Terpinene	0.1 / 0.2	N/A	ND	ND
Eucalyptol	0.1 / 0.2	N/A	ND	ND
Ocimene	0.05 / 0.1	N/A	ND	ND
γ Terpinene	0.1 / 0.2	N/A	ND	ND
Sabinene Hydrate	0.1 / 0.2	N/A	ND	ND
Fenchone	0.1 / 0.2	N/A	ND	ND
Terpinolene	0.04 / 0.1	N/A	ND	ND
(-)-Isopulegol	0.03 / 0.08	N/A	ND	ND
Camphor	0.1 / 0.3	N/A	ND	ND
Isoborneol	0.1 / 0.2	N/A	ND	ND
Menthol	0.04 / 0.1	N/A	ND	ND
Nerol	0.05 / 0.1	N/A	ND	ND
R-(+)-Pulegone	0.04 / 0.1	N/A	ND	ND
Geraniol	0.04 / 0.11	N/A	ND	ND
Geranyl Acetate	0.03 / 0.10	N/A	ND	ND
Nerolidol	0.03 / 0.09	N/A	ND	ND
Guaiol	0.04 / 0.13	N/A	ND	ND
Cedrol	0.1 / 0.2	N/A	ND	ND
TOTAL TERPENOIDS			36.18 mg/g	3.618%



 **Pesticide Analysis**

CATEGORY 1 PESTICIDE TEST RESULTS - 06/28/2020 ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Aldicarb	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Carbofuran	0.01 / 0.04	≥ LOD	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
Coumaphos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Daminozide	0.03 / 0.10	≥ LOD	N/A	ND	PASS
DDVP (Dichlorvos)	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Dimethoate	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Ethoprop(hos)	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Fenoxycarb	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Fipronil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methyl parathion	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Propoxur	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Spiroxamine	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Thiacloprid	0.03 / 0.07	≥ LOD	N/A	ND	PASS

CATEGORY 2 PESTICIDE TEST RESULTS - 06/28/2020 ✔ PASS

Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.01 / 0.04	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.05	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Azoxystrobin	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenazate	0.01 / 0.02	0.1	N/A	ND	PASS
Bifenthrin	0.01 / 0.02	3	N/A	ND	PASS
Boscalid	0.02 / 0.06	0.1	N/A	ND	PASS
Captan	0.2 / 0.5	0.7	N/A	ND	PASS
Carbaryl	0.01 / 0.02	0.5	N/A	ND	PASS
Chlorantraniliprole	0.01 / 0.03	10	N/A	ND	PASS

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Pesticide Analysis *Continued*

CATEGORY 2 PESTICIDE TEST RESULTS - 06/28/2020 *continued* ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Clofentezine	0.02 / 0.06	0.1	N/A	ND	PASS
Cyfluthrin	0.1 / 0.4	2	N/A	ND	PASS
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon	0.01 / 0.04	0.1	N/A	ND	PASS
Dimethomorph	0.01 / 0.03	2	N/A	ND	PASS
Etoxazole	0.010 / 0.028	0.1	N/A	ND	PASS
Fenhexamid	0.02 / 0.1	0.1	N/A	ND	PASS
Fenpyroximate	0.03 / 0.08	0.1	N/A	ND	PASS
Flonicamid	0.01 / 0.04	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.08	0.1	N/A	ND	PASS
Hexythiazox	0.01 / 0.04	0.1	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.02 / 0.05	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.06	2	N/A	ND	PASS
Methomyl	0.03 / 0.1	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.1	0.1	N/A	ND	PASS
Naled	0.03 / 0.1	0.1	N/A	ND	PASS
Oxamyl	0.02 / 0.06	0.5	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.03 / 0.09	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonylbutoxide	0.003 / 0.009	3	±0.0013	0.030	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.01 / 0.03	0.1	N/A	ND	PASS
Pyrethrins	0.03 / 0.08	0.5	N/A	ND	PASS
Pyridaben	0.006 / 0.019	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.06	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.01 / 0.02	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.08	5	N/A	ND	PASS
Trifloxystrobin	0.01 / 0.03	0.1	N/A	ND	PASS





Mycotoxin Analysis

MYCOTOXIN TEST RESULTS - 06/30/2020 ✔ PASS

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

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS

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



Residual Solvents Analysis

CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 06/28/2020 ✔ PASS

CATEGORY 1 AND 2 RESIDUAL SOLVENTS

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

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.1 / 0.4	1	N/A	ND	PASS
Methylene chloride	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 06/28/2020 ✔ PASS

Acetone	20 / 50	5000	N/A	<LOQ	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS
Butane	10 / 50	5000	±35.6	578	PASS
Ethanol	20 / 50	5000	N/A	<LOQ	PASS
Ethyl acetate	20 / 60	5000	N/A	ND	PASS
Ethyl ether	20 / 50	5000	N/A	ND	PASS
Heptane	20 / 60	5000	N/A	ND	PASS
Hexane	2 / 5	290	N/A	ND	PASS
Isopropyl Alcohol	10 / 40	5000	N/A	<LOQ	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Pentane	20 / 50	5000	N/A	ND	PASS
Propane	10 / 20	5000	±6.7	93	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	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 - 06/27/2020 ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	ND	PASS

Microbial Impurities Analysis

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

Method: QSP - (1221) Analysis of Microbial Impurities

MICROBIAL IMPURITIES TEST RESULTS - 06/29/2020 ✔ PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Detect	ND	PASS
<i>Salmonella</i> spp.	Detect	ND	PASS
<i>Aspergillus fumigatus</i>	Detect	ND	PASS
<i>Aspergillus flavus</i>	Detect	ND	PASS
<i>Aspergillus niger</i>	Detect	ND	PASS
<i>Aspergillus terreus</i>	Detect	ND	PASS

Foreign Material Analysis

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

Method: QSP - (1227) Analysis of Foreign Material in Cannabis and Cannabis Products

FOREIGN MATERIAL TEST RESULTS - 06/27/2020 ✔ 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

