

SAMPLE NAME: CBD Tincture

Infused, Liquid Edible

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR / TESTED FOR

Business Name: Sisters Of The Valley

License Number:

Address:
Merced CA 95348



SAMPLE DETAIL

Batch Number: Birch Moon Jan 2021 (b)

Sample ID: 210216W011

Date Collected: 02/16/2021

Date Received: 02/16/2021

Batch Size:

Sample Size:

Unit Mass: 25.4738 grams per Unit

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 12.584 mg/unit

Total CBD: 325.275 mg/unit

Sum of Cannabinoids: 359.512 mg/unit

Total Cannabinoids: 359.511 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 = $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$
 Total CBD = $\text{CBD} + (\text{CBDa} \cdot 0.877)$
 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 = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDa}) + (\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) + (\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Moisture: NT

Density: 0.8606 g/mL

Viscosity: NT

TERPENOID ANALYSIS - SUMMARY

36 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.031%

● Myrcene 0.19 mg/g
 ● β Caryophyllene 0.12 mg/g
 ● α Pinene <LOQ

SAFETY ANALYSIS - SUMMARY

$\Delta 9\text{THC}$ per Unit: ✔ PASS

Pesticides: NT

Heavy Metals: NT

Foreign Material: NT

Mycotoxins: NT

Microbial Impurities (PCR): NT

Water Activity: NT

Residual Solvents: NT

Microbial Impurities (Plating): NT

Vitamin E Acetate: NT

For quality assurance purposes. Not a Pre-Harvest 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 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: Reza Naemeh Approved by: Josh Wurzer, President
 Date: 02/19/2021 Date: 02/19/2021



CANNABINOID TEST RESULTS - 02/19/2021

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

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

TOTAL THC: 12.584 mg/unit

Total THC ($\Delta 9\text{THC} + 0.877 * \text{THCa}$)

TOTAL CBD: 325.275 mg/unit

Total CBD ($\text{CBD} + 0.877 * \text{CBDa}$)

TOTAL CANNABINOIDS: 359.511 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + $\Delta 8\text{THC}$ + CBL + CBN

TOTAL CBG: 7.336 mg/unit

Total CBG ($\text{CBG} + 0.877 * \text{CBGa}$)

TOTAL THCV: ND

Total THCV ($\text{THCV} + 0.877 * \text{THCVa}$)

TOTAL CBC: 11.896 mg/unit

Total CBC ($\text{CBC} + 0.877 * \text{CBCa}$)

TOTAL CBDV: 1.885 mg/unit

Total CBDV ($\text{CBDV} + 0.877 * \text{CBDVa}$)

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	± 0.6116	12.769	1.2769
$\Delta 9\text{THC}$	0.002 / 0.014	± 0.0348	0.494	0.0494
CBC	0.003 / 0.010	± 0.0193	0.467	0.0467
CBG	0.002 / 0.006	± 0.0179	0.288	0.0288
CBDV	0.002 / 0.012	± 0.0039	0.074	0.0074
CBL	0.003 / 0.010	± 0.0010	0.021	0.0021
CBDa	0.001 / 0.026	N/A	<LOQ	<LOQ
CBN	0.001 / 0.007	N/A	<LOQ	<LOQ
$\Delta 8\text{THC}$	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
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 CANNABINOIDS			14.113 mg/g	1.4113%

Unit Mass: 25.4738 grams per Unit

$\Delta 9\text{THC}$ per Unit	1120 per-package limit	12.584 mg/unit	PASS
Total THC per Unit		12.584 mg/unit	
CBD per Unit		325.275 mg/unit	
Total CBD per Unit		325.275 mg/unit	
Sum of Cannabinoids per Unit		359.512 mg/unit	
Total Cannabinoids per Unit		359.511 mg/unit	

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

0.8606 g/mL
Tested 02/19/2021
Method: QSP 7870 - Sample Preparation

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: QSP 1192 - Analysis of Terpenoids by GC-FID

1 Myrcene

A monoterpene with a fragrance that can be described as peppery, spicy, herbal, floral and woody. Although it has a pleasant odor, it is typically used by the perfume industry as precursor for developing other fragrances. Found in hops, houttuynia, bay, thyme, lemon grass, mango, verbena, cardamom, citrus...etc.

2 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.

3 α Pinene

One of two isomers of the monoterpene Pinene, the most abundant terpene in the natural world. It is responsible for the distinct aroma of many coniferous trees, particularly pines, from which it derives its name. It is a primary constituent of turpentine. Found in pines, rose gun, parsley, frankincense, guava, juniper, rosemary, nutmeg, blue gum, valerian...etc.

TERPENOID TEST RESULTS - 02/19/2021

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Myrcene	0.04 / 0.11	±0.015	0.19	0.019
β Caryophyllene	0.02 / 0.07	±0.006	0.12	0.012
α Pinene	0.03 / 0.09	N/A	<LOQ	<LOQ
Limonene	0.02 / 0.05	N/A	<LOQ	<LOQ
α Humulene	0.02 / 0.05	N/A	<LOQ	<LOQ
Guaiol	0.03 / 0.09	N/A	<LOQ	<LOQ
α Bisabolol	0.02 / 0.07	N/A	<LOQ	<LOQ
Camphene	0.04 / 0.11	N/A	ND	ND
Sabinene	0.04 / 0.11	N/A	ND	ND
β Pinene	0.04 / 0.11	N/A	ND	ND
α Phellandrene	0.05 / 0.1	N/A	ND	ND
3 Carene	0.04 / 0.1	N/A	ND	ND
α Terpinene	0.04 / 0.1	N/A	ND	ND
Eucalyptol	0.03 / 0.08	N/A	ND	ND
Ocimene	0.03 / 0.09	N/A	ND	ND
γ Terpinene	0.04 / 0.1	N/A	ND	ND
Sabinene Hydrate	0.02 / 0.07	N/A	ND	ND
Fenchone	0.04 / 0.12	N/A	ND	ND
Terpinolene	0.03 / 0.09	N/A	ND	ND
Linalool	0.03 / 0.08	N/A	ND	ND
Fenchol	0.03 / 0.09	N/A	ND	ND
(-)-Isopulegol	0.02 / 0.05	N/A	ND	ND
Camphor	0.1 / 0.2	N/A	ND	ND
Isoborneol	0.04 / 0.1	N/A	ND	ND
Borneol	0.1 / 0.2	N/A	ND	ND
Menthol	0.03 / 0.09	N/A	ND	ND
Terpineol	0.02 / 0.07	N/A	ND	ND
Nerol	0.03 / 0.09	N/A	ND	ND
R-(+)-Pulegone	0.03 / 0.09	N/A	ND	ND
Geraniol	0.02 / 0.07	N/A	ND	ND
Geranyl Acetate	0.02 / 0.06	N/A	ND	ND
α Cedrene	0.02 / 0.07	N/A	ND	ND
Valencene	0.01 / 0.03	N/A	ND	ND
Nerolidol	0.3 / 0.8	N/A	ND	ND
Caryophyllene Oxide	0.04 / 0.11	N/A	ND	ND
Cedrol	0.04 / 0.11	N/A	ND	ND
TOTAL TERPENOIDS			0.31 mg/g	0.031%

