

SAMPLE NAME: SLEEP TINCTURE

Infused, Liquid Edible

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR

Business Name: Lulu's Botanicals

License Number:

Address:
Santa Cruz CA 95063



SAMPLE DETAIL

Batch Number:

Sample ID: 201113X009

Date Collected: 11/13/2020

Date Received: 11/13/2020

Batch Size:

Sample Size: 1.0 units

Unit Mass: 30 milliliters per Unit

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 27.030 mg/unit

Total CBD: 1010.880 mg/unit

Sum of Cannabinoids: 1316.220 mg/unit

Total Cannabinoids: 1316.220 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: 0.95 g/mL

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

$\Delta 9\text{THC}$ per Unit: ✔ PASS

Foreign Material: NT

Water Activity: NT

Vitamin E Acetate: NT

Pesticides: ✔ PASS

Mycotoxins: NT

Residual Solvents: ✔ PASS

Heavy Metals: ✔ PASS

Microbial Impurities (PCR): NT

Microbial Impurities (Plating): 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)

Reza Naemeh
 LQC verified by: Reza Naemeh
 Date: 11/16/2020

Josh Wurzer
 Approved by: Josh Wurzer, President
 Date: 11/16/2020



CANNABINOID TEST RESULTS - 11/15/2020

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

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

TOTAL THC: 27.030 mg/unit

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

TOTAL CBD: 1010.880 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 1316.220 mg/unit

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

TOTAL CBG: 9.150 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 15.060 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 6.240 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

COMPOUND	LOD/LOQ (mg/mL)	MEASUREMENT UNCERTAINTY (mg/mL)	RESULT (mg/mL)	RESULT (%)
CBD	0.004 / 0.011	±1.6140	33.696	3.5469
CBN	0.001 / 0.004	±0.2994	8.114	0.8541
$\Delta 9$ THC	0.002 / 0.005	±0.0635	0.901	0.0948
CBC	0.003 / 0.010	±0.0208	0.502	0.0528
CBG	0.002 / 0.005	±0.0190	0.305	0.0321
CBDV	0.002 / 0.007	±0.0109	0.208	0.0219
$\Delta 8$ THC	0.01 / 0.02	±0.006	0.09	0.009
CBL	0.003 / 0.008	±0.0027	0.058	0.0061
THCa	0.001 / 0.002	N/A	ND	ND
THCV	0.002 / 0.008	N/A	ND	ND
THCVa	0.002 / 0.005	N/A	ND	ND
CBDA	0.001 / 0.003	N/A	ND	ND
CBDVa	0.001 / 0.003	N/A	ND	ND
CBGa	0.002 / 0.006	N/A	ND	ND
CBCa	0.001 / 0.004	N/A	ND	ND
SUM OF CANNABINOIDS			43.874 mg/mL	4.6183%

Unit Mass: 30 milliliters per Unit

$\Delta 9$ THC per Unit	1100 per-package limit	27.030 mg/unit	PASS
Total THC per Unit		27.030 mg/unit	
CBD per Unit		1010.880 mg/unit	
Total CBD per Unit		1010.880 mg/unit	
Sum of Cannabinoids per Unit		1316.220 mg/unit	
Total Cannabinoids per Unit		1316.220 mg/unit	

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

0.95 g/mL
Tested 11/15/2020
Method: QSP 7870 - Sample Preparation

VISCOSITY TEST RESULT

Not Tested





Pesticide Analysis

CATEGORY 1 PESTICIDE TEST RESULTS - 11/16/2020 ✔ 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				NT	
Carbofuran				NT	
Chlordane*				NT	
Chlorfenapyr*				NT	
Chlorpyrifos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Coumaphos				NT	
Daminozide				NT	
DDVP (Dichlorvos)				NT	
Dimethoate				NT	
Ethoprop(hos)				NT	
Etofenprox				NT	
Fenoxycarb				NT	
Fipronil				NT	
Imazalil				NT	
Methiocarb				NT	
Methyl parathion				NT	
Mevinphos				NT	
Paclobutrazol				NT	
Propoxur				NT	
Spiroxamine				NT	
Thiacloprid				NT	

CATEGORY 2 PESTICIDE TEST RESULTS - 11/16/2020 ✔ PASS

Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Acephate				NT	
Acequinocyl				NT	
Acetamiprid				NT	
Azoxystrobin	0.01 / 0.04	40	N/A	ND	PASS
Bifenazate	0.01 / 0.02	5	N/A	ND	PASS
Bifenthrin	0.01 / 0.02	0.5	N/A	ND	PASS
Boscalid	0.02 / 0.06	10	N/A	ND	PASS
Captan				NT	
Carbaryl				NT	
Chlorantraniliprole				NT	

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Pesticide Analysis *Continued*

CATEGORY 2 PESTICIDE TEST RESULTS - 11/16/2020 *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				NT	
Cyfluthrin				NT	
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon				NT	
Dimethomorph				NT	
Etoxazole	0.010 / 0.028	1.5	N/A	ND	PASS
Fenhexamid				NT	
Fenpyroximate				NT	
Flonicamid				NT	
Fludioxonil				NT	
Hexythiazox	0.01 / 0.04	2	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	3	N/A	ND	PASS
Kresoxim-methyl				NT	
Malathion	0.02 / 0.05	5	N/A	ND	PASS
Metalaxyl				NT	
Methomyl				NT	
Myclobutanil	0.03 / 0.1	9	N/A	ND	PASS
Naled				NT	
Oxamyl				NT	
Pentachloronitrobenzene*				NT	
Permethrin	0.03 / 0.09	20	N/A	ND	PASS
Phosmet				NT	
Piperonylbutoxide	0.003 / 0.009	8	±0.0005	0.017	PASS
Prallethrin				NT	
Propiconazole	0.01 / 0.03	20	N/A	ND	PASS
Pyrethrins				NT	
Pyridaben				NT	
Spinetoram				NT	
Spinosad				NT	
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Spirotetramat				NT	
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Thiamethoxam				NT	
Trifloxystrobin	0.01 / 0.03	30	N/A	ND	PASS



 **Residual Solvents Analysis**


CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 11/15/2020  **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 - 11/15/2020  **PASS**

Acetone	20 / 50	5000	N/A	ND	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS
Butane	10 / 50	5000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	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	ND	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Pentane	20 / 50	5000	N/A	ND	PASS
Propane	10 / 20	5000	N/A	ND	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS

 **Heavy Metals Analysis**

HEAVY METALS TEST RESULTS - 11/15/2020  **PASS**

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

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

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

