

SAMPLE NAME: CHILL

Other

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR

Business Name: Tonic CBD

License Number:

Address: 2466 Pennsylvania Ave
Sayre PA 18840

SAMPLE DETAIL

Batch Number: 2-0124B

Sample ID: 200909L014

Date Collected: 09/09/2020

Date Received: 09/09/2020

Batch Size:

Sample Size: 14.4 Gram(s)

Unit Mass: 30.612 Grams per Unit

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 31 mg/unit

Total CBD: 803.136 mg/unit

Sum of Cannabinoids: 875.748 mg/unit

Total Cannabinoids: 868.084 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: 1.0204 g/mL

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

Pesticides: NT

Mycotoxins: NT

Residual Solvents: ✔ **PASS**

Heavy Metals: NT

Microbial Impurities (PCR): ✔ **PASS**

Microbial Impurities (Plating): NT

Foreign Material: NT

Water Activity: 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)

Ali Bradford
 LQC verified by: Alexandria Bradford
 Date: 09/12/2020

Josh Wurze
 Approved by: Josh Wurze, President
 Date: 09/12/2020



CANNABINOID TEST RESULTS - 09/11/2020

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

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

TOTAL THC: 31 mg/unit

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

TOTAL CBD: 803.136 mg/unit

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

TOTAL CANNABINOIDS: 868.084 mg/unit

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

TOTAL CBG: ND

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

TOTAL THCV: ND

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

TOTAL CBC: 28.224 mg/unit

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

TOTAL CBDV: 4.071 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	± 1.2567	26.236	2.6236
$\Delta 9\text{THC}$	0.002 / 0.005	± 0.0890	1.263	0.1263
CBC	0.003 / 0.010	± 0.0382	0.922	0.0922
CBDV	0.002 / 0.007	± 0.0070	0.133	0.0133
CBL	0.003 / 0.008	± 0.0015	0.032	0.0032
CBN	0.001 / 0.004	± 0.0008	0.022	0.0022
$\Delta 8\text{THC}$	0.01 / 0.02	N/A	ND	ND
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
CBG	0.002 / 0.005	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			28.608 mg/g	2.8608%

Unit Mass: 30.612 Grams per Unit

$\Delta 9\text{THC}$ per Unit	38.663 mg/unit
Total THC per Unit	31 mg/unit
CBD per Unit	803.136 mg/unit
Total CBD per Unit	803.136 mg/unit
Sum of Cannabinoids per Unit	875.748 mg/unit
Total Cannabinoids per Unit	868.084 mg/unit

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

1.0204 g/mL
Tested 09/11/2020
Method: QSP - (1152) Sample Preparation

VISCOSITY TEST RESULT

Not Tested



 **Residual Solvents Analysis**


CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 09/12/2020  **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 - 09/12/2020  **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



 **Microbial Impurities Analysis**
 PCR AND PLATING

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

Method: QSP - (1221) Analysis of Microbial Impurities

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbial impurities.

Method: QSP - (6794) Plating with 3M™ Petrifilm™

MICROBIAL IMPURITIES TEST RESULTS (PCR) - 09/11/2020 ✔ 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>		NT	
<i>Aspergillus flavus</i>		NT	
<i>Aspergillus niger</i>		NT	
<i>Aspergillus terreus</i>		NT	

MICROBIAL IMPURITIES TEST RESULTS (PLATING)

COMPOUND	RESULT (cfu/g)
Aerobic Plate Count	NT
Total Yeast and Mold	NT

