

Certificate ID: **25953**

Client Sample ID: **0227**

Matrix: **Tincture - Vegetable Oil**

Date Received: **1/18/2018**



This test method was performed in accordance with the requirements of ISO/IEC 17025. The sample was provided to the laboratory by the client and tested as received. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

Authorization: Chris Hudalla, Chief Science Officer	Signature: <i>Christopher Hudalla</i>	Date: 1/30/2018
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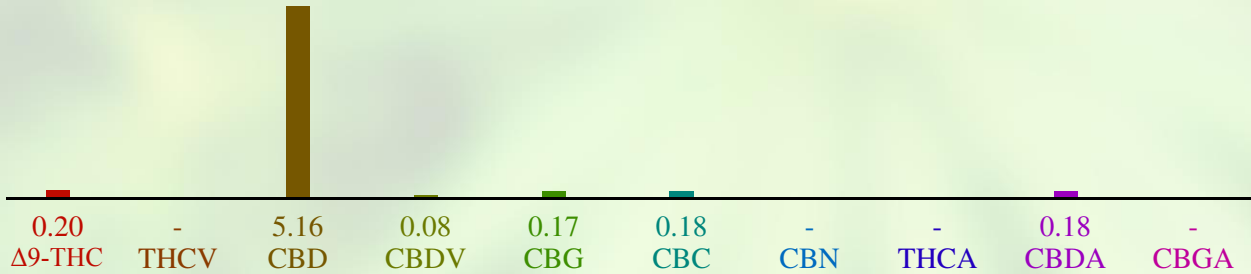
CN: Cannabinoid Profile & Potency [WI-10-04]

Analyst: JFD

Test Date: 1/30/2018

The client sample was analyzed for plant-based cannabinoids by Convergence Chromatography (CC). The collected data was compared to data collected for certified reference standards at known concentrations.

25953-CN



ID	Weight %	Conc.
Δ^9 -THC	0.20 wt %	1.88 mg/mL
THCV	ND	ND
CBD	5.16 wt %	47.85 mg/mL
CBDV	0.08 wt %	0.72 mg/mL
CBG	0.17 wt %	1.62 mg/mL
CBC	0.18 wt %	1.67 mg/mL
CBN	0.01 wt %	0.09 mg/mL
THCA	ND	ND
CBDA	0.18 wt %	1.63 mg/mL
CBGA	ND	ND
Total	5.98 wt%	55.46 mg/mL
Max THC	0.20 wt%	1.88 mg/mL
Max CBD	5.32 wt%	49.28 mg/mL



Ratio of Total CBD to THC 26.6:1

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. ND = None detected above the limits of detection (LLD)

HM: Heavy Metal Analysis [WI-10-13]

Analyst: JFD

Test Date: 1/24/2018

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25953-HM

Symbol	Metal	Conc. ¹	Units	MDL	Use Limits ²		Units	Status
					All	Ingestion		
As	Arsenic	ND	µg/kg	4	200	1500	µg/kg	PASS
Cd	Cadmium	1	µg/kg	1	200	500	µg/kg	PASS
Hg	Mercury	ND	µg/kg	2	100	1500	µg/kg	PASS
Pb	Lead	45	µg/kg	2	500	1000	µg/kg	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

MY: Mycotoxin Testing [WI-10-05]

Analyst: CJB

Test Date: 1/22/2018

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25953-MY

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	1/22/2018	< MDL	3 ppb	< 20 ppb	PASS
Total Ochratoxin	1/22/2018	< MDL	2 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-10-11]

Analyst: KSB

Test Date: 1/24/2018

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

25953-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.2	500	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.1	200	PASS
Bifenazate	149877-41-8	ND	ppb	0.1	200	PASS
Bifenthrin	82657-04-3	ND	ppb	0.2	200	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.5	1000	*
Daminozide	1596-84-5	ND	ppb	10	1000	PASS
Dichlorvos	62-73-7	ND	ppb	3	100	*
Etoxazole	153233-91-1	ND	ppb	0.1	200	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.1	200	PASS
Imazalil	35554-44-0	ND	ppb	0.1	200	PASS
Imidacloprid	138261-41-3	ND	ppb	0.1	400	PASS
Myclobutanil	88671-89-0	ND	ppb	0.1	200	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.1	400	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.1	2000	PASS

Pyrethrin	8003-34-7	ND	ppb	0.1	1000	PASS
Spinosad	168316-95-8	ND	ppb	0.1	200	PASS
Spiromesifen	283594-90-1	ND	ppb	0.1	200	PASS
Spirotetramat	203313-25-1	ND	ppb	0.1	200	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.1	200	PASS

* Testing limits established by the State of Oregon: OAR 333-007-0400, Table 3. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample.

END OF REPORT