

Certificate ID: **118594**

Received: **08/08/23**

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**Vance Global Inc.**

**1575 S 38th Street**

**Milwaukee, WI 53215**

**Attn: Brandon Marhal**

Client Sample ID: **Vance Global HHC**

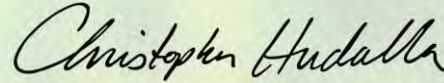
Lot Number: **VGWL019926**

Matrix: **Flowers/Bud - Pre-Rolls or Cones**

Authorization:

Chris Hudalla, Chief Science Officer

Signature:



Date:

08/15/2023



The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]**

**Analyst: PK**

**Test Date: 08/14/2023**

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations. In addition to compounds reported here, multiple cannabinoid isomers or byproducts, which do not occur naturally, were observed in this sample and cannot be identified. No toxicity data is available for these unknown compounds, and as such would not be recommended for human consumption. As non-natural synthetic cannabinoids, these would not be exempted from the Controlled Substance Act (CSA).

**118594-CN**

ID	Weight %	Concentration (mg/g)		
<b>Δ9-THC</b>	<b>0.0114</b>	<b>0.114</b>		
THCV	ND	ND		
CBD	0.216	2.16		
CBDV	ND	ND		
CBG	ND	ND		
CBC	ND	ND		
CBN	ND	ND		
THCA	0.139	1.39		
CBDA	4.79	47.9		
CBGA	ND	ND		
<b>Δ8-THC</b>	<b>0.101</b>	<b>1.01</b>		
exo-THC	ND	ND		
Total	5.26	52.6	0%	Cannabinoids (wt%) 4.79%
Max THC	0.133	1.33		Limit of Quantitation (LOQ) = 0.0068 wt%
Max CBD	4.42	44.2		Limit of Detection (LOD) = 0.0023 wt%

**Ratio of Total CBD to THC 33.2:1**

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. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND=None detected above the limits of detection (LOD), which is one third of Limit of Quantification (LOQ). For values reported as "<LOQ", the estimated value is included in the calculated Total.

**HHC: Analysis of Hexahydrocannabinol***Analyst: JFD**Test Date: 08/14/2023*

This sample was analyzed using Liquid Chromatography (LC) with PDA detection. The collected data was compared with a single point calibration, with estimated concentration reported based on relative response.

**118594-HHC**

Compound	CAS	Amount (Weight %)	Concentration (mg/g)
HHC	6692-85-9	5.56	55.6

ND=Not Detected at a level less than LOD. This method is outside Proverde Laboratories ISO 17025:2017 Scope of Accreditation.



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

Analyst: CJS

Test Date: 08/14/2023

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**118594-HM**

Symbol	Metal	Conc. <sup>1</sup> (µg/kg)	RL	Use Limits <sup>2</sup> (µg/kg)		Status
				All	Ingestion	
As	Arsenic	ND	50.0	200	1,500	PASS
Cd	Cadmium	ND	50.0	200	500	PASS
Hg	Mercury	ND	50.0	100	1,500	PASS
Pb	Lead	ND	50.0	500	1,000	PASS

1) ND = None detected above the indicated Reporting Limit (RL)

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.

**MBI: Microbiological Contaminants [WI-10-09]**

Analyst: MM

Test Date: 08/14/2023

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**118594-MBI**

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	100,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	1,000 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	1,000 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	10,000 CFU/g	PASS

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts. Note: All recorded Microbiological tests are within the established limits.

**MY: Mycotoxin Testing [WI-10-05]**

Analyst: BMJ

Test Date: 08/14/2023

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**118594-MY**

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	11/15/2022	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	11/15/2022	< MDL	3 ppb	< 20 ppb	PASS

**PST: Pesticide Analysis [WI-10-11]**

Analyst: CJR

Test Date: 08/14/2023

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).

**118594-PST**

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	10	PASS
Spinosad	168316-95-8	ND	ppb	0.10	10	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	100	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	100	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	100	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	3000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	100	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	5000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	100	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	2000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	3000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	100	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	100	PASS

\* Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. 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 due to matrix interference.



**VC: Analysis of Volatile Organic Compounds [WI-10-28]**

Analyst: CJS

Test Date: 08/14/2023

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

**118594-VC**

Compound	CAS	Amount <sup>1</sup>	Limit <sup>2</sup>	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

(\*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

**END OF REPORT**