



## CERTIFICATE OF QUALITY ASSURANCE

**PRODUCT NAME:** THC-Free Phytocannabinoid-Rich Hemp Oil

**PRODUCT CODE:** T-NO-1,500mg/1oz-MI-STD-BULK

**LOT NUMBER:** JP112218T (Sales Order# TOSM-012-JH-FF, 757.5 g cannabinoids, Total of 14,000 g Oil)

**OIL BATCH NUMBER:** CONO18-83

**DATE OF MANUFACTURE:** 22Nov2018

*Expiration date is 24 months under sealed conditions.*

**ACTIVE INGREDIENT:** THC-Free Phytocannabinoid-Rich Hemp Oil

**INACTIVE INGREDIENTS:** Grape Seed Oil, Hemp Seed Oil, Peppermint Oil, Stevia

Attributes	Acceptance Criteria	Results	Test Method
Appearance	Viscous Amber Oil Possible Crystal Formation	Conforms	QCU002
Odor	Characteristic	Conforms	QCU002
Color	Dark Green	Conforms	QCU002
Dissolution	Not cloudy or turbid, characteristic color	Conforms	QCU002
Cannabinoid Content	80% total Phytocannabinoids, THC - report results	1,500 mg total Phytocannabinoids per 1 oz, THC Not Detected	QCU001
Microbial Testing	Total Aerobic Count <2000 CFU/g Total Yeast & Mold <200 CFU/g	Conforms	USP<2021>

Package	Acceptance Criteria	Results
Primary Package	Container dedusted and wiped clean. Container caps screwed on tight	Conforms
Secondary Package	Carton Sturdy and clean. Sufficient cushion material exists. Carton taped on all sides	Conforms

**Note:** When sampling, manufacturing, or formulating with this oil, the oil MUST first be heated and liquefied at 70-75°C and mixed thoroughly. Attempting to sample the oil when it is in a semi-solid state will not result in accurate analytical results.

**Storage:** Room Temperature. Protect from Light.



## CERTIFICATE OF INTERNAL ANALYSIS

**TYPE:** Phytocannabinoid-Rich Hemp Oil/ THC-free **TERPENE RESULTS\*:**

**BATCH No:** CONO18-83

**Date of Manufacture:** 21Nov2018

**Date of Analysis:** 22Nov2018

### POTENCY RESULTS:

Cannabinoid	Wt. (%)	(mg/g)
CBD	87.24	872.36
CBG	< 0.03	< 0.30
CBN	< 0.03	< 0.30
THC	ND**	ND**
CBC	< 0.03	< 0.30
THC-A	ND**	ND**
CBD-A	< 0.03	< 0.30
MAX THC	ND**	ND**
MAX CBD	87.24	872.36
TOTAL ACTIVE	87.24	872.36

### Residual Solvents\*:

Propane	Compliant with USP<467>	Pentane	Compliant with USP<467>
Isobutane	Compliant with USP<467>	Isopropanol	Compliant with USP<467>
Butane	Compliant with USP<467>	Hexane	Compliant with USP<467>
Ethanol	Compliant with USP<467>	Acetone	Compliant with USP<467>

### Heavy Metals\*:

Cadmium	Compliant with USP<233>
Lead	Compliant with USP<233>
Arsenic	Compliant with USP<233>
Mercury	Compliant with USP<233>

	Wt. (%)		Wt. (%)
β-Bisabolene	1.0-3.0	Camphene	0.1-0.2
β-Farnesene	1.0-2.0	E-Farnesene	0.1-0.2
Gualol	0.5-2.0	Farnesol	0.1-0.2
β-Maaliene	0.5-2.0	α-Bisabolol	< 0.1
Calarene	0.5-1.5	P-Cymene	< 0.1
β-Caryophyllene	0.1-1.0	Linalool	< 0.1
α-Humulene	0.1-1.0	Myrcene	< 0.1
Cadinene	0.1-1.0	Phytol	< 0.1
α-Gurjunene	0.1-0.5	Isopulegol	< 0.1
d-Limonene	0.1-0.5	Terpinene	< 0.1
Nerolidol	0.1-0.5	Geraniol	< 0.1
α-Pinene	0.1-0.5	Myrcene	< 0.1
Aristolene	0.1-0.3	γ-Terpinene	< 0.1
Eucalyptol	0.1-0.2	δ-3-Carene	< 0.1

### Pesticides\*:

Acequinocyl	ND***	Spinosad	ND***
Pyrethrium	ND***	Spirotetramat	ND***
Spiromesifen	ND***	Bifenazate	ND***
Abamectin	ND***	Fenoxycarb	ND***
Imidacloprid	ND***	Paclitaxel	ND***

Test ID: 1121185A

\*Batches are sent out regularly for testing, not all batches tested

\*\* ND = Not Detected using a validated high-performance liquid chromatography test method, LOD = 0.03%

\*\*\* Pesticides are tested by a third party lab, ND = Not Detected at the Reporting Limit (RL)

**SPECIAL NOTE:** Process enhancement has recently been implemented to remove excess pigmentation from the oil due to customer requests. While the color of the future oil batches will be golden to light amber, its composition and the full spectrum characteristics remain unchanged.