

**Report To:**

Connecticut Pharmaceutical Solutions

Attn: Rino Ferrarese, Ryan Picard& Kim Provera & Nancy Poltrack

47 Lower Main St

Portland CT 06480

Date Received: **10/12 & 10/18 2018**Date Tested: **10/15 & 10/19 2018**Laboratory Report#: **NCPS011419-08**Report Date: **01/14/2019**E-Mail: rino.ferrarese@ctpharma.comryan.picard@ctpharma.comkim.provo@ctpharma.comnpoltrack@ctpharma.com

<u>Sample Site:</u>	CONNECTICUT PHARMACEUTICAL SOLUTIONS • 47 LOWER MAIN STREET, PORTLAND CT		
<u>Date Collected:</u>	10/12/2018 & 10/18/2018	Collected by: CA of NELabs	
<u>Laboratory ID #:</u>	<u>1875398 – 01 / 1875464 – 05</u> <u>OC 0146</u>		
<u>Product Description:</u>	(derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Recommended Limits *</u>	
Total Aerobic Microbial Count	1,400	per gram	PASS	100,000
Total Yeast & Mold Count	2,600	per gram	PASS	10,000
Bile Tolerant Gram Negative Bacteria (10/18 re-test)	<100	per gram	PASS	1,000
Coliform (10/18 re-test)	<100	per gram	PASS	1,000
Enteropathogenic E.coli	Not Detected	per gram	PASS	Not Detected
Salmonella species	Not Detected	per gram	PASS	Not Detected

*** RECOMMENDED LIMITS:** per American Herbal Pharmacopoeia (2013)**PASS =** Product meets Microbial and Fungal Recommended Limits
per American Herbal Pharmacopoeia (2013)**METHODS:** USP 2021, USP 2022, FDA-BAM, AOAC 996.09**Comments:**

- Results are based on samples submitted to Northeast Laboratories, Inc. on: 10/12/2018 & 10/18/2018

Approved By:

Alan C. Johnson, Laboratory Director

Northeast Laboratories, Inc. 129 Mill Street Berlin, CT 06037 www.nelabsct.com

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CT Cert. #PH-0404 EPA Cert. #CT-024 USDA Cert. #0976 FDA Reg. #086650488 DEA Reg.: Federal #RN0281852 + CT #624

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Attn: Rino Ferrarese, Ryan Picard
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Date Received: **12/03 & 12/07 & 12/28 2018**Date Tested: **12/04 & 12/08 & 12/29 2018**Laboratory Report#: **NCPS011419-08**Report Date: **01/14/2019**

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<u>Date Collected:</u>	12/03/2018 & 12/07/2018 & 12/28/2018	Collected by: CA of NELabs	
<u>Laboratory ID #:</u>	<u>1875851-01 / 1875945-03 / 1876142-11 / 1876142-17</u>		
	<u>OC 0146</u>		
<u>Product Description:</u>	(derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

Parameter	Result	Units	Recommended Limits *	
Total Aerobic Microbial Count (12/7 re-test)	12,000	per gram	PASS	100,000
Total Yeast & Mold Count (12/28 re-test BT-15)	5,600	per gram	PASS	10,000
Total Yeast & Mold Count (12/28 re-test BT-81)	8,200	per gram	PASS	10,000
Bile Tolerant Gram Negative Bacteria	200	per gram	PASS	1,000
Coliform	200	per gram	PASS	1,000
Enteropathogenic E.coli	Not Detected	per gram	PASS	Not Detected
Salmonella species	Not Detected	per gram	PASS	Not Detected

* **RECOMMENDED LIMITS:** per American Herbal Pharmacopoeia (2013)

PASS = Product meets Microbial and Fungal Recommended Limits
 per American Herbal Pharmacopoeia (2013)

METHODS: USP 2021, USP 2022, FDA-BAM, AOAC 996.09**Comments:**

- Results are based on samples submitted to Northeast Laboratories, Inc. on: 12/03 & 12/07 2018
- Yeast & Mold Count results are based only on samples of Lots BT-15 and BT-81 submitted to Northeast Laboratories, Inc. on: 12/28/2018.

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Date Received: 10/12 & 12/03 2018

Date Tested: 10/18-10/19 & 12/11-12/13 2018

Laboratory Report#: NCPS011419-08

Report Date: 01/14/2019

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<u>Laboratory ID #:</u>	<u>1875398 – 01 / 1875851 – 01</u>		
<u>Product Description:</u>	<u>OC 0146</u> (derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

HEAVY METALS:				
<u>Parameter</u>	<u>Result</u>	<u>Units</u>		<u>Limits</u>
Arsenic, Total	<0.0005	µg/kg BW/day	PASS	<0.14
Cadmium, Total	<0.002	µg/kg BW/day	PASS	<0.09
Lead, Total	<0.002	µg/kg BW/day	PASS	<0.29
Mercury, Total	<0.005	µg/kg BW/day	PASS	<0.29

Daily Dose: 1 gram**Body Weight:** 50 kilograms**METHODS:** USP <232> and <233> (Modified)

AOAC 986.15, 935.50, 971.21

FCC 7, Appendix 3

LIMITS: per American Herbal Pharmacopoeia (2013)**PASS** = Product meets Heavy Metals Recommended Limits
per American Herbal Pharmacopoeia (2013)**Comments:**

- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 10/12 & 12/03 2018

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<u>Sample Site:</u>	CONNECTICUT PHARMACEUTICAL SOLUTIONS		
	• 47 LOWER MAIN STREET, PORTLAND CT		
<u>Date Collected:</u>	01/07/2019 11:25	Collected by: WC of NELabs	
<u>Laboratory ID #:</u>	<u>1976198-08</u>		
	<u>OC 0146</u>		
<u>Product Description:</u>	(derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

EXPANDED TERPENES (% Dry Weight)	Result	Units
a-pinene	0.29	%
camphene	---	%
sabinene	---	%
b-pinene	0.19	%
b-myrcene	0.38	%
a-phellandrene	---	%
3-carene	---	%
a-terpinene	---	%
limonene	0.33	%
eucalyptol	---	%
ocimene	---	%
b-terpinene	---	%
terpineol	---	%
terpinolene	---	%
linalool	0.48	%
(+)-fenchone	---	%
L(-)-fenchone	---	%
fenchol	---	%
(-)-isopulegol	---	%
camphor	---	%
isoborneol	---	%
(-)-borneol	---	%

METHODS: GC, GC/MS**Comments:**

- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 01/07/2019

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<u>Product Description:</u>	(derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

EXPANDED TERPENES (% Dry Weight)	Result	Units
menthol	---	%
geraniol	---	%
nerol	---	%
(+)-pulegol	---	%
trans-b-farnesene	---	%
geranyl acetate	---	%
a-cedrene	---	%
b-caryophyllene	0.79	%
b-farnesene	---	%
humulene	0.65	%
a-farnesene	---	%
valencene	---	%
cis-nerolidol	---	%
trans-nerolidol	---	%
guaiol	---	%
caryophyllene oxide	---	%
cedrol	---	%
b-eudesmol	---	%
a-bisabolol	---	%

Density	1.0054	g/cm ³
Residual Alcohol	3.14	%

METHODS: GC, GC/MS**Comments:**

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<u>Product Description:</u>	(derived as follows : OC 0146 ← PNE040618/032618 ← PNE061918)		

PESTICIDES LC (MS/MS)				
Parameter	Result	Units		Limits
Abamectin	<0.01	mg/kg	PASS	15
Acequinocyl	<0.01	mg/kg	PASS	14
Azadiractin	<0.01	mg/kg	PASS	60
Bifenazate	<0.01	mg/kg	PASS	6
Bifenthrin	<0.01	mg/kg	PASS	12
Chlormequat Chloride	<0.01	mg/kg	PASS	30
Cyfluthrin	<0.01	mg/kg	PASS	12
Daminozide	<0.01	mg/kg	PASS	270
Etoxazole	<0.01	mg/kg	PASS	24
Fenoxycarb	<0.01	mg/kg	PASS	32
Imazalil	<0.01	mg/kg	PASS	6
Imidacloprid	<0.01	mg/kg	PASS	36
Myclobutanil	<0.01	mg/kg	PASS	18
Paclobutrazol	<0.01	mg/kg	PASS	13
Pyrethrum	<0.01	mg/kg	PASS	3
Spinosad	<0.01	mg/kg	PASS	12
Spiromesifen	<0.01	mg/kg	PASS	15
Spirotetramat	<0.01	mg/kg	PASS	30
Trifloxystrobin	<0.01	mg/kg	PASS	60

LOQ = 1.0 µg/kg LOD = 0.1 µg/kg

METHODS: LC – MS/MS (Restek Method)**LIMITS:** per FAO - WHO**Comments:**

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<u>MYCOTOXINS</u>				
<u>Parameter</u>	<u>Result</u>	<u>Units</u>		<u>Limits</u>
<u>Method: USP 561-II</u>				
Aflatoxin B1	<5	µg/kg	PASS	5
Aflatoxin B2	<5	µg/kg	PASS	5
Aflatoxin G1	<5	µg/kg	PASS	5
Aflatoxin G2	<5	µg/kg	PASS	5
<u>Method: USP 561-II (Mod)</u>				
Ochratoxin-A	<5	µg/kg	PASS	5

METHODS: USP <561>

Articles of Botanical Origin: Aflatoxins Method 2 (modified for Ochratoxin)

LIMITS: per American Herbal Pharmacopoeia (2013)**Comments:**

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	<u>OC 0146</u>		
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<u>CANNABINOIDS (% weight)</u>	<u>Result</u>	<u>Units</u>
CBDV	----	% weight
CBDA	----	% weight
CBGA	2.18	% weight
CBG	----	% weight
CBD	----	% weight
THCV	----	% weight
CBN	----	% weight
d9-THC	19.45	% weight
d8-THC	----	% weight
CBL	----	% weight
CBC	----	% weight
THCA	69.71	% weight

METHODS: HPLC**Comments:**

- Results are based on C sample submitted to Northeast Laboratories, Inc. on: 01/07/2019


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