Analytical Report

Report To:
Connecticut Pharmaceutical Solutions
Attn: Rino Ferrarese, Ryan Picard
& Kim Provera & Nancy Poltrack
47 Lower Main St
Portland CT 06480

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Date Received: **12/03 & 12/07 & 12/28 2018**

Date Tested: **12/04 & 12/08 & 12/29 2018**

Laboratory Report#: **NCPS022819-03**

Report Date: **02/28/2019**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**12/03/2018 & 12/07/2018 & 12/28/2018** **Collected by: CA of NELabs**
0aboratory ID #:	**1875851-01 / 1875945-03 / 1876142-11 / 1876142-17**
Product Description:	**PR 0003** (derived as follows： PR0003 ← 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.

Approved By:
Alan C. Johnson, Laboratory Director

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Date Received: **12/03/2018**
Date Tested: **12/11 – 12/13 2018**
Laboratory Report#: **NCPS022819-03**
Report Date: **02/28/2019**

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Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**12/03/2018 10:00** **Collected by: CA of NELabs**
Laboratory ID #:	**1875851-01**
Product Description:	**PR 0003** (derived as follows： PR0003 ← PNE061918)

HEAVY METALS:

Parameter	Result	Units		Limits
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: 12/03/2018

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Date Received: **02/08/2019**

Date Tested: **02/12/2019**
Laboratory Report#: **NCPS022819-03**

Report Date: **02/28/2019**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**02/08/2019 12:30 Collected by: CA of NELabs**
Laboratory ID #:	**1976543-09**
Product Description:	**PR 0003** (derived as follows : PR0003 ← PNE061918)

EXPANDED TERPENES (% Dry Weight)	**Result**	**Units**
a-pinene	0.19	%
camphene	---	%
sabinene	---	%
b-pinene	0.08	%
b-myrcene	0.04	%
a-phellandrene	---	%
3-carene	---	%
a-terpinene	---	%
limonene	---	%
eucalyptol	---	%
ocimene	---	%
b-terpinene	---	%
terpineol	---	%
terpinolene	---	%
linalool	0.10	%
(+)-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: 02/08/2019

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Date Received: **02/08/2019**

Date Tested: **02/12/2019**

Laboratory Report#: **NCPS022819-03**

Report Date: **02/28/2019**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**02/08/2019 12:30 Collected by: CA of NELabs**
Laboratory ID #:	**1976543-09**
Product Description:	**PR 0003** (derived as follows : PR0003 ← PNE061918)

EXPANDED TERPENES (% Dry Weight)	**Result**	**Units**
menthol	---	%
geraniol	---	%
nerol	---	%
(+)-pulegol	---	%
trans-b-farnesene	---	%
geranyl acetate	---	%
a-cedrene	---	%
b-caryophyllene	0.94	%
b-farnesene	---	%
humulene	0.36	%
a-farnesene	---	%
valencene	---	%
cis-nerolidol	---	%
trans-nerolidol	---	%
guaiol	0.10	%
caryophyllene oxide	---	%
cedrol	---	%
b-eudesmol	---	%
a-bisabolol	0.11	%

METHODS: **GC, GC/MS**

Comments:

- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 02/08/2019

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Date Received: **12/03/2018**
Date Tested: **12/04/2018**
Laboratory Report#: **NCPS022819-03**
Report Date: **02/28/2019**

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Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**12/03/2018 10:00 Collected by: CA of NELabs**
Laboratory ID #:	**1875851-01**
Product Description:	**PR 0003** (derived as follows： PR0003 ← PNE061918)

PESTICIDES LC (MS/MS)

Parameter	Result	Units		Limits
Abamectin	<0.1	mg/kg	PASS	15
Acequinocyl	<0.1	mg/kg	PASS	14
Azadiractin	<0.1	mg/kg	PASS	60
Bifenazate	<0.1	mg/kg	PASS	6
Bifenthrin	<0.1	mg/kg	PASS	12
Chlormequat Chloride	<0.1	mg/kg	PASS	30
Cyfluthrin	<0.1	mg/kg	PASS	12
Daminozide	<0.1	mg/kg	PASS	270
Etoxazole	<0.1	mg/kg	PASS	24
Fenoxycarb	<0.1	mg/kg	PASS	32
Imazalil	<0.1	mg/kg	PASS	6
Imidacloprid	<0.1	mg/kg	PASS	36
Myclobutanil	<0.1	mg/kg	PASS	18
Paclobutrazol	<0.1	mg/kg	PASS	13
Pyrethrum	<0.1	mg/kg	PASS	3
Spinosad	<0.1	mg/kg	PASS	12
Spiromesifen	<0.1	mg/kg	PASS	15
Spirotetramat	<0.1	mg/kg	PASS	30
Trifloxystrobin	<0.1	mg/kg	PASS	60

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

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

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Date Received: **12/03/2018**

Date Tested: **12/04/2018**
Laboratory Report#: **NCPS022819-03**

Report Date: **02/28/2019**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**12/03/2018 10:00 Collected by: CA of NELabs**
Laboratory ID #:	**1875851-01**
Product Description:	**PR 0003** (derived as follows： PR0003 ← PNE061918)

MYCOTOXINS

Parameter	Result	Units		Limits
Method: USP 561-II				
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
Method: USP 561-II (Mod)				
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:
- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 12/07/2018

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Date Received: **02/19/2019**

Date Tested: **02/21/2019**
Laboratory Report#: **NCPS022819-03**

Report Date: **02/28/2019**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**02/19/2019 14:00 Collected by: CA of NELabs**
Laboratory ID #:	**1976636-15**
Product Description:	**PR 0003** (derived as follows： PR0003 ← PNE061918)

CANNABINOIDS (% weight)	Result	Units
CBDV	----	% weight
CBDA	----	% weight
CBGA	1.07	% weight
CBG	----	% weight
CBD	----	% weight
THCV	----	% weight
CBN	----	% weight
d9-THC	2.89	% weight
d8-THC	----	% weight
CBL	----	% weight
CBC	----	% weight
THCA	41.22	% weight

METHODS: **HPLC**

Comments:
- Results are based on an average of 3 samples submitted to Northeast Laboratories, Inc. on: 02/19/2019

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Alan C. Johnson, Laboratory Director