

**Report To:**

Connecticut Pharmaceutical Solutions
Attn: Rino Ferrarese, Mark June-Wells
& Kim Provera & Nancy Poltrack

47 Lower Main St
Portland CT 06480

Date Received: 10/12/2017

Date Tested: 10/13/2017

Laboratory Report#: NCPS102517-04

Report Date: 10/25/2017

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<u>Sample Site:</u>	CONNECTICUT PHARMACEUTICAL SOLUTIONS • 47 LOWER MAIN STREET, PORTLAND CT		
<u>Date Collected:</u>	10/12/2017 11:15	Collected by: CA of NELabs	
<u>Laboratory ID #:</u>	<u>1771860 – 02</u>		
<u>Product Description:</u>	APO 051217		

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Recommended Limits *</u>	
Total Aerobic Microbial Count	450	per gram	PASS	100,000
Total Yeast & Mold Count	3,100	per gram	PASS	10,000
Bile Tolerant Gram Negative Bacteria	<100	per gram	PASS	1,000
Coliform	<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 sample/s submitted to Northeast Laboratories, Inc. on: 10/12/2017

Approved By:

Alan C. Johnson, Laboratory Director

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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:

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Approved By:

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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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EXPANDED TERPENES (% Dry Weight)	Result	Units
a-pinene	---	%
camphene	---	%
sabinene	---	%
b-pinene	---	%
b-myrcene	0.16	%
a-phellandrene	---	%
3-carene	---	%
a-terpinene	---	%
limonene	0.10	%
eucalyptol	---	%
ocimene	---	%
b-terpinene	---	%
terpineol	---	%
terpinolene	---	%
linalool	0.45	%
(+)-fenchone	---	%
L(-)-fenchone	---	%
fenchol	---	%
(-)-isopulegol	---	%
camphor	---	%
isoborneol	---	%
(-)-borneol	---	%

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

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Product Description:	APO 051217		

EXPANDED TERPENES (% Dry Weight)	Result	Units
menthol	---	%
geraniol	---	%
nerol	---	%
(+)-pulegol	---	%
trans-b-farnesene	---	%
geranyl acetate	---	%
a-cedrene	---	%
b-caryophyllene	1.52	%
b-farnesene	---	%
humulene	0.17	%
a-farnesene	---	%
valencene	---	%
cis-nerolidol	---	%
trans-nerolidol	---	%
guaiaol	0.48	%
caryophyllene oxide	---	%
cedrol	---	%
b-eudesmol	---	%
a-bisabolol	---	%

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

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<u>Product Description:</u>	APO 051217		

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>Product Description:</u>	APO 051217		

<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>Date Collected:</u>	10/20/2017 11:15	Collected by: CA of NELabs	
<u>Laboratory ID #:</u>	<u>1771942 – 10</u>		
<u>Product Description:</u>	APO 051217 (A-B-C)		

<u>CANNABINOIDS (% weight)</u>	<u>Result</u>	<u>Units</u>
CBDV	----	% weight
CBDA	----	% weight
CBGA	1.37	% weight
CBG	0.17	% weight
CBD	----	% weight
THCV	----	% weight
CBN	----	% weight
d9-THC	0.49	% weight
d8-THC	----	% weight
CBL	----	% weight
CBC	----	% weight
THCA	26.03	% weight

METHODS: HPLC

Comments:

- Results are based on an average of 3 samples (A-B-C) submitted to Northeast Laboratories, Inc. on: 10/20/2017

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