Analytical Report

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/06/2018**

Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

Parameter	Result	Units		Recommended Limits *
Total Aerobic Microbial Count	4,000	per gram	PASS	100,000
Total Yeast & Mold Count	6,100	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: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/07 – 09/13 2018**

Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

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: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director

Report To:

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/10/2018**
Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

EXPANDED TERPENES (% Dry Weight)	**Result**	**Units**
a-pinene	0.64	%
camphene	---	%
sabinene	---	%
b-pinene	---	%
b-myrcene	3.61	%
a-phellandrene	---	%
3-carene	---	%
a-terpinene	---	%
limonene	---	%
eucalyptol	---	%
ocimene	---	%
b-terpinene	---	%
terpineol	---	%
terpinolene	---	%
linalool	0.09	%
(+)-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: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director

Analytical Report

Report To:

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/10/2018**

Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

EXPANDED TERPENES (% Dry Weight)	**Result**	**Units**
menthol	---	%
geraniol	---	%
nerol	---	%
(+)-pulegol	---	%
trans-b-farnesene	---	%
geranyl acetate	---	%
a-cedrene	---	%
b-caryophyllene	0.14	%
b-farnesene	---	%
humulene	0.06	%
a-farnesene	---	%
valencene	---	%
cis-nerolidol	---	%
trans-nerolidol	---	%
guaiol	---	%
caryophyllene oxide	---	%
cedrol	---	%
b-eudesmol	---	%
a-bisabolol	---	%

METHODS: **GC, GC/MS**

Comments:

- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 09/05/2018

Approved By:

Alan C. Johnson, Laboratory Director

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

Date Received: **09/05/2018**

Date Tested: **09/07 – 09/11 2018**
Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

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:
- Results are based on sample/s submitted to Northeast Laboratories, Inc. on: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/07 – 09/08 2018**

Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

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: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director

Analytical Report

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

E-Mail: rino.ferrarese@ctpharma.com
ryan.picard@ctpharma.com
kim.provo@ctpharma.com
npoltrack@ctpharma.com

Date Received: **09/05/2018**

Date Tested: **09/06/2018**
Laboratory Report#: **NCPS091418-01**

Report Date: **09/14/2018**

Sample Site:	**CONNECTICUT PHARMACEUTICAL SOLUTIONS** • **47 LOWER MAIN STREET, PORTLAND CT**
Date Collected:	**09/05/2018 14:10** **Collected by: CA of NELabs**
Laboratory ID #:	**1875018 – 01**
Product Description:	**HSH 040618**

CANNABINOIDS (% weight)	Result	Units
CBDV	----	% weight
CBDA	----	% weight
CBGA	1.21	% weight
CBG	----	% weight
CBD	----	% weight
THCV	----	% weight
CBN	----	% weight
d9-THC	0.20	% weight
d8-THC	----	% weight
CBL	----	% weight
CBC	----	% weight
THCA	27.59	% weight

METHODS: **HPLC**

Comments:
- Results are based on an average of 3 samples submitted to Northeast Laboratories, Inc. on: 09/05/2018

Approved By:
Alan C. Johnson, Laboratory Director