18-12142

PHARMORE INGREDIENTS

Certificate Of Analysis

MAR 12 2018 #05818 11:42

Customer: Platinum Performance

Customer Item #: ZHYAACID

Customer PO #: 20143

Ship Date: 03/07/2018

Description: Sodium Hyaluronate HA

Lot #: 3951709263X

	Standard	Result *
Physical Properties		
Appearance	White powder	Complies
Bulk Density Loose (gm/cc)	>= 0.15 <= 0.3	0.20
Particle size thru # 80 (%)	>= 90	Complies***
Analytical		
Sodium Hyaluronate (Dry basis, %)	>= 93	94
Hyaluronic Acid (Dry basis, %)	>= 88	89
Glucuronic Acid (Dry basis, %)	>= 45	46
Loss on drying (%)	<= 8.0	7.3
pH	>= 6.0 <= 8.0	6.4
Protein (%)	<= 0.1	0.03
Molecular weight (kDA)	>= 1300 <= 1700	1460
Lead (ppm)	<= 0.5	<0.5
Arsenic (ppm)	<= 1.5	<1.5
Cadmium (ppm)	<= 0.5	<0.5
Mercury (ppm)	<= 0.2	<0.2
Microbiological		
APC (CFU/gm)	<= 1000	<100
Yeast/mold (CFU/gm)	<= 100	Complies
E. coli (CFU/gm)	Negative	Negative
Salmonella (25 gm)	Negative	Negative
Storage Conditions		
Manufacture date		Sep 26, 2017
Expiration date		Sep 26, 2020
Storage		Cool dry place sealed in light resistant container
Manufactured by		Plant # 395
Country of origin		China
Revision #		Rev 9 11/01/2017

12569 S 2700 W, Suite 201, Riverton, Utah 84065, USA Tel 801.446.8188 / Fax 801.446.8187

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	Standard	Result *

Approved By: Warren K. Majerus Date: 3/6/2018

Warren K. Majerus
VP Quality Assurance

* Test results based on information supplied by the manufacturer, unless otherwise noted.
** Based on third party testing lab results.
*** Based on results from Pharmore's sampling protocol.

The information contained in this certificate of analysis is believed to be accurate and is offered in good faith. Pharmore Ingredients, however, cannot assume any guarantee against natural product variations, patent infringement, liabilities or risk involved from the use of this product. Customers' assume all risk and liability with the use of this product.

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PHARMORE INGREDIENTS

SPECIFICATION

Sodium Hyaluronate HA

	Specification		Test Method
Physical Properties			
Appearance	White powder		Visual
Bulk Density Loose (gm/cc)	>= 0.15	<= 0.3	Loose fill
Particle size thru # 80 (%)	>= 90		Rotap 5 minutes
Analytical			
Sodium Hyaluronate (Dry basis, %)	>= 93		By calculation
Hyaluronic Acid (Dry basis, %)	>= 88		By calculation
Glucuronic Acid (Dry basis, %)	>= 45		UV-Vis
Loss on drying (%)		<= 8.0	USP curr. edit.
pH	>= 6.0	<= 8.0	USP curr. edit.
Protein (%)		<= 0.1	USP curr. edit.
Molecular weight (kDA)	>= 1300	<= 1700	USP curr. edit.
Lead (ppm)		<= 0.5	ICP-MS
Arsenic (ppm)		<= 1.5	ICP-MS
Cadmium (ppm)		<= 0.5	ICP-MS
Mercury (ppm)		<= 0.2	ICP-MS
Microbiological			
APC (CFU/gm)		<= 1000	USP curr. edit.
Yeast/mold (CFU/gm)		<= 100	USP curr. edit.
E. coli (CFU/gm)	Negative		USP curr. edit.
Salmonella (25 gm)	Negative		USP curr. edit.
Storage Conditions			
Storage conditions	Cool dry place sealed in light resistant container		
Shelf life	3 years unopened		
Revision #	Rev 9 11/01/2017		

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12569 South 2700 West, Suite 201, Riverton, Utah 84065 (801) 446-8188 tel (801) 446-8187 fax

BLOOMAGE FREDA BIOPHARM CO., LTD.

NO.678 TIANCHEN ST.,HIGH-TECH DEVELOPMENT ZONE,
JINAN, CHINA 250101

CERTIFICATE OF ANALYSIS 17-E100912

Product Name: Hyaluronic Acid (Food Grade)
Batch No.: 1709263X
Quantity: 306.458kg

Standard: SF/JS ZL-005-F-005
Production Date: Sept.26, 2017
Expiry Date: Sept.26, 2020

Item	Standard	Result
1. Description	White powder	White powder
2. Particle size	100% through a USS sieve # 60 (0.25mm)	Complied
3. pH	6.0～8.0	6.4
4. Transparency	≥99%	99.7%
5. Loss on drying	≤8.0%	7.3%
6. Molecular weight (Dalton)	1.3M～1.8M	1.46M
7. Bulk density		0.20g/cm^3
8. Tapped density		0.35g/cm^3
9. Ash	≤13.0%	10.1%
10. Protein	<0.1%	0.026%
11. Heavy metals	≤20ppm	<20ppm
12. Arsenic	≤1.5ppm	<1.5ppm
13. Lead	≤0.5ppm	<0.5ppm
14. Cadmium	≤0.5ppm	<0.5ppm
15. Mercury	≤0.2ppm	<0.2ppm
16. Glucuronic acid	≥45.0%	45.6%
17. HA	≥93%	94.3%
18. APC	≤100cfu/g	Complied
19. Mold & Yeast	≤100cfu/g	Complied
20. E.Coli	Negative	Negative
21. S.Aureus	Negative	Negative
22. S.Apecies	Negative	Negative

Conclusion: up to the standard

Reported by: 李振 2017.10.9

Approved by: 2017.10.9

eurofins | Supplement Analysis Center

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Supplement Analysis Center
1365 Redwood Way
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March 15, 2018

QA Department
Platinum Performance
90 Thomas Rd
Buellton, CA 93427

CERTIFICATE OF ANALYSIS

AR-18-KK-004341-01
Batch #: EUCAPE-00100239

Sample Identification:

Sample #: 740-2018-03130018
Description: TZHYAACID-Hyaluronic Acid, Powder, Lot #18-12142
Condition: Acceptable
Date Received: March 13, 2018

K0148: Moisture %, Loss on Drying
Method Reference: USP <731>
Completed: 03/14/2018

	Result	Calculated	Theoretical Level
Loss on drying	0.449 % (w/w)		

K0222: Hyaluronic Acid Sodium (CE)
Method Reference: Internal Method
Completed: 03/15/2018

	Result	Calculated	Theoretical Level
Hyaluronic Acid Sodium	95.7 % (w/w)	96.1 % (w/w)	> 93 (dry-weight) % (w/w)

Results pertain only to the items tested.
All results are reported on an as-is basis unless otherwise stated.
Estimation of uncertainty of measurement is available upon request.
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Indicates results of tests performed in accordance with *ISO/IEC 17025:2005 Chemical Scope of Accreditation.*

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TESTING CERT #2942.01

Monica Tran
Associate Scientist

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Jeni Rector

From: Allen Gritton <Allen.Gritton@pharmore.com>
Sent: Wednesday, June 13, 2018 12:37 PM
To: 'Jeni Rector'
Cc: Allen Gritton
Subject: FW: Pharmore Ingredients - NASC
Attachments: #18-12142 ZHYAACID EURP.pdf; #18-12142 ZHYAACID VCOA.pdf

Hi Jeni,

I have put a call into Chase and thought his original E-mail may work for you as a description of them changing our lot number to an internal lot number for reference.

[redacted]

Let me know if this works.

Best Regards,

Allen Gritton
Director of Sales

Main:801-446-8188
Cell: 801-856-4748
Fax: 801-446-8187
www.pharmore.com
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From: Chase Millhollen <chase@platinumperformance.com>
Sent: Friday, April 6, 2018 9:18 AM
To: Allen Gritton <Allen.Gritton@pharmore.com>
Cc: Dustin Mojonnier <dustin@platinumperformance.com>
Subject: RE: Pharmore Ingredients - NASC

Allen,

Thanks for the email. Here is a recent lot of HA from you. The 18-12142 is an internal lot # so I attached the original COA which has the internal lot code written on top for cross reference with the Eurofins results.

Best,

Chase Millhollen
Product Development & Sourcing Manager
Platinum Performance, Inc.
Ph. (805) 688 1731
Fx. (805) 693 8682