

Customer:

 LifeVantage Corporation
 C/O Pharmachem Laboratories, LLC

PO #: 16-6469 Ln 2

Customer Part #: 100011 Rev 6 4-8-2014

Ship Date: 8/16/16

Shipment #: 0000007458

Description:

Milk Thistle 80% Silymarin Acetone

Lot #:

325160406BTH-AC

	<u>Standard</u>		<u>Result</u> *
<u>Physical Properties</u>			
Appearance	Yellow brown powder		Complies
Identification	Positive		Complies
Solvent Used	Acetone		Acetone
Carrier Used / Plant Part	None / Seed		None / Seed
Latin Name	Silybum marianum (L.) Gaertn		Silybum marianum (L.) Gaertn
Bulk Density Loose (gm/cc)	>= 0.3	<= 0.6	0.5
Bulk Density Tap (gm/cc)	>= 0.5	<= 0.8	0.7
Particle size thru # 80 (%)	>= 95		>95
<u>Analytical</u>			
Assay (Silymarin, %)	>= 80	<= 85	81
Loss on drying (%)		<= 5.0	2.7
ROI (%)		<= 1.0	0.1
Heavy metals (ppm)		<= 10	<10
Lead (ppm)		<= 0.5	<0.5
Arsenic (ppm)		<= 1	<1
Cadmium (ppm)		<= 0.3	<0.3
Mercury (ppm)		<= 0.1	<0.1
Pesticides Residue	Complies		Complies
Residual Solvent Class 1	None detected		Complies
Res. Solvent Class 2, Hexane (ppm)		<= 290	3
Res. Solvent Class 2, Methanol (ppm)		<= 3000	33
Residual Solvent Class 3 (ppm)		<= 5000	1288
<u>Microbiological</u>			
APC (CFU/gm)		<= 10000	<1000
Yeast/mold (CFU/gm)		<= 1000	<100
E. coli (CFU/gm)	Negative		Negative
Salmonella (25 gm)	Negative		Negative
Coliforms (CFU/gm)		<= 100	<100
S. aureus (CFU/gm)	Negative		Negative
<u>Storage Conditions</u>			
Manufacture date	April 19, 2016		
Expiration date	April 19, 2018		
Storage	Cool dry place sealed in light resistant container		
Manufactured by	Plant # 325		
Country of origin	China		
Revision #	Rev 7 05/21/2015		



Certificate Of Analysis

A handwritten signature in cursive script, appearing to read 'Warren K. Majerus', is written over a horizontal line.

Approved By:

Warren K. Majerus
VP Quality Assurance

Date: 8/12/2016

* 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.



Liver health from LIVERD

CERTIFICATE OF ANALYSIS

Product Name: Silymarin (Milk Thistle P.E.)
Extraction Solvent: Acetone
Packing: 25kg Cardboard Drum
Quantity: 1000kgs
Plant Part to be Used: Seeds

Latin Name: Silybum marianum (L.) Gaertn
Lot No.: 20160406BTH-AC
Manu. Date: Apr 19, 2016
Expiry Date: Apr 18, 2019

No.	Test items	Specification and Standards	Results
1.	Appearance	Amorphous Powder	Conforms
2.	Colour	Yellow to Yellowish-Brown	Conforms
3.	Odour	Slight, Specific	Conforms
4.	Solubility - in Water - in Methanol and Acetone	Practically Insoluble Soluble	Conforms Conforms
5.	Identification - TLC, HPLC	To Comply with The Test	Conforms
6.	Sulphated Ash	NMT 0.6%	0.1
7.	Heavy metals - Lead - Atomic Absorption - Arsenic - Atomic Absorption - Cadmium- Atomic Absorption - Mercury- Atomic Absorption	NMT 10 PPM NMT 0.5 PPM NMT 1.0 PPM NMT 0.3 PPM NMT 0.1 PPM	Conforms Conforms Conforms Conforms Conforms
8.	Loss On Drying (2 Hours 105 °C)	NMT 5.0%	2.7%
9.	Bulk Density loose (gm/cc) Bulk Density Tap (gm/cc)	$\geq 0.3 \leq 0.6$ $\geq 0.5 \leq 0.8$	0.45 0.65
10.	Powder size	80Mesh, NLT95%	Conforms
11.	Assay of Silymarin (UV test, per cent, Standard in House)	Min. 80,0	81.0
12.	Assay of Total Silymarin (HPLC, determined as silybin, per cent) - sum of silycrisine and silydianine (HPLC, per cent of the total) - sum of silybin A and silybin B (HPLC, per cent of the total) - sum of isosilybin A and isosilybin B(HPLC, per cent of the total)	From 30,0 to 65,0 From 20,0 to 45,0 From 40,0 to 65,0 From 10,0 to 20,0	41.8 29.4 57.3 13.3
13.	Residual Solvents - N-hexane - Methanol - Acetone - Ethyl Acetate - Ethanol	NMT 290 PPM NMT 3000 PPM NMT 5000 PPM NMT 5000 PPM NMT 5000 PPM	3 33 1288 0 0
14.	Pesticide Residues - Total DDT (Sum of p,p'-DDD,P,P'-DDE,o,p'-DDT and p,p' -DDT) - Aldrin, Endrin, Dieldrin	NMT 0.05 PPM NMT 0.01 PPM	Conforms Conforms
15.	Microbiological Quality (Total viable aerobic count) - Bacteria, CFU/gm, not more than - Moulds ,yeasts and Coliforms CFU/gm, not more than - E.coli, Salmonella, S. aureus, CFU/gm	10^3 10^2 Absence	Conforms Conforms Conforms

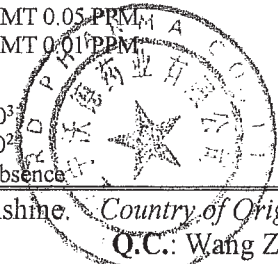
Storage: In Tight, Light-resistant and Dry Place. Avoid Direct Sunshine.

Analyst: Xu Xiaolin

Checker: Zhong Yingying

Country of Origin: China

Q.C.: Wang Zizhu



LIVERD PHARMA CO., LTD.

www.liverdpharma.com

Gaosheng Economic Zone, Panjin City, Liaoning, 124010 China

Mail:mh.wu@liverdpharma.com