

# CERTIFICATE OF ANALYSIS

**BACOGNIZE®**

<b>LATIN NAME:</b> <i>Bacopa monnieri</i>	<b>COMMON NAME:</b> Bacopa	<b>HARVEST SEASON:</b> January - May <sup>1</sup>	<b>LOT NUMBER:</b> LBM2EP1609L19
<b>ORIGIN:</b> India	<b>PLANT PART USED:</b> Whole Herb	<b>HARVEST METHOD:</b> Wild Crafted	<b>MFG. DATE:</b> November 2016

**Product code: BCN045EPPH**

PHYSICAL CHARACTERISTIC	SPECIFICATION	TEST METHOD	RESULTS (-)
Identification	Positive	TLC/HPLC	Confirms
Appearance	Powder	Visual	Confirms
Color	Greenish Brown to Brown <sup>2</sup>	Visual	Confirms
Odor	Characteristic	Organoleptic	Confirms
Taste	Characteristic	Organoleptic	Confirms
Particle Size	NLT 90.00% thru 80 mesh	USP <786>	98.63%
Bulk Density	NLT 0.30 g/mL	USP <616>	0.40 g/mL
Tap Density	NLT 0.40 g/mL	USP <616>	0.56 g/mL

CHEMICAL ANALYSIS	SPECIFICATION	TEST METHOD	RESULTS (-)
Assay for Actives			
a. Total Bacopa Glycosides	NLT 12.00%	HPLC	12.63%
Loss on Drying	NMT 6.00%	USP <731>	2.10%
Herb Extract Ratio	10-20:1	In-house specification	Confirms
Extraction Solvent	Alcohol	In-house specification	Confirms
Excipient	None	In-house specification	None

IMPURITIES	SPECIFICATION	TEST METHOD	RESULTS (+)
Lead	< 3 ppm	AAS/ICP-MS	0.074 ppm (ICP-MS)
Mercury	< 2 ppm	AAS/ICP-MS	< 0.1 ppm (ICP-MS)
Arsenic	< 5 ppm	AAS/ICP-MS	1.5 ppm (ICP-MS)
Cadmium	< 1 ppm	AAS/ICP-MS	< 0.25 ppm (ICP-MS)
Residual Solvent	USP <467> Screen <sup>3</sup>	USP <467>	Complies
Pesticides Residue	USP <561> Screen	USP <561>	Complies

MICROBIOLOGY	SPECIFICATION	TEST METHOD	RESULTS (-)
Total plate count	< 10000 cfu/g	USP	560 cfu/g
Yeast & mold	< 1000 cfu/g	USP	35 cfu/g
Coliforms	< 100 cfu/g	USP	Absent
Escherichia coli	Absent/10g	USP	Absent
Salmonella	Absent/10g	USP	Absent
Staph Aureus	Absent/10g	USP	Absent

<sup>1</sup>Harvest season is subject to change based on environmental changes.

<sup>2</sup>Color of botanical products is subject to seasonal conditions and may vary from lot to lot.

<sup>3</sup>Class 1, 2a, 2b, and selected Class 3

(-) The results shown are obtained from the supplier's Certificate of Analysis.

(+) Results shown are from third party analyses.

Note: Material has an inherent tendency to form clumps due to its hygroscopic nature.

**Shelf Life:** 36 months from date of manufacture

**Storage:** At room temperature, away from sunlight and moisture

Approved by: *Quillay* Date: January 19, 2017

V-1 (r12)



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