

## CERTIFICATE OF ANALYSIS

**Product Name** Echinacea Extract  
**Batch Number** PME140519  
**Batch Quantity** 2000KG  
**Manufacture Date** 2014-05-19  
**Expiration Date** 2016-05-18

ANALYSIS	SPECIFICATION	RESULTS
<b>Assay</b>	Polyphenols $\geq 7.0\%$	7.12% UV
	Cichoric acid $\geq 2.0\%$	2.42% HPLC
<b>Organoleptic</b>		
Appearance	Fine Powder	Conforms
Color	Yellow-green	Conforms
Odor	Characteristic	Conforms
Taste	Characteristic	Conforms
Part Used	All herb	Conforms
Extract Solvent	Water&Ethanol	Conforms
<b>Physical Characteristics</b>		
Particle Size	NLT 100%Through 80 mesh	Conforms
Loss on Drying	$\leq 5.0\%$	3.02%
Ash content	$\leq 5.0\%$	3.26%
Bulk Density	40-60g/100ml	52g/100ml
<b>Heavy metals</b>		
Total Heavy Metals	$\leq 20\text{ppm}$	Conforms
Arsenic	$\leq 2\text{ppm}$	Conforms
Pb	$\leq 2\text{ppm}$	Conforms
<b>Microbiological Tests</b>		
Total Plate Count	$\leq 1000\text{cfu/g}$	360cfu/g
Total Yeast & Mold	$\leq 100\text{cfu/g}$	15cfu/g
E.Coli	Negative	Negative
Salmonella	Negative	Negative
Staphylococcus	Negative	Negative

**Packing and Storage:** Packed in paper drums and two plastic bags inside. Store in well closed container away from moisture