

## CERTIFICATE OF ANALYSIS

Product and Batch Information			
<b>Product Name:</b>	Astragalus Root Extract	<b>Country of Origin:</b>	P.R. China
<b>Botanic name:</b>	Astragalus membranaceus	<b>Type of extraction:</b>	Water/ Grain Alcohol
<b>Plant Part:</b>	Root (Dried, 100% Natural)	<b>Active Ingredient:</b>	Polysacchrides
<b>Batch:</b>	ARE40-090421	<b>Manufacture Date:</b>	May 19, 2016.
<b>Extract Ratio:</b>	Approx. 10 to 1 extract	<b>Analysis Date:</b>	May 19, 2016.
<b>Analysis:</b>	500 kg	<b>Report Date:</b>	May 19, 2016.
Analysis	Specification	Result	Test Method
Physical Control			
<b>Identification</b>	Positive	Conforms	TLC
<b>Extract Solvent</b>	70% Ethanol/ 30% water	Conforms	/
<b>Appearance</b>	Fine powder	Complies	Visual
<b>Color</b>	Brownish Yellow	Complies	Visual
<b>Odor</b>	Characteristic	Complies	Organoleptic
<b>Taste</b>	Characteristic	Conforms	Organoleptic
<b>Sieve Analysis</b>	100% pass 80 mesh	Complies	80 Mesh Screen
<b>Loss on Drying</b>	5% Max	3,22%	5g/ 105°C/ 5 hrs
<b>Solubility</b>	Good Solubility in Water and grain Alcohol solution	Conforms	Visual
<b>Ash</b>	5% Max	3,46%	2g/ 525°C/ 5 hrs
Chemical Control			
<b>Sulphate</b>	0,5% Max	Complies	2g/ 525°C/ 5 hrs
<b>Insolubles in Ethanol</b>	10ppm Max	3,9 ppm	
<b>Ethanol Resides</b>	0,2% Max	Complies	
<b>Arsenic (As)</b>	NMT 2 ppm	Conforms	Atomic Absorption
<b>Cadmium (Cd)</b>	NMT 1 ppm	Conforms	Atomic Absorption
<b>Lead (Pb)</b>	NMT 1 ppm	Conforms	Atomic Absorption
<b>Chlorate (Cl)</b>	NMT 1 ppm	Conforms	Atomic Absorption
<b>Phosphate Organics</b>	NMT 1 ppm	Conforms	Gas Chromatography
<b>Heavy Metals</b>	10 ppm Max	Complies	Atomic Absorption
<b>Pesticides Residues</b>	NMT 1 ppm	Conforms	Gas Chromatography
<b>Sterilisation</b>	High Temperature & High Pressure for short time(5"- 10")(Free from		

<b>Method</b>	Gamma Irradiation).		
<b>GMO Status</b>	GMO Free	Conforms	
Microbiological Control			
<b>Total Plate Count</b>	1000 cfu/ g Max	40 cfu/ g	
<b>P.aeruginosa</b>	Absent	O.K.	
<b>S.aureus</b>	Absent	O.K.	
<b>Salmonella</b>	Absent	O.K.	
<b>Yeast &amp; Mold</b>	50 cfu/ g Max	12 cfu/ g	
<b>E.Coli</b>	Negative	Negative	
<b>Aristolochic acid</b>	Absent	O.K.	
<b>PAHS</b>	Absent	O.K.	
<b>Staphylococcus</b>	Negative	Conforms	
<b>Clostridium spp</b>	Negative	Negative	
<b>Aflatoxins</b>	NMT 0,2 ppb	Absent	HPLC
Packing and Storage			
<b>Packing</b>	Pack in paper-drums and two plastic-bags inside.		
<b>Storage</b>	Store in well-closed container away from moisture.		
<b>Shelf life</b>	3 years if sealed and store away from direct sun light.		
<b>Expiration Date</b>	May, 2019.		
This C of A format refer to 1999 National Nutrition Foods Association -- USA			