



**Hongda**  
Phytochemistry

**Tel:** +86(029)89611711,626-709-5642

**Web:** www.jhdcorp.com

**E-mail:** info@jhdcorp.com

**Headquarter:** 1932 S Lynx Place, Ontario, CA 91761,US

**Factory:** No.2, Hongda Industrial District, Dacheng, Sanyuan, Xianyang, Shaanxi,China.

**USA Warehouse:** 1932 S. Lynx PL, Ontario, CA 91761,US

**NJ Warehouse:** 52 Butler Street, Unit A Elizabeth, NJ 07206

## Certificate of Analysis

### Rhodiola Rosea Extract Rosavins 3% and Salidroside 1% HPLC

<b>Batch No.</b>	HJT201210	<b>Manufacturing Date</b>	12/10/2020
<b>Batch Quantity</b>	1000KG	<b>Expiration Date</b>	12/09/2023
<b>Botanical Source</b>	<i>Rhodiola rosea L.</i>	<b>Country of Origin</b>	China
<b>Appearance</b>	Reddish Brown Fine Powder	<b>Part Used</b>	Root (100% Natural)
<b>Solvents Used</b>	Water&Ethanol	<b>Carrier Used</b>	None
<b>Sterilization Method</b>	Heat    NON-IRR	<b>Kosher    Halal</b>	Yes    Yes

ITEMS	SPECIFICATION	RESULT	METHOD
Content	Rosavins $\geq 3\%$	3.09%	HPLC    USP<621>
Content	Salidroside $\geq 1\%$	1.37%	HPLC    USP<621>
Identification	Correspond to standard	Conform	TLC    USP<201>

#### PHYSICAL CHARACTERISTICS

Odor	Typical	Conform	Organoleptic
Taste	Typical	Conform	Olfactory
Particle Size	NLT 95% Through 80 mesh	Conform	Analytical sieving    USP <786>
Loss on Drying	NMT 5.00%	3.86%	USP <731>
Ash	NMT 5.00%	1.78%	USP <561>
Bulk Density	Between 30-60g/100ml	50.00g/100ml	USP <616> Method I
Tapped Density	Between 50-80g/100ml	60.00/100ml	USP <616> Method I

#### CHEMICAL CHARACTERISTICS

Residual Solvent	NMT 5000ppm	Conform	GC    USP <467>
Pesticide Residue	Meet the requirements	Conform	GC    USP <561>
Heavy Metals(as Pb)	NMT 10ppm	Conform	USP <231> Method II
Arsenic (As)	NMT 1.0ppm	<0.5ppm	ICP-MS
Lead (Pb)	NMT 1.0ppm	<1.0ppm	ICP-MS
Cadmium(Cd)	NMT 0.5ppm	<0.5ppm	ICP-MS
Mercury(Hg)	NMT 0.1ppm	<0.1ppm	ICP-MS

#### MICROBIOLOGICAL CHARACTERISTICS

Total Plate Count	NMT1000cfu/g	Conform	USP<61>
Total Yeast & Mold	NMT100cfu/g	Conform	USP<61>
E.Coli	Not Detected in(g) 10	Not Detected	USP<61>
Salmonella	Not Detected in(g) 25	Not Detected	USP<61>
Staphylococcus	Not Detected in(g) 10	Not Detected	USP<61>

**Packing and Storage** Polyethylene bag with cardboard drum. 25kg net.  
Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

**Tested by:** Tracy Cui **Date:** 12/20/2020

**Approved by:** Jack Joa **Date:** 12/20/2020