

# CERTIFICATE OF ANALYSIS

## Turmeric 95% EP

<b>LATIN NAME:</b> <i>Curcuma longa</i>	<b>COMMON NAME:</b> Turmeric 95% EP	<b>HARVEST SEASON:</b> January - May	<b>LOT NUMBER:</b> SCL1EP1303C19
<b>ORIGIN:</b> India	<b>PLANT PART USED:</b> Rhizome	<b>HARVEST METHOD:</b> Cultivated	<b>MFG. DATE:</b> March 2013

Product code: CLA095EPSY

PHYSICAL CHARACTERISTIC	SPECIFICATION	TEST METHOD	RESULTS
Identification	Positive	TLC/HPLC	Confirms
Plant Part Used	Rhizome	Visual	Confirms
Appearance	Dry Powder	Visual	Confirms
Color	Yellowish Orange*	Visual	Confirms
Odor	Characteristic	Organoleptic	Confirms
Taste	Characteristic	Organoleptic	Confirms
Particle size	NLT 100% thru 20 mesh	USP <786> or ASTA	Confirms
Bulk density	NLT 0.3 g/mL	USP <616> or ASTA	Complies (Cofa History)
Tap Density	NLT 0.4 g/mL	USP <616> or ASTA	Complies (Cofa History)
CHEMICAL ANALYSIS	SPECIFICATION	TEST METHOD	RESULTS
Assay for Actives			
Total Curcuminoids	NLT 95%	By HPLC	95.02%
Loss on Drying	NMT 6%	Inhouse method	0.30%
Herb Extract Ratio	30-60:1	In-house specification	Confirms
Extraction Solvent	Acetone/Ethyl Acetate	In-house specification	Confirms
Excipient	None	In-house specification	None
IMPURITIES	SPECIFICATION	TEST METHOD	RESULTS
Total heavy metals	< 10 ppm	USP <731>/AAS	Complies
Lead	< 1 ppm	ICP-MS/AAS	0.052 ppm (ICP-MS)
Mercury	< 0.1 ppm	ICP-MS/AAS	0.023 ppm (ICP-MS)
Arsenic	< 1 ppm	ICP-MS/AAS	<0.1 ppm (ICP-MS)
Cadmium	< 1 ppm	ICP-MS/AAS	<0.02 ppm (ICP-MS)
MICROBIOLOGY	SPECIFICATION	TEST METHOD	RESULTS
Total plate count	< 3000 cfu/g	USP, BAM or equivalent	<100 cfu/g (USP)
Yeast & mold	< 200 cfu/g	USP, BAM or equivalent	<200 cfu/g (USP)
Escherichia coli	Absent	USP, BAM or equivalent	Absent (USP)
Salmonella	Negative/25 g	USP, BAM or equivalent	Negative/25 g (USP)
Staph Aureus	Absent	USP, BAM or equivalent	Absent (USP)
Coliform	< 10 cfu/g	USP, BAM or equivalent	<10 cfu/g (USP)
Enterobacteriaceae	< 100 cfu/g	USP, BAM or equivalent	<10 cfu/g (USP)

\*Color of botanical products is subject to seasonal conditions and may vary from lot to lot

**Re-test:** 36-months from date of manufacture

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

**Certification:** Kosher & Halal

Approved by: \_\_\_\_\_  \_\_\_\_\_



1250 E. Conner St, Noblesville, IN USA, 46060

+1.317.776.3600 fax: +1.317.776.3650 email: info@vs-corp.com

© 2013 Verdure Sciences. All Rights Reserved.