



CERTIFICATE OF ANALYSIS

Product Name	Marigold Extract
Latin Name	Tagetes erecta L.
Part Used	Flower
Extract Solvent	N-hexane
Country of Origin	China
Extract Ratio	4:1
Batch Number	24062701
Manufacture Date	June 27, 2024
Expiry Date	June 26, 2027

Physical Parameters

Analysis Item	Specification	Result
Appearance	Orange yellow to orange red powder	Complies
Odor	Characteristic	Complies
Taste	Characteristic	Complies
Loss on Drying	$\leq 8.0\%$	1.65%
Ash	$\leq 1.0\%$	0.72%
Particle Size	$\geq 95\%$ pass 80 mesh	Complies

Chemical Parameters

Analysis Item	Specification	Result
Heavy Metals (total)	≤ 10 ppm	Complies
Arsenic (As)	≤ 3 ppm	Complies
Cadmium (Cd)	≤ 1 ppm	Complies
Lead (Pb)	≤ 3 ppm	Complies
Mercury (Hg)	≤ 0.1 ppm	Complies
N-hexane	≤ 50 mg/kg	Complies

Assay

Analysis Item	Specification	Result
Total Carotenoids (UV)	≥11.0%	11.26%
Lutein (HPLC)	≥10.0%	10.15%
Zeaxanthin (HPLC)	≤1.1%	0.79%

Microbiological

Analysis Item	Specification	Result
Total Plate Count	≤1,000 cfu/g	<10 cfu/g
Yeast & Mold	≤100 cfu/g	<10 cfu/g
Coliforms	≤0.92 MPN/g	Negative
Salmonella	Negative	Negative

Packaging & Storage

Item	Details
Shelf Life	Three years when properly stored.