

QUALITY SPECIFICATION

Lutein

Catalog No.: NST-10-133

CAS No.: 127-40-2

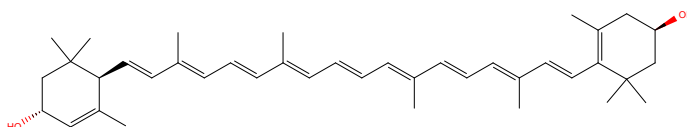
Molecular formula: C₄₀H₅₆O₂

MW: 568.90

Botanical name: *Tagetes erecta* L.

Part used: flower

Shelf life: 2 years



No.	Parameter	Specification	Method
1.	Appearance	Powder	Visual
2.	Color	Orange yellow to orange red	Visual
3.	Particle size	≥95% pass 80 mesh	Screen
4.	Loss on Drying	≤1.0%	USP <731>
5.	Ashes	≤1.0%	USP <281>
6.	Total carotenoids	≥80.0%	UV
7.	Lutein	≥75.0%	HPLC
8.	Zeaxanthin	≤9.0%	HPLC
9.	N-hexane residual	≤50 mg/kg	GC
10.	Heavy Metals	≤10 ppm	ICP-MS
11.	Lead	≤2 ppm	ICP-MS
12.	Arsenic	≤1 ppm	ICP-MS
13.	Mercury	≤0.1 ppm	ICP-MS
14.	Cadmium	≤1 ppm	ICP-MS
15.	TPC	<10 ³ CFU/g	USP <2021>

16.	TYMC	<10 ² CFU/g	USP <2021>
17.	<i>Escherichia Coli</i>	Absent	USP <2022>
18.	<i>Salmonella</i>	Absent	USP <2022>
19.	<i>Staphylococcus aureus</i>	Absent	USP <2022>

Storage: Store in a cool, dry place, away from strong light and heat. Full and tight package

Stability: 24 months when properly stored