

## FINISHED PRODUCT SPECIFICATION

PRODUCT NAME	<b>LUTEIN EXTRACT 50.0%</b>	SPEC:FPS/B01/0588-01
		Effective Date: 07-04-2022

Botanical/ Scientific name	<i>Tagetes erecta</i>	Plant part used	Petals of Marigold
Standardization	Lutein	Production Method	Drying
Shelf Life	3 years	Extraction Solvent	Ethanol

SL No	Protocol	Test Parameter	Test Limit
<b>Physical</b>			
01	Organoleptic	Description	Orange red to brick red color* powder
02	TM/0588	Identification	To Comply by HPLC
03	USP	Solubility	Partially soluble in alcohol.
04	USP <731>	Loss on drying	Not more than 6.0%w/w
05	USP <281>	Ash content	Not more than 5.0%w/w
06	USP <616>	Untapped bulk density	Between 0.30 to 0.60g/ml
07	USP <616>	Tapped bulk density	Between 0.50 to 0.80g/ml
08	USP <786>	Particle size	100% passing through 40 mesh
<b>Chemical</b>			
09	TM /0588	Content of free Lutein by HPLC	Not less than 50.0% w/w ..
<b>Heavy Metal</b>			
10	USP <233>Procedure 1	Lead	Not more than 3.0 ppm
	USP <233>Procedure 1	Arsenic	Not more than 1.0 ppm
	USP <233>Procedure 1	Cadmium	Not more than 0.5 ppm
	USP <233>Procedure 1	Mercury	Not more than 0.1 ppm
<b>Microbiological</b>			
11	USP <2021>	Total plate count	Not more than 3000cfu/g
	USP <2021>	Total yeast and mold count	Not more than 100cfu/g
	USP <2022>	Escherichia coli	Absent / 10g
	USP <2022>	Salmonella spp.	Absent / 10g
	USP <2021>	Coliforms	Absent / 10g
	USP <2022>	Staphylococcus aureus	Absent / 10g
	USP <62>	Pseudomonas aeruginosa	Absent / 10g

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ADDITIONAL INFORMATION	
Sanitizing treatment	Non –irradiated and not treated with ETO
GMO Status	GMO free
Standard Packing	25 Kg in single HDPE container.
Certifications	ISO 22000:2005, ISO 9001:2015, GMP, HALAL certified
Storage condition	Store in a cool and dry place away from sunlight and heat. The preferred storage is below 30 <sup>0</sup> C.

\* The product is of herbal origin. There may be minor color difference because of the geographical and seasonal variations of the plant material.

*This is a computer generated copy. Hence signature not required*



**Bio-Med Ingredients Pvt Limited**

**Phase -1, Plot No. SC-1/48, Verna Industrial Estate, Verna, Salcete, Goa. 403722.** Tel :+91 832 2782010,11,12,  
Mob :+91 8806668458, Email: info@biomedingredients.com, Website: www.biomedingredients.com