



## Marigold Extract – Technical Data Sheet (20% Lutein)

<b>INCI Name</b>	Tagetes Erecta Flower Extract
<b>Botanical Source</b>	Tagetes erecta L. – Flower
<b>Specification</b>	20% Lutein (HPLC)
<b>Physical Form</b>	Orange to reddish-orange powder
<b>Smell</b>	Characteristic mild herbal aroma
<b>Solubility in Water</b>	Low (<1 g/L at 50 °C)
<b>Solubility in Oil</b>	Soluble in vegetable oils, ethanol, or emulsions
<b>Recommended Solubilization Method</b>	<ul style="list-style-type: none"><li>- Disperse in oil or hydroalcoholic base</li><li>- Stir 5–10 minutes under warm conditions (40–50 °C)</li><li>- Use emulsifier if applying in aqueous systems</li></ul>
<b>Cosmetic Functions</b>	Skin conditioning, antioxidant, colorant
<b>Recommended Use Level</b>	0.1–1% depending on formulation type
<b>Preservation/Handling</b>	Store sealed in a dry, cool place away from direct light
<b>Shelf Life</b>	24 months if stored correctly in unopened packaging
<b>Toxicity Criteria</b>	
NOAEL	500 mg/kg bw/day (oral, rat, lutein extract)
LD50	>5000 mg/kg bw (oral, rat)
Genotoxicity	No genotoxic effects reported in studies on purified lutein