SAFFLOWER OIL - COSMETIC GRADE

Technical data sheet

Product Overview

Product Name: Safflower Oil — Cosmetic Grade

INCI: Carthamus Tinctorius (Safflower) Seed Oil

CAS / EINECS: 8001-23-8 / 232-276-5 (typical for safflower seed oil)

Processing: Cold-pressed, filtered; no additives

Allergens: No added fragrance; naturally occurring components only.

1. Composition (Typical Fatty-Acid Profile, Linoleic-Type)

- **Linoleic (C18:2):** 65–80%
- **Oleic (C18:1):** 10–20%
- **Palmitic (C16:0):** 5–8%
- **Stearic (C18:0):** 2–4%

High-oleic grades available on request.

2. Physico-Chemical Specifications (Typical Ranges)

- **Appearance:** Clear, light-yellow to golden liquid
- **Odor:** Neutral to light, characteristic
- **Density (20 °C):** 0.920–0.935 g/mL
- **Refractive index (20 °C):** 1.465–1.475
- **Acid value:** ≤ 5.0 mg KOH/g
- **Peroxide value:** ≤ 10.0 meq O_2/kg
- **Iodine value (linoleic type):** 135–155 g I_2/100 g
- **Saponification value:** 188–198 mg KOH/g

3. Performance & Formulation Notes

Safflower oil provides light emollience and improves spreadability and after-feel in serums and creams.

- Works well with humectants (glycerin), ceramide-supporting actives, and niacinamide.
- Add antioxidants (e.g., 0.05–0.1% tocopherol) for oxidative stability.
- Add below 40 °C at cool-down to preserve unsaponifiables.
- Compatible with most non-ionic emulsifiers, surfactant systems, and cold-process soap.

4. Microbiological / Contaminants

Vegetable oils have very low water activity; specs available per lot on CoA.

5. Safety & Regulatory

Cosmetic raw material; external use only. Patch-test recommended.

Manufactured under ISO 22716 (GMP).

Documents available: PIF, TDS, CoA (per lot), SDS.

Suitable for vegan formulas; no animal derivatives.

6. Packaging, Storage & Shelf Life

Packs: 250 mL · 1 L · 5 L · 20 L · 25 L · 190–200 kg drums

Private-label/bulk: glass droppers, PET/HDPE, aluminum; nitrogen flush on request.

Storage: Cool (15–25 °C), dry, away from light/heat; keep tightly closed.

Shelf life: 24 months (unopened, original container).

Background Note

Safflower oil has a long tradition in skincare for moisturizing and soothing benefits, historically used since Egyptian times. Modern cosmetics continue to value it for dry/sensitive skin and hair care.

Summary

This technical data sheet provides comprehensive information about Cosmetic Grade Safflower Oil, including its composition, specifications, performance, safety, and storage guidelines. It serves as a valuable resource for formulators and manufacturers in the cosmetic industry.