**EVOIL® EVENING PRIMROSE**

**PRODUCT DATA SHEET**

*EVOIL® EVENING PRIMROSE* is a Refined Vegetable Oil that improves the intrinsic properties of Evening Primrose Oil creating a more functional vegetable oil.

*EVENING PRIMROSE* species are native to America; it was used by the North American Indians to relieve a variety of medical conditions.

*EVOIL® EVENING PRIMROSE* physical characteristics have been improved resulting in minimal colour level and a virtually odourless vegetable oil.

*EVOIL® EVENING PRIMROSE* is a natural Refined Vegetable Oil that exhibits a specific fatty acid distribution with high content in gamma - linolenic acid (GLA, an Omega-6), presenting a minimum 5.5 % GLA content. Gamma - linolenic acid is an important intermediary in the metabolic conversion of linolenic acid into Prostaglandin E1 (PGE₁) one of many prostaglandins which are interconvertible, and which modulate the action of many hormones.

**TECHNICAL DATA**

- **Appearance:** Pale yellow Oily liquid, with minimum odour
- **Acidity index:** ≤ 1.00 mg KOH/g oil
- **Peroxide value:** ≤ 10.0 meq O₂/Kg oil
- **Specific gravity:** 0.90 - 0.93 g/ml
- **Iodine value:** 145 - 165

**MAIN FATTY ACID COMPOSITION (Fatty Acid Fraction):**

<table>
<thead>
<tr>
<th>Fatty Acid</th>
<th>Fraction (%)</th>
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<tbody>
<tr>
<td>Oleic Acid (Ω9)</td>
<td>6 - 18 %</td>
</tr>
<tr>
<td>Linoleic Acid (Ω6)</td>
<td>60 - 80 %</td>
</tr>
<tr>
<td>Palmitic Acid</td>
<td>5.5 - 8 %</td>
</tr>
<tr>
<td>Stearic Acid</td>
<td>1 - 3 %</td>
</tr>
<tr>
<td>γ-Linolenic Acid (Ω6)</td>
<td>min. 5.5 %</td>
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</table>
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APPLICATION

EVOIL® EVENING PRIMROSE may be applied directly to the skin and hair. It may also be easily incorporated as an active ingredient or an ideal carrier in skin and hair care products. Recommended dosage is between 3 and 10 %.

EVOIL® EVENING PRIMROSE is an ideal ingredient that is easily incorporated in all kinds of cosmetics from rinse-off to leave-on products. Ideally suited for dry skin, sensitive skin and general skin care products.

Researchers conducted a study that documented the biophysical skin parameters indicators of age-related structural and functional changes in skin tissues. This study tested the effect of EVENING PRIMROSE OIL on skin moisture, transepidermal water loss (TEWL), firmness, elasticity, fatigue resistance and roughness. EPO was administered orally. All measured variables had significantly improved by 12.9, 7.7, 4.7, 16.7, 14.2 and 21.7%, respectively. GLA is an essential fatty acid for the skin, i.e. it is unable to synthesize GLA, and therefore depends on preformed GLA for optimal structure and function.

% Improvement of skin parameters after 12 weeks of oral administration of Evening Primrose Oil.

INCI NAME: Oenothera biennis oil and Olus oil and Tocopherol
CAS No.: 90028-66-3, 68956-68-3, 1406-66-2
EINECS No.: 289-859-2, 273-313-5, 1406-66-2