SUNFLOWER OIL, HIGH OLEIC

PRODUCT DATA SHEET

HIGH OLEIC SUNFLOWER OIL is a Refined Vegetable Oil that is an ideal source of monounsaturated fatty acids for nutritional products. In cosmetic applications it has moisturising properties, excellent skin feel and is easily absorbed. The physical characteristics have been improved when compared to virgin oil resulting in a minimal colour level and a virtually odourless vegetable oil.

HIGH OLEIC SUNFLOWER OIL exhibits greater stability and resistance to rancidity over time compared to other oils due to the high content of natural Tocopherol and the low level of polyunsaturated fatty acids.

TECHNICAL DATA

Appearance: Oily liquid, pale yellow with minimum odour
Acidity index: ≤ 1.00 mg KOH/g
Peroxide value: ≤ 10.0 meq O₂/Kg
Specific gravity: 0.90 - 0.93 g/ml
Oleic acid: ≥ 75.0 %

<table>
<thead>
<tr>
<th>Fatty Acid</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palmitic acid</td>
<td>3.5 - 8 %</td>
</tr>
<tr>
<td>Stearic acid</td>
<td>3 - 7 %</td>
</tr>
<tr>
<td>Oleic acid</td>
<td>Min. 75 %</td>
</tr>
<tr>
<td>Linoleic acid</td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>Linolenic acid</td>
<td>Max. 0.2 %</td>
</tr>
</tbody>
</table>

APPLICATION

HIGH OLEIC SUNFLOWER OIL offers an excellent source of monounsaturated fatty acids (MUFA) in adapted milk formulae, since addition of 50% of the lipid fraction as high oleic sunflower oil gives the equivalent of the total quantity of MUFA in the mother’s milk. Increased interest has been spurred by dietary recommendations favouring high monounsaturates, low saturates and stable alternatives to hydrogenated oils. Functional applications for this oil include use as a dairy substitute, a spray oil for fruits and cereals, a salad or frying oil, and use in the manufacture of confectionery items.
HIGH OLEIC SUNFLOWER OIL

In cosmetic applications, HIGH OLEIC SUNFLOWER OIL is an excellent emollient. Due to its good oxidation stability it is also recommended in sun care products. It can be used in anhydrous products and in emulsions at a concentration of 1-100% of the oil phase.

OIL STABILITY INDEX (OSI)

The Oil Stability Index (OSI) was determined using a Rancimat instrument. The rapidity of oxidation of an oil depends on the degree of unsaturation, the presence of antioxidants, and prior storage conditions. In the OSI analysis, the rate of oxidation is slow until resistance to oxidation is overcome. This time is known as the oxidation induction period and it is a tool to determine the useful life of the oil.

HIGH OLEIC SUNFLOWER OIL OSI: 48.9 hours (100 °C)

ISO 6886 (1996)
Animal and vegetable fats and oils
Determination of oxidation stability

Conditions
Sample amount 2.5 ± 0.01 g
Temperature 100°C ± 0.2°C
Gas flow 20 L/h
Vessel: 50 mL distilled water
Evaluation Conductivity
Induction time (tangent method)

Blue: determination at 100 °C
Red: determination at 110 °C

INCI Name: Helianthus annuus (Hybrid Sunflower) Seed Oil
CAS Number: 8001-21-6
# SUNFLOWER OIL HIGH OLEIC (WINT)

<table>
<thead>
<tr>
<th>CODE</th>
<th>SPECIFICATION Nº</th>
<th>SPECIFICATION</th>
<th>EDITION - 19/08/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>008082</td>
<td>00808213</td>
<td>Clear pale yellow oily liquid at 20ºC, almost odourless and characteristic bland taste.</td>
<td></td>
</tr>
</tbody>
</table>

**Appearance**

**Acidity index**

max. 0.5

**Peroxides value**

max. 1 meq. O2/Kg (at time of drumming)

**FATTY ACIDS COMPOSITION:**

- **Lauric**
  - max. 0.1 %
- **Myristic**
  - max. 0.1 %
- **Palmitic**
  - 3.5 - 8.0 %
- **Palmitoleic**
  - max. 0.2 %
- **Stearic**
  - 3.0 - 7.0 %
- **Oleic**
  - min. 84.0 %
- **Linoleic**
  - 5.0 - 15.0 %
- **Linolenic**
  - max. 0.2 %
- **Arachidic**
  - max. 0.6 %
- **Gadoleic**
  - max. 0.3 %
- **Behenic**
  - max. 1.0 %
- **Lovibond**
  - max. 1.5 R
- **Iodine Value**
  - 75 - 87

## PACKING

200 KG (440 LB.) OR 23 KGS (50.7 LB) STEEL DRUMS.

## REMARKS

Keep full and well closed in a dry place and away from light.