

# MACADAMIA NUT OIL REFINED

## PRODUCT DATA SHEET



**MACADAMIA NUT OIL REFINED** is a refined and winterized unique vegetable oil due to its high content in Palmitoleic acid, a monounsaturated fatty acid that avoids oxidation and fits with the skin's fatty acid composition. Palmitoleic acid is found in human sebum among the young, but the level dramatically drops in mature skin.

**MACADAMIA NUT OIL REFINED** exhibits a long shelf life and good resistance to rancidity due to the low content of polyunsaturated fatty acids. It is an oil with minimal colour and virtually odourless.

**MACADAMIA NUT OIL REFINED** applies easily and offers deep penetration and significant moisture retention together with high nourishing properties. Macadamia nut oil contains about 80% of monounsaturated fatty acids and a higher percentage of Palmitoleic acid than any other vegetable oil. **MACADAMIA NUT OIL REFINED** restores dry, dehydrated, and mature skin.

**MACADAMIA NUT OIL REFINED** is suitable for all kinds of cosmetic products from rinse-off to leave-on. It is helpful in cases of sunburn and wound healing.

### TECHNICAL DATA

**Appearance:** Clear pale yellow oily liquid  
**Acidity index:** ≤ 2.0 mg KOH/g oil  
**Peroxide value:** ≤ 10.0 meq O<sub>2</sub>/Kg oil  
**Relative density (20°C):** 0.909 - 0.915  
**Cold test:** 5 ° C for 24 hours  
 When reheated above 5 ° C the oil returns to normal.

| Fatty Acid       | Composition |
|------------------|-------------|
| Stearic acid     | 2 - 5 %     |
| Palmitic acid    | 8 - 10 %    |
| Palmitoleic acid | 16 - 24     |
| Oleic acid       | 53 - 67 %   |
| Linoleic acid    | 1.5 - 4 %   |

## MACADAMIA NUT OIL REFINED

### APPLICATION



**MACADAMIA NUT OIL REFINED** may be directly applied to the skin and hair. It may also be easily incorporated as an active ingredient or an excellent carrier in skin and hair care products. The recommended dosage is between 3 to 10%.

**MACADAMIA NUT OIL REFINED** can also be used directly as massage oil. Should be kept in a cool place or refrigerated and tightly closed.

### OIL STABILITY INDEX (OSI)

The Oil Stability Index (OSI) was determined using a Rancimat instrument. The rapidity of oxidation of 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.

**MACADAMIA OIL OSI:** 21.6 hours (100 °C)

ISO 6886 (1996)

Animal and vegetable fats and oils  
 Determination of oxidation stability

#### Conditions

Sample amount  $2.5 \pm 0.01$  g

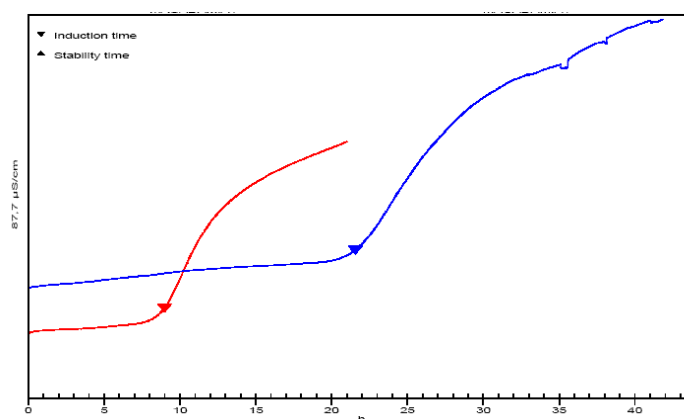
Temperature  $100^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$

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:** Macadamia Ternifolia Seed Oil.