

Sunflower oil is the non-volatile oil pressed from the seeds of sunflower (*Helianthus annuus*). Sunflower oil contains only 10% saturated fat and a high proportion of polyunsaturated alpha-linoleic acid (Omega-6). Commercially sunflower oil has become more widely used in recent years, especially in the production of potato crisps (chips) and in cosmetic formulations as an emollient.

Sunflower oil	
Nutritional value per 100 g (3.5 oz)	
Energy	3,699 kJ (884 kcal)
Carbohydrates	0 g
Fat	100 g
Saturated	10.3 g
Monounsaturated	19.5 g
Polyunsaturated	65.7 g
Protein	0 g
Vitamins	Quantity %DV†
Vitamin E	274% 41.08 mg
Vitamin K	5% 5.4 µg
Units µg = micrograms • mg = milligrams IU = International units	

Olive oil is a liquid fat obtained from olives (the fruit of *Olea europaea*; family Oleaceae), a traditional tree crop of the Mediterranean Basin. It consists mainly of oleic acid (up to 83%), with smaller amounts of other fatty acids including linoleic acid (up to 21%) and palmitic acid (up to 20%). Extra virgin olive oil is required to have no more than

0.8% free acidity and is considered to have favorable flavor characteristics. There are five different types of Olive Oil:

1. Extra Virgin Olive Oil
2. Virgin Olive Oil
3. Refined Olive Oil
4. Olive Pomace Oil
5. Lampante Oil

Olive oil	
Nutritional value per 100 g (3.5 oz)	
Energy	3,699 kJ (884 kcal)
Carbohydrates	0 g
Fat	100 g
Saturated	14 g
Monounsaturated	73 g
Polyunsaturated	11 g
omega-3	0.8 g
omega-6	9.8 g
Protein	0 g
Vitamins	Quantity %DV†
Vitamin E	93% 14 mg
Vitamin K	57% 60 µg
Minerals	Quantity %DV†
Iron	4% 0.56 mg
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Link to USDA Database entry	
Units µg = micrograms • mg = milligrams IU = International units	

## Palm Oil & Palm Olein

### Palm Oil

Palm oil is extracted from the flesh of the fruit of E. Guineensis using pressure. In its unrefined form, the palm oil is bright orange in color due to high amounts of carotene pigments. The oil is semi-solid at room temperature and is highly resistant to oxidation and prolonged exposure to heat. Palm oil is widely used in margarine and vegetable shortenings.

### Palm Olein

When the semi-solid palm oil is refined, it separates into palm olein and palm stearine. The palm olein has different characteristics than the palm oil, most notably that it remains completely liquid at room temperature. It is highly heat resistant, similar to palm oil, and it also resists the formation of breakdown products during frying and increases the shelf life of many products.

Semi-solid palm oil is used more frequently as a fat in bakery products, whereas liquid palm olein is considered the "gold standard" and is the most widely used oil for frying in the world.

### Nutrition Facts

Calories 884 (per 100g)	
% Daily Value*	
Total Fat 100 g	153%
Saturated fat 49 g	245%
Polyunsaturated fat 9 g	
Monounsaturated fat 37 g	
Cholesterol 0 mg	0%
Sodium 0 mg	0%
Total Carbohydrate 0 g	0%
Dietary fiber 0 g	0%
Sugar 0 g	

Protein 0 g	0%
Vitamin A	0%
Calcium	0%
Vitamin B-6	0%
Magnesium	0%
Vitamin C	0%
Iron	0%
Vitamin B-12	0%

### **Refined, Bleached & Deodorised (RBD)**

Refined, Bleached & Deodorised (RBD) Palm Olein is obtained from fractionating refined palm oil to separate liquid parts (olein) from solid parts (stearin). RBD palm olein is used as cooking oil as well as frying oil for food industries such as salad and cooking oils in households, industrial frying fat of instant noodles, potato chips, doughnuts, condensed milk, snack food and ready-to-eat food. It is also used as a raw material for margarine and shortening.

RBD Palm Olein is cholesterol-free and contains vitamin D and E. It has high stability to oxidation and is nutritionally healthy with a balanced composition. Emulsifying agents may be added along with permitted colors, flavors and other ingredients as desired to suit final product application.

HAS Oils & Fats Sdn Bhd produces SuperChef brand of RBD Palm Olein and offers the following grades for export from Malaysia:

### **RBD Palm Olein CP6, Super Palm Olein and Double Fry Olein.**

Palm oil is semi-solid at room temperature (20°C). The liquid portion could be physically separated from the solid portion of palm oil by fractionation. After fractionation the liquid portion is called "palm olein", which is commonly bottled and sold as cooking oils. The solid fat portion is called "palm stearin" and it is commonly used to formulate trans-free fats such as margarine, shortening and vegetable ghee.

Palm Olein is further fractionated to a more liquid fraction called "Super Palm Olein". Super Palm Olein has an iodine value of 60-63. Super Palm Olein is more suited to cooler climates and has cloud points of about 2°C-5°C. Because of its fatty acid composition and good oxidative stability super refined palm olein is excellent to be used as liquid cooking oil and all the more suitable for frying. Apart from its high quality performance, the added advantage is it does not alter the taste or flavour of fried food as it does not have any distinct fragrance. Moreover, it leaves the meal completely dry with no dripping of oil.

PARAMETERS	LIMITS
Free Fatty Acid :	0.08% Max
Iodine Value (Wijs Method) :	60.0 Min.
Moisture & Impurities :	0.10% Max.
Slip Melting Point deg C (AOCS Cc 3-25) :	24 Max.
Cloud Point (deg C) :	6.0 Max.
Colour (5 ¼" Lovibond cell) :	3.0 R Max.

### RBD Palm Olein CP10

RBD Palm Olein CP10 Vegetable Cooking Oil is also known as **PORAM Standard RBD Palm Olein**.

Palm oil is semi-solid at room temperature (20°C). The liquid portion could be physically separated from the solid portion of palm oil by fractionation. After fractionation the liquid portion is called "RBD Palm Olein CP10", which is commonly bottled and sold as cooking oils. The solid fat portion is called "palm stearin" and it is commonly used to formulate trans-free fats such as margarine, shortening and vegetable ghee.

RBD Palm Olein CP10 has an iodine value of 54-56. Because of its fatty acid composition and good oxidative stability Palm Olein CP10 is excellent to be used as liquid cooking oil and all the more suitable for frying. Apart from its high quality performance, the added advantage is it does not alter the taste or flavour of fried food as it does not have any distinct fragrance. Moreover, it leaves the meal completely dry with no dripping of oil.

### Specifications

PARAMETERS	LIMITS
Free Fatty Acid :	0.08% Max
Iodine Value (Wijs Method) :	60.0 Min.
Moisture & Impurities :	0.10% Max.
Slip Melting Point deg C (AOCS Cc 3-25) :	24 Max.
Cloud Point (deg C) :	6.0 Max.
Colour (5 ¼" Lovibond cell) :	3.0 R Max.

### RBD Palm Olein CP8

RBD Palm Olein CP8 Vegetable Cooking Oil is also known as **Packer's Olein**.

Palm oil is semi-solid at room temperature (20°C). The liquid portion could be physically separated from the solid portion of palm oil by fractionation. After fractionation the liquid portion is called "palm olein", which is commonly bottled and sold as cooking oils. The solid fat portion is called "palm stearin" and it is commonly used to formulate trans-free fats such as margarine, shortening and vegetable ghee.

**Palm Olein** is further fractionated to a more liquid fraction. The Refined Palm Olein has an iodine value of 54-56. Because of its fatty acid composition and good oxidative stability **Palm Olein CP8** is excellent to be used as liquid cooking oil and all the more suitable for frying. Apart from its high quality performance, the added advantage is it does not alter the taste or flavour of fried food as it does not have any distinct fragrance. Moreover, it leaves the meal completely dry with no dripping of oil.

PARAMETERS	LIMITS
Free Fatty Acid :	0.10% Max.
Iodine Value (Wijs Method) :	50.0 Min.
Moisture & Impurities :	0.10% Max.
Slip Melting Point deg C (AOCS Cc 3-25) :	24 Max.
Cloud Point (deg C) :	10.0 Max.
Colour (5 ¼" Lovibond cell) :	3.0 R Max.