



Information About Oils

The National Edible Oil Distributors' Association

Sunflower Oil



Sunflower Oil – Information About Oils

Introduction

Whilst the vibrant strong sunflower is recognised worldwide for its beauty, it is also an important source of food. Sunflower oil is a valued and healthy vegetable oil and sunflower seeds are enjoyed as a healthy, tasty snack and nutritious ingredient to many foods.

Sunflower oil is obtained from the seeds within the brown hub in the centre of the sunflower plant. Each flower can develop up to 2000 sunflower seeds. The oil is pale yellow in colour but contains a level of natural waxes that give the oil a 'cloudy' appearance at cooler temperatures. These waxes can be removed by a process commonly known as winterisation.

The wild sunflower is native to North America but commercialisation of the plant took place in Russia. Evidence suggests that the plant was cultivated by Indians in present day Arizona and New Mexico about 3000 BC. The sunflower plant was taken to Europe by Spanish explorers sometime around 1500 but it was in 1716 an English patent was granted for squeezing oil from sunflower seed.

Growing

Sunflower is grown in relatively warm areas such as France, Hungary, Romania, Bulgaria, Spain, Italy, Ukraine and Russia. Sunflower oil for food is predominantly consumed in Spain, Germany, France, Italy, Romania and the UK. Sunflower seeds can yield up to 45% of sunflower oil and is an excellent source of protein for the animal feed industry. There are now two other types of sunflower available – High Oleic and Mid Oleic. These were developed with standard breeding techniques and differ in oleic levels with each one offering unique properties.

Typical Composition of Sunflower Oil

	%
<i>Saturates</i>	13
<i>Monounsaturates</i>	22
<i>Polyunsaturates</i>	65

Sunflower oil is rich in polyunsaturated fatty acids, i.e. omega-6 fatty acids in comparison to other edible oils. Sunflower oil is one of the best natural dietary sources of vitamin E and is used in blends with other vegetable oils, as well as in spreadable fats, to improve the vitamin E content of the products. Home users find it an excellent choice for any liquid oil application such as frying, baking and dressings.

Nutritional Profile

Due to its nutritional profile, sunflower oil can bear the following nutrition claims:

Nutrition Claims High polyunsaturated fat (more than 45% of the fatty acids are from polyunsaturated fats, which represent more than 20% of the energy content) High unsaturated fat (more than 70% of the fatty acids are from unsaturated fats, which represent more than 20% of the energy content) High vitamin E (more than 30% of Recommended Daily Allowances (RDA) of vitamin E set at 12 mg/day)

Health claims – Positive EFSA opinion Linoleic acid (omega-6 fatty acids) contributes to the maintenance of normal blood cholesterol concentrations. Essential fatty acids (omega-3 and omega-6 fatty acids) are needed for the normal growth of children. Vitamin E protects lipids, proteins and DNA against oxidative damages.

Oleic Content

Over the past few years there has been a big increase in the use of high oleic sunflower oil. High oleic sunflower has an increased monounsaturated fatty acid content, which gives better heat stability during frying than that of standard sunflower oil. Moreover, the saturated fatty acids are reduced, whereas the vitamin E content does not change. High oleic sunflower oil has been used in the crisp industries for many years due to its robust and stable properties and lower levels of saturated fats. It is also used in the fish and chip industry for the same reasons.

Standard sunflower oil contains less monounsaturated fatty acids, and is not suitable for heavy duty frying and that's one of the reasons for the development of the high oleic variety. The oil provides excellent stability without hydrogenation. High oleic sunflower oil offers a trans free oil solution for customers. The oil has many uses including bakery applications, spray coating oils for cereal, crackers and dried fruit. It is used in non-dairy creamers and many types of frying and other uses.

Mid oleic sunflower oil is fairly new to the market and was developed by standard hybrid procedures. Mid oleic sunflower oil is commonly used in the food industry in conditions with extra high cooking temperatures; this oil is also recognised for its health benefits of lower levels of trans fats. Sunflower oils are also used in cosmetic formulations as an emollient.