

# Wheat germ oil

Healthy thanks to antioxidants and vitamins



Wheat germ oil is the oil with the highest vitamin E content. This makes wheat germ oil richer than other edible oils.

## Qualities & Usage

We carry Wheat germ oil in the following qualities for you

Art.-Nr.	Quality	Cosmetics	Food	Pharmaceutics
316031	Wheat germ oil refined extracted Ph. Eur.	Yes		Yes
316030	Wheat germ oil refined extracted Food Ph. Eur.	Yes	Yes	Yes



# Wheat germ oil

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## Wheat plant & wheat grain

Wheat belongs to the genus *Triticeae* within the family of sweet grasses (*Poaceae*). The annual plant forms two to three dark green stalks with a height of up to one meter. At the end of each stalk there is an ear with spikelets and flowers. Compared to other sweet grasses, the ears are roundish and the leaf tubes are covered with cilia. The grains develop after self-pollination. About 25 to 40 grains are formed per spikelet. The thousand-grain mass is 40-65 grams.

Wheat is mainly known for its processing into bread and buns. The valuable wheat germ oil (*Tritium Vulgare* L.) is produced from the so-called heart of the wheat grain, the wheat germ. This makes up only 2-3% of the weight of the wheat grain. The grain consists of the endosperm, which makes up 90% of the total weight, the fruit and seed husk (bran) and the germ. Without the fertile germ, no new wheat can grow. Wheat germ oil is actually a by-product of flour production to extend the shelf life of flour. The wheat germ and endosperm are separated from each other in a complex process. The oil content of wheat germ is between 7 and 12%. In order to separate the oil from the germ, one uses the oil press. Here the wheat germ oil is either pressed (cold, warm) or extracted.

When growing wheat, a distinction is made between winter wheat and summer wheat. In Germany, 90% of the wheat is grown in winter. It tolerates frost down to -22°C and is sown in autumn. The demanding wheat requires heavy, nutrient-rich soils (clay or black earth) with a high water capacity.



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## Cultivation & yield

The largest wheat producers are China, India and Russia. Other typical growing countries are the USA, Canada, France, Turkey and Germany, but also Great Britain and Argentina.

The harvest time is in the middle of summer of the year after sowing.

The global annual production of wheat in 2018 was 735.18 Mio. tons.

## Background / history

Wheat is one of the oldest cultivated plants in the world and was already collected and cultivated 8,000 to 10,000 years ago. Today's wheat is the result of the crossing of several types of cereals and wild grasses. The oldest wheat findings date from the period between 7,800 and 5,200 B.C. Wheat is thus the second oldest type of grain after barley.

The origin of wheat is assumed in the north of the Arabian Peninsula, in Iran, Syria, Iraq and Saudi Arabia. In the Neolithic Age, wheat came to the Mediterranean region, was cultivated by the Romans in ancient times and reached Central Europe in the 11th century.

Today, wheat is a staple food in many countries and is one of the second most commonly grown cereals in the world after maize.



# Wheat germ oil

refined extracted Ph. Eur.

**Article number:**

316031

**INCI name:**

Triticum Vulgare Germ Oil / Triticum Aestivum Germ Oil

**CAS number:**

68917-73-7 / 8006-95-9 / 84012-44-2

**Botanical name:**

Triticum vulgare

**Usage:**

Cosmetics, Pharmaceuticals

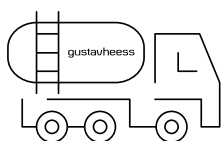
**Certificates:**

Kosher, NATRUE

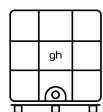
**Origin:**

Our GMO-free wheat is grown in China and refined in Europe.

## Our packaging



25,000 kg Tank truck



900 kg IBC



190 kg Drum



27 kg Canister

**General durability:**

canister 12 months, drum 18 months, IBC 6 months



# Wheat germ oil

refined extracted Ph. Eur.

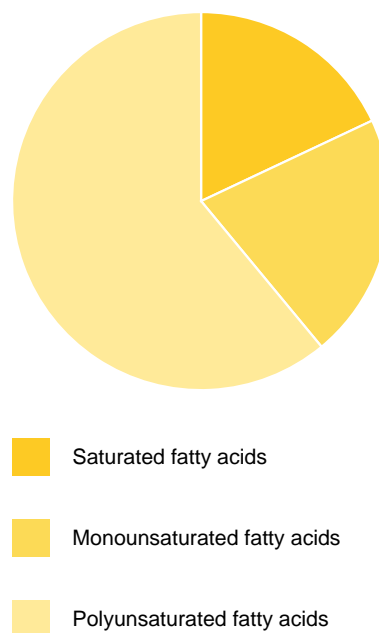
## Nutritional values & composition

Nutritional value	(per 100g)
Energy	3,700 kJ / 900 kcal
Fat	100 g
Saturated fatty acids	18 g
Monounsaturated fatty acids	21 g
Polyunsaturated fatty acids	61 g

### Composition

C16:0 Palmitic acid	14 – 19 %
C18:1 Oleic acid	12 – 23 %
C18:2 Linoleic acid	52 – 59 %

Fatty acids ratio





# Wheat germ oil

refined extracted Ph. Eur.



## Production & description

Wheat germ oil refined extracted Ph. Eur. is obtained from the germ of the grain of *Triticum aestivum* L. by extraction. It is then refined. The oil is prepared using materials and methods to ensure that the content of brassicasterol in the sterol fraction of the oil is not greater than 0,3%.

Clear, light yellow liquid, practically insoluble in water and ethanol 96%, miscible with light petroleum.



# Wheat germ oil

refined extracted Ph. Eur.

Gustav Heess

## Wheat germ oil refined extracted Ph. Eur.

In order to constantly guarantee a high quality and a high delivery reliability, a long-term cooperation is required. Our supply chain has existed for many years and gives our producers planning security so that they can concentrate fully on quality.

In order to have full control over the quality of our high-quality wheat germ oil refined extracted Ph. Eur., the refining is carried out by us in Europe.

All production steps and analyses comply with the requirements of the Pharmacopoeia Europaea (Ph. Eur.).



# Wheat germ oil

refined extracted Ph. Eur.

## Usage

- Wheat germ oil is skin tightening and very moisturizing
  - improves the elasticity of the skin
  - Is an important component in skin care
  - Is often used in anti-aging formulations
  - Suitable for hair care
  - Has no regreasing properties
  - As a component of massage oils
  - Used for stretch marks and scar treatment
  - Suitable as ointment base
- 
- To strengthen the immune system
  - To stimulate the metabolic processes
  - because of its natural content of active substances (vitamin E), wheat germ oil is used as a filling for soft gelatine capsules

### Cosmetics

### Pharmaceutics





# Wheat germ oil

refined extracted Ph. Eur.



## Sustainability & responsibility

Wheat is cultivated worldwide. Genetically modified wheat is becoming more and more widespread and in Germany, too. There have already been field trials with genetically modified wheat. We refrain from genetically manipulated varieties and have therefore been working with farmers from China for many years. They rely on GMO-free wheat varieties and provide the basis for our refined extracted wheat germ oil Ph. Eur., which we refine ourselves in Europe.



# Wheat germ oil

refined extracted Food Ph. Eur.

**Article number:**

316030

**INCI name:**

Triticum Vulgare Germ Oil / Triticum Aestivum  
Germ Oil

**CAS number:**

68917-73-7 / 8006-95-9 / 84012-44-2

**Botanical name:**

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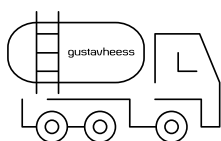
**Usage:**

Cosmetics, Food, Pharmaceuticals

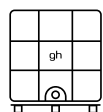
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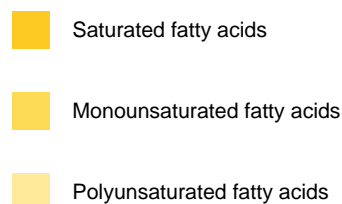
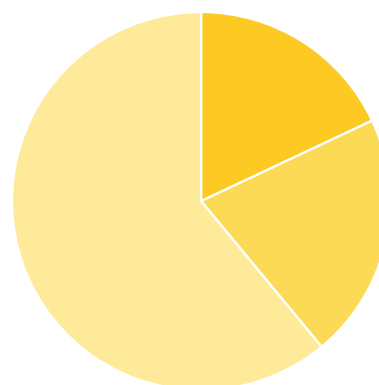
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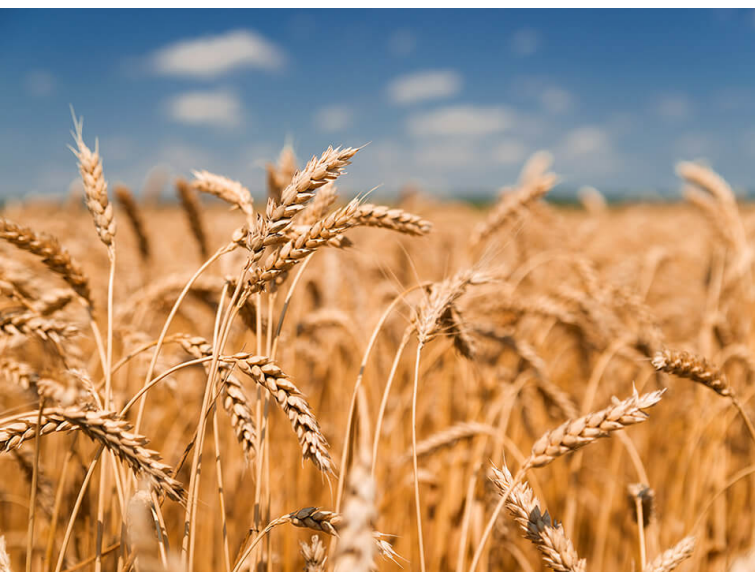
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## Usage

- Wheat germ oil refined extracted can also be used in cosmetics
- Is used as a food supplement
- Use as diet oil
- Wheat germ oil refined extracted Food Ph. Eur. can also be used in pharmaceutical industry, for example to strengthen the immune system

Cosmetics

Food

Pharmaceutics





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