Soybean oil

The versatile oil from the wonder bean

Soybean oil is a oil, which contains valuable unsaturated fatty acids, soy lecithin and also the essential alpha-linolenic acid.

Qualities & Usage

We carry Soybean oil in the following qualities for you

Art.-Nr.	Quality	Cosmetics	Food	Pharmaceutics
300031	Soybean oil produced from GMOs refined Ph. Eur.	Yes	Yes	Yes
300060	Soybean oil refined IP Ph. Eur.	Yes	Yes	Yes
300040	Soybean oil hydrogenated Ph. Eur.	Yes	Yes	Yes
300122	Organic soybean oil refined	Yes	Yes	Yes
300120	Organic soybean oil cold pressed	Yes	Yes	

Because of its amazingly diverse uses, including in modern food technology, soya is often referred to as "the miracle bean". Besides the main use of soybean oil in food, the pharmaceutical industry and cosmetics, the oil is also used in the technical industry for soap production and as stand oil for varnishes, oil paints, linoleum, printing inks and alkyd resins.

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Soybean oil

The versatile oil from the wonder bean

Soya plant & soybean

Soybean oil (also known as oleum soyae) is obtained as a co-product from the soybean. In the legume family (Leguminosae or Fabaceae), the soybean belongs to the subfamily of the papilionaceous plants (Faboideae). Due to its high protein content, the soya plant also belongs to the protein plants. The soybean is an annual herbaceous plant with brownish hairs. There are different varieties of the soya bean. High-growing varieties can reach a height of up to 2 meters. Most common, however, are upright growing varieties with a height of 20 to 80 centimeters. The green, thin stems are fine and densely haired. Soybeans have pronounced taproots up to 1.5 meters long. The soya plant lives in symbiosis with nitrogen-collecting nodule-bacteria that adhere to the roots of the plant. This is typical for the papilionaceous family. The term "nodule-bacteria" comes from the fact that the bacteria form small nodules on the roots. These are able to bind atmospheric nitrogen and make it available to the plant by converting it into high-quality protein. This favourable characteristic means that there is no need for artificial nitrogen fertilization of soya fields.

The green leaves are three to five in number with ovoid leaflets. They are also hairy on the edge and on the underside. Even as the soybeans ripen, the plant shed its leaves. The flowers of the soya plant are short-stalked, white or purple, self-pollinating and can be seen for about 3 to 4 weeks. It takes about five months from sowing to harvest. As fruits, the plant forms 3 - 5 cm long, brown-yellow hairy pods with usually 2 - 3 internal beans. Depending on the variety, these are white, yellow, green, brown or purple to black. The different varieties are distinguished by their level of ripeness, sizes, types, colours, oil content and intended use. Yellow seed kernels are used in oil production. Still unripe, green or yellow seed kernels are consumed as vegetables. Brown and black seeds are often used as animal feed. Soybean fields are brown and bare when harvested, because towards the end of the growing season the leaves of the plant wilt and fall off before the beans are ripe. The seeds contained in the pods have a protein content of between 35% and 50%, making them the grain fruits with the highest protein content. The oil content of the beans ranges between 15 and 21%.

The soya bean (Glycine max) is a subtropical plant but is now also cultivated in tropical climates and regions with a moderate climate. The plant therefore thrives best at high temperatures and, especially in the beginning, with plenty of water.

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Cultivation & yield

Soya is one of the most widespread agricultural crops in tropical countries. Nevertheless, North and South America are leaders in both the production and export of soybeans. The second most important soybean producers and exporters are Brazil and Argentina. The most outstanding importer of soybeans or direct soybean meal is the EU. This is mainly to cover the demand for animal feed. Approximately 3.0% of the global harvest is produced in Europe.

The thousand grain mass ranges from 50 - 450 grams. The soybeans can be harvested fully automatically by combine harvesters. The harvest time is September/October in the northern hemisphere and February/March in the southern hemisphere. Soya is the economically most important seed oil plant in the world - also in terms of the area under cultivation. Soybean oil is the most produced vegetable oil in world oil production, after palm oil and before rapeseed oil, with a share of over 30%.

The global annual production of soya was approximately 348,712,300 tons in 2018.

Background / history

The original soya bean is derived from the wild form Glycine soya and comes from Asia. The oldest evidence of human use of non-domesticated soya seeds comes from northern China (7,000 BC) and Japan (5,000 BC). In medical texts from China soy was first mentioned about 6,000 years ago. In 2,853 BC, the ruler Sheng-Nung of China proclaimed the soybean to be one of five sacred grains (in addition to millet, wheat, beans and rice). Between the 1st century and the year 1,100, soy was also exported to neighboring countries such as Burma, Japan, India, Indonesia, Malaysia, Nepal, Thailand, the Philippines and Vietnam. For the people of China, Japan, Korea, Indonesia and the Philippines, soy has been one of the most important foods for several centuries, alongside meat, milk, bread and oil. This also explains why soy is often called "gold out of the ground". Alternatively, the soya bean has also been called the "golden bean" and also the "miracle fruit". Engelbert Kaempfer discovered the soya bean for Europe, he first described it after his trip to Japan in 1691/92. There is first evidence from 1737 that the soya bean was grown in botanical gardens in Holland, and in France in 1739. In Europe, however, the cultivation never gained any importance. Samuel Bowen first brought the soybean to the USA in 1765. Until the beginning of the 20th century, soya remained virtually unknown outside its Asian homeland. It was only after World War II that the plant was spread in North and South America.

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Soybean oil

produced from GMOs refined Ph. Eur.

Article number:
300031

INCI name:
Glycine Soja Oil

CAS number:
8001-22-7

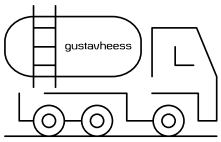
Botanical name:
Glycine max

Usage:
Cosmetics, Food, Pharmaceutics

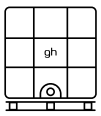
Certificates:
Kosher

Origin:
The soya beans of our soya oil are sourced worldwide.

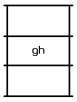
Our packaging



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

Soybean oil

produced from GMOs refined Ph. Eur.

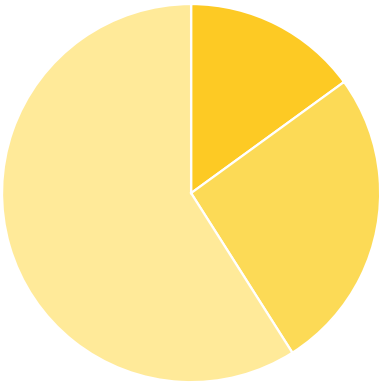
Nutritional values & composition

Nutritional value	(per 100g)
Energy	3,700 kJ / 900 kcal
Fat	100 g
Saturated fatty acids	15 g
Monounsaturated fatty acids	26 g
Polyunsaturated fatty acids	59 g

Composition

C16:0 Palmitic acid	9 – 13 %
C18:1 Oleic acid	17 – 30 %
C18:2 Linoleic acid	48 – 58 %
C18:3 Linolenic acid	5 – 11 %

Fatty acids ratio



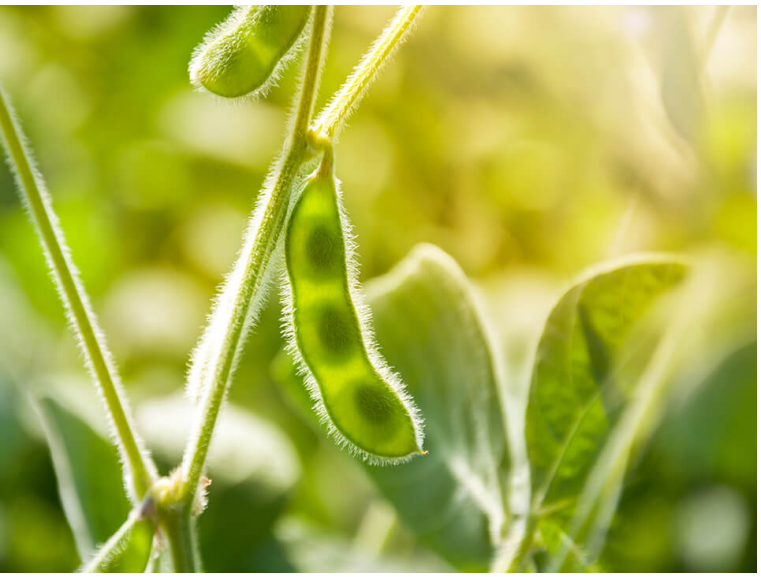
Saturated fatty acids

Monounsaturated fatty acids

Polyunsaturated fatty acids

Soybean oil

produced from GMOs refined Ph. Eur.



Production & description

Soybean oil is obtained from genetically modified soybeans (seeds of Leguminose Glycine max. L.) by pressing or by extraction and then refined. The oil is produced using methods and materials that ensure that the brassicasterol content in the sterol fraction of the oil is a maximum of 0.3%.

Clear, pale yellow liquid; practically insoluble in ethanol 96%, mixable with petroleum ether (distillation range 50 - 70 °C).

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Gustav Heess

Soybean oil produced from GMOs refined Ph. Eur.

After harvesting, the soybeans are dried, cleaned, peeled, crushed and treated with heat. In the next step, the oil is extracted from the beans by pressing, but usually by (solvent) extraction. In the next step our soybean oil is gently refined.

In contrast to commercially available soybean oil, our soybean oil has a higher quality standard. Our soybean oil is always specified according to the latest version of the European Pharmacopoeia (Ph. Eur.). Therefore, we monitor our soybean oil produced from GMO refined Ph. Eur. according to a special test plan and have designed our complete supply chain including quality control and storage in such a way that mixing with other oils is excluded.

This allows us to offer both GMO (Genetically Modified Organisms) and Soy IP (Identity preservation) oil.

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Soybean oil

produced from GMOs refined Ph. Eur.

Usage

Cosmetics

- Soybean oil makes the skin soft and smooth
- The high proportion of alpha-linolenic acid helps to regenerate the skin
- The lecithin it contains penetrates deep into the horny layer of the skin
- Well suited for brittle and cracked skin
- Soybean oil restores moisture to dry skin
- Is used in skin creams and shower baths

Food

- Basis for wide use in the food industry, e.g. in margarine, edible oil, salad dressing, mayonnaise, potato chips and in deep-frozen products
- For the manufacture of confectionery
- The smoke point of soybean oil is 230°C and is therefore ideal for cooking and baking
- Production of baby food

Pharmaceutics

- Is used for skin diseases
- Used as an active ingredient carrier for lipid-soluble plant ingredients and vitamins
- Use as energy source for intravenous nutrition

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Soybean oil

produced from GMOs refined Ph. Eur.

Sustainability & responsibility

The soya extraction meal and soya press cake resulting from oil production is generally used as animal feed in animal husbandry. Accordingly, there is no waste in the production of soybean oil and the product is fully recycled. Due to its enormous economic importance, the cultivation of transgenic soya, which has been made resistant to the use of herbicides, is now predominant, especially in the USA and Argentina. If one compares the area under cultivation of genetically modified material with the total area under cultivation of the plant, soya clearly occupies a leading position among all crops. Today, more than half of the world's soybean harvest is GMO soybean. However, no other agricultural crop can produce such a high yield of protein as soya. That is why the importance of soybeans for feeding mankind will continue to increase. The growing plants bind nitrogen and thus have positive effects on soils. This positive characteristic of the plant means that there is no need for artificial nitrogen fertilization on soybean fields.

Soya is traded in bulk product and therefore the differentiation between soybean GMO and GMO free soybean is important already at harvest. Harvest, transport, processing and storage must be clearly separated to avoid mixing. We have organized our quality controls and storage according to the principle of strict separation to ensure that these two products are always clearly and verifiably separated.

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Soybean oil

refined IP Ph. Eur.

Article number:
300060

INCI name:
Glycine Soja Oil

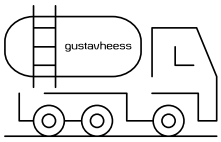
CAS number:
8001-22-7

Botanical name:
Glycine max

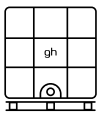
Usage:
Cosmetics, Food, Pharmaceutics

Certificates:
NATRUE, Kosher

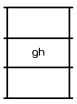
Our packaging



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

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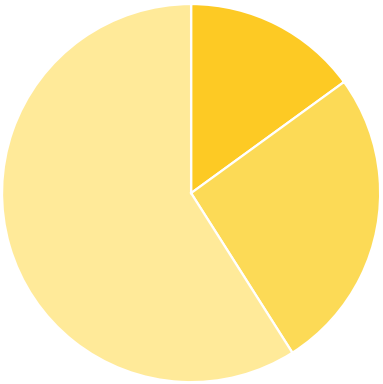
Nutritional values & composition

Nutritional value	(per 100g)
Energy	3,700 kJ / 900 kcal
Fat	100 g
Saturated fatty acids	15 g
Monounsaturated fatty acids	26 g
Polyunsaturated fatty acids	59 g

Composition

C16:0 Palmitic acid	9 – 13 %
C18:1 Oleic acid	17 – 30 %
C18:2 Linoleic acid	48 – 58 %
C18:3 Linolenic acid	5 – 11 %

Fatty acids ratio



Soybean oil

hydrogenated Ph. Eur.

Article number:
300040

INCI name:
Glycine Soja Oil

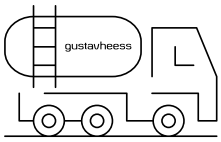
CAS number:
8001-22-7

Botanical name:
Glycine max

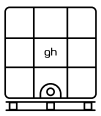
Usage:
Cosmetics, Food, Pharmaceutics

Certificates:
Kosher

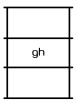
Our packaging



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

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Soybean oil

hydrogenated Ph. Eur.

Nutritional values & composition

Nutritional value	(per 100g)
Energy	3,700 kJ / 900 kcal
Fat	100 g
Saturated fatty acids	15 g
Monounsaturated fatty acids	26 g
Polyunsaturated fatty acids	59 g

Composition

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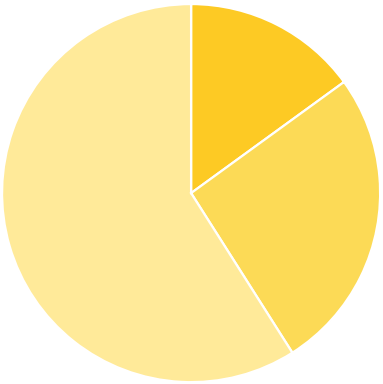
Fatty acids ratio



Saturated fatty acids

Monounsaturated fatty acids

Polyunsaturated fatty acids

Organic soybean oil

refined

Article number:
300122

INCI name:
Glycine Soja Oil

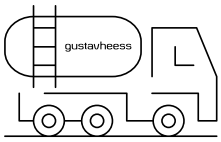
CAS number:
8001-22-7

Botanical name:
Glycine max

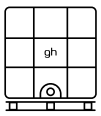
Usage:
Cosmetics, Food, Pharmaceutics

Certificates:
Kosher, EU organic

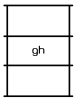
Our packaging



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

Organic soybean oil

refined

Nutritional values & composition

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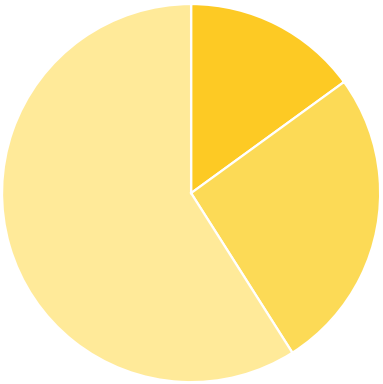

Saturated fatty acids

Monounsaturated fatty acids

Polyunsaturated fatty acids

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Organic soybean oil

cold pressed

Article number:
300120

INCI name:
Glycine Soja Oil

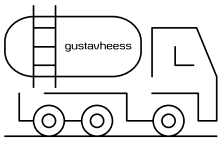
CAS number:
8001-22-7

Botanical name:
Glycine max

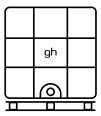
Usage:
Cosmetics, Food

Certificates:
Kosher, EU organic

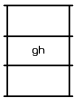
Our packaging



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

Organic soybean oil

cold pressed

Nutritional values & composition

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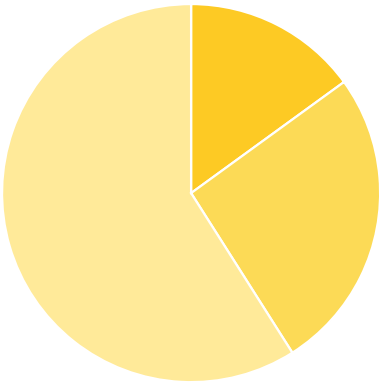

Saturated fatty acids

Monounsaturated fatty acids

Polyunsaturated fatty acids

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