



PharmaGnose

# Fleur de Safran

*Crocus sativus*, also known as saffron crocus, is known since the antiquity in Greece and the Mediterranean. It was known as a plant, dye, medicinal herb or flavouring, was known in both ancient Greece and other ancient people. The Minoans portrayed saffron in their palace frescoes by 1500–1600 BC; they hint at its possible use as a therapeutic drug. Ancient Greek legends told of sea voyages to Cilicia, where adventurers sought what they thought to be the world's most valued threads. Cleopatra used *Crocus* in her cosmetics, the ancient Phoenicians in their offerings to the goddess Astarte, Homer mentions it in his writings and it is even found in the Old Testament. Nowadays, it is still used extensively as a spice in various foods in every economically developed country, especially in Europe. In popular medicine, *Crocus sativus* it is used as an emmenagogue, antispasmodic and stimulant. In small doses it relieves kidney pains, stimulates the appetite and it facilitates digestion. In addition it limits convulsions, hysterics, nervous colics and whooping cough. Externally it is used to cure pimples, inflammations and breast diseases. From the ancient times, saffron was considered to have aphrodisiac properties. *Crocus* petals (aqueous/ethanolic extract) was found to be effective similar to fluoxetine in the treatment of mild to moderate depression [1,2,3,4].

[1] Bashti, E. Moshiri, A. Noorbala et al. Progress in neuro-psychopharmacology and neurological psychiatry, Vol. 31, Issue 2, p. 439–442 (2007).

[2] J. Escribano, G.L. Alonso, M. Coca-Prados, J.A. Fernandez Crocin, Saffranal and picrocrocin from saffron (*Crocus sativus* L.) inhibit the growth of human cancer cells in vitro, Cancer Letters, 100 (1996), pp. 23–30

[3] H. Hosseinzadeh, V. Khosravan Anticonvulsant effects of aqueous and ethanolic extracts of *Crocus sativus* L. stigmas in mice Achieve of Iranian Medicine, 5 (2002), pp. 44–47

[4] H. Hosseinzadeh, H.M. Younesi Antinociceptive and anti-inflammatory effects of *Crocus sativus* L. stigma and petal extracts in mice BMC Pharmacology, 2 (2002), pp. 1–8

## What is Fleur<sub>de</sub>Safran?

**Fleur<sub>de</sub>Safran** is a standardized extract of *Crocus sativus* petals. It is obtained through “green” extraction of the petals using hydroalcoholic mixtures. It is enriched in phenols, such as flavonoids and anthocyanins. These compounds are widely known for their strong antioxidant properties.

## Composition

**Fleur<sub>de</sub>Safran** contains mainly:

- ▶ flavonol glycosides (kaempferol 7-O-glucopyranosyl-3-O-sophoroside, kaempferol 3-O-sophoroside, kaempferol 3-O-sophoroside-7-O-glucoside, kaempferol-3-O-β-glucopyranoside, kaempferol-3-O-β-arabinofuranoranoside, kaempferol-3-O-β-glucopyranoside, kaempferol-3-O-(6"-O-p-coumaroyl)-β-glucopyranoside, quercetin 3,7-O-diglucoside, quercetin-3-O-β-glucopyranoside, quercetin-3-O-β-galactopyranoside)
- ▶ anthocyanins (delphinidin 3,7-O-diglucoside, petunidin 3-O-diglucoside)
- ▶ phenylethanol-β-glucopyranoside



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# Fleur<sub>de</sub> Safran

## Information datasheet

Botanical cosmetic ingredient

### Botanical product information

**Product name:** Fleur<sub>de</sub>Safran

**Common or usual name of product:** *Crocus sativus* petals extract

**General product information:** *Crocus sativus* petals extract standardized to more than 15% total polyphenols

**crocus petals  
hydroalcoholic  
extract**

**polyphenols  
adsorption  
in resin column**

### Botanical manufacturing information

**Manufacturing site:** PharmaGnose SA, Greece

**Mode of manufacturing:** Flow chart attached

**Agricultural process:** *Crocus sativus* traditional cultivation

### General specifications

**Appearance:** Violet blue powder

**Solubility:** Soluble in water, ethanol and hydroalcoholic mixtures

**Total polyphenols:** ≥15% (Folin Ciocalteu)

**Origin/Obtaining method:** *Crocus sativus* petals/Chromatographic Natural Extraction

**Shelf life:** 24 months unopened stored in a cool and dry location

**Others:** Fleur<sub>de</sub>Safran must be used after opening. Once open, it is recommended to keep the product closed, store in a dry place and keep out of the damp. As Fleur<sub>de</sub>Safran is an entirely natural extract, there may be a slight variation in colour from batch to batch. This circumstance in no way signifies any alteration in the quality of the product.

**polyphenols  
recovery  
&  
enrichment**

**spray-drying**

### Contact:

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