

# Starflower

**Plant part:** Aerial parts

**Scientific name:** *Borago officinalis*

**INCI name:** Borago Officinalis Extract

**IECIC 2021 name:** BORAGO OFFICINALIS EXTRACT





# Starflower

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**Product Name:** Starflower

**Plant Name:** Borage

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*Borago officinalis*, also known as a Starflower, is an annual herb in the flowering plant family, Boraginaceae. It is native to the Mediterranean region, but now grows in temperate regions all over the world.

The leaves are edible and the plant is grown in gardens for that purpose in some parts of Europe.



## Harvesting Borage

Our borage is organically grown and harvested from established organic Scottish farms.

The farmers are always looking for ways to achieve sustainability and produce as little waste as possible, in line with our company values.



**Borage**

## Traditional Use

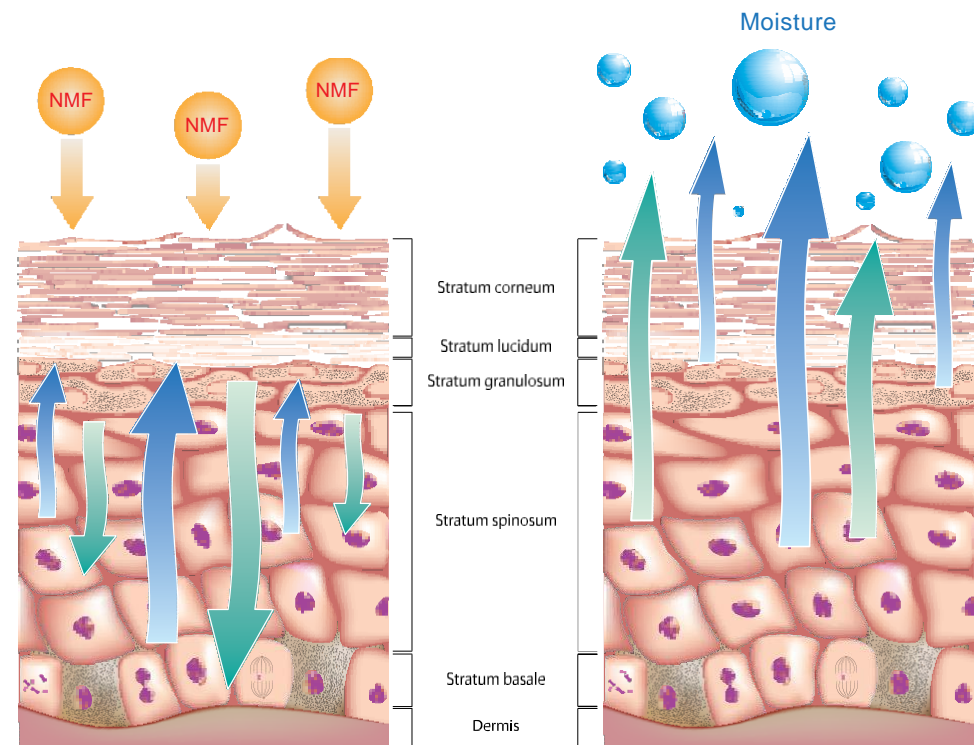
Historically, borage has been used in hyperactive gastrointestinal, respiratory and cardiovascular disorders, such as colic, asthma, bronchitis as well as urinary/bladder disorders. In recent herbal medicine, borage is used for the treatment of inflammatory symptoms including arthritis, rheumatism and inflammatory skin problems. Extracts of borage leaves show strong radical scavenging activity as a result of high rosmarinic acid levels.

[1] The detection of radical scavenging compounds in crude extract of borage (*Borago officinalis* L.) by using an online HPLC-DPPH method, Bandoniene and Murkovic, J Biochem Biophys Methods, 2002, 53, p.45-49

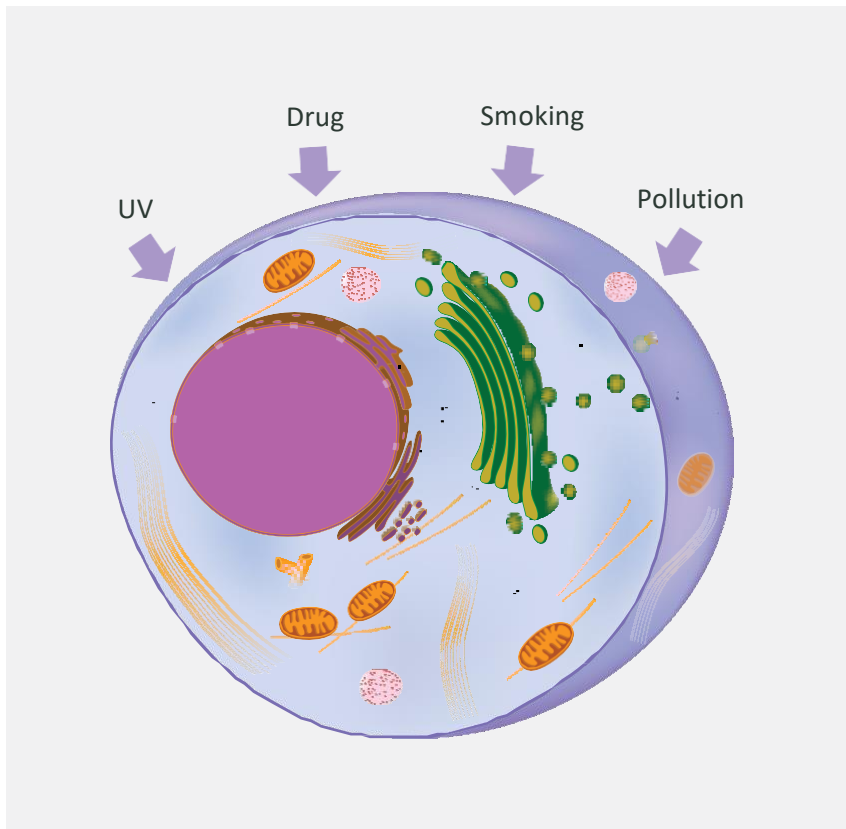
[2] Determination of rosmarinic acid in sage and borage leaves by high performance liquid chromatography with different detection methods, Bandoniene, et al., J Chromatogr Sci, 2005, 43, p.372-376

# Skin Structure

The retention of water in the Stratum corneum (SC) is dependent on two major components: (1) the presence of natural hygroscopic agents within the corneocytes (collectively referred to as natural moisturizing factor) and (2) the SC intercellular lipids orderly arranged to form a barrier to transepidermal water loss (TEWL). The water content of the SC is necessary for proper SC maturation and skin desquamation. Increased TEWL impairs enzymatic functions required for normal desquamation resulting in the visible appearance of dry, flaky skin.



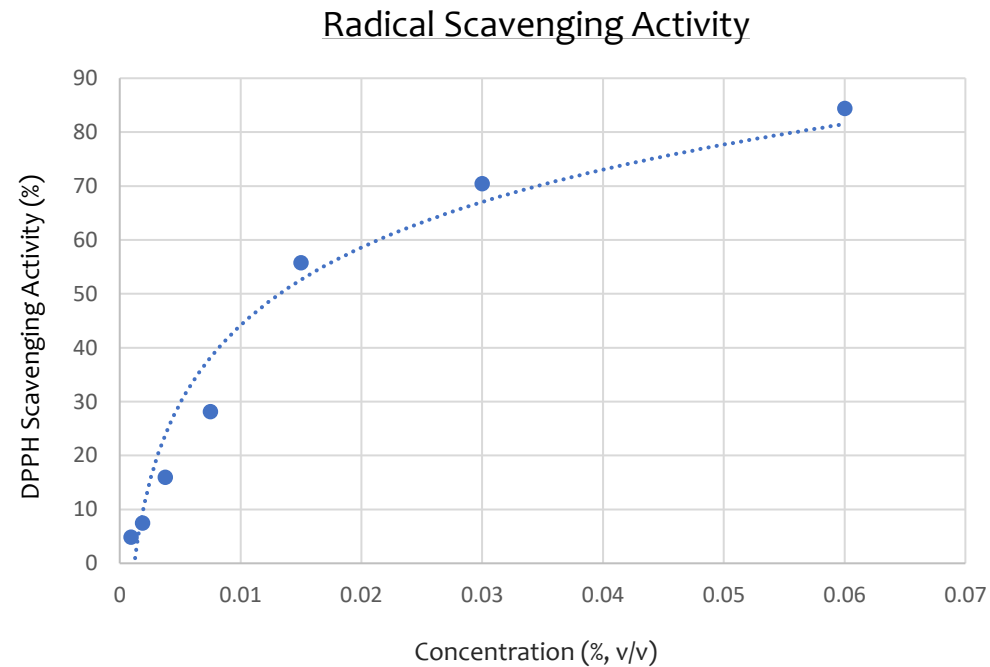
# Antioxidants



## ***Why are they important?***

Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS).

# Antioxidant Effects of Starflower (*in vitro*)



Antioxidants from Starflower can inhibit the generation of ROS and in turn inhibit cellular damage. Good antioxidant activity is critical for anti-ageing agents in skin care products.

# Reported functions

Ingredient : BORAGO OFFICINALIS EXTRACT 

INCI Name	BORAGO OFFICINALIS EXTRACT
<b>Description</b>	Borago Officinalis Extract is an extract of the herb, Borago officinalis L., Boraginaceae
INN Name	
Ph. Eur. Name	
CAS #	84012-16-8
EC #	281-661-4
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	<ul style="list-style-type: none"><li>• <a href="#">EMOLLIENT</a></li><li>• <a href="#">SKIN CONDITIONING</a></li></ul>
SCCS opinions	
Identified INGREDIENTS or substances e.g.	

Source: European Commission [[https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details\\_v2&id=74512](https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=74512)]

# Product Information

**Product Name :** Starflower


**INCI name :** Borago Officinalis Extract  
(China Compliant)

**Dosage :** 1 – 3%

**Formulation :** Add to the formulation  
when the temperature is lower than 55°C.  
Recommended to add after the cooling process.

**Storage :** Avoid direct light or UV.  
Keep it in a cool and dry area.





## The Secrets of Caledonia

The Secrets of Caledonia (TSOC) is a supplier of natural cosmetic ingredients inspired by Scottish traditional herbal medicine. Taking advantage of Scotland's biodiversity and working in collaboration with established Scottish herbalists, we aim to provide the most effective and innovative natural ingredients at the highest quality.



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