

# Salvation

Plant part: Leaf

Plant name: Sage

Scientific name: *Salvia officinalis*

INCI name: Salvia Officinalis Leaf Extract

IECIC 2015 name: SALVIA OFFICINALIS (SAGE) LEAF EXTRACT

# Plant Story

- *Salvia officinalis* is an herb indigenous to the Mediterranean, yet now grows throughout the world.
- The perennial plant is an aromatic herb, with very strong-smelling leaves, that can reach around 60 cm in height. The leaves are oval shaped with a grey-green/ white-green colour. Flowers can be a variety of colours from purple to red to white and normally appear during early summer.
- It has a long medicinal history, with its name in Latin, 'salvere', meaning 'to be saved', a reference to the plant's medicinal properties.
- Sage is used in European herbal medicine for its astringent, antiseptic and healing properties.

# Harvesting Salvation



Sage leaves are harvested by picking leaves/ cutting small sprigs off the plant and can occur a maximum of three times over one year.



Leaves are normally removed before the plant begins to flower and then dried.



Drying of sage leaves should occur in a well-ventilated location with limited sunlight and, ideally, air dried.



# Uses of Sage



- Commonly used in cooking as a flavouring ingredient, either in fresh or dried form, and is thought to help with digestion.
- Sage can be used as a tonic when brewed as a tea.
- The plant may be effective at alleviating sore throats and mouth ulcers due to sage's antiseptic properties.
- Sage was suggested in Medieval Europe, to help improve memory/ wisdom.
- There is also potential to use sage as a relaxant to reduce excitability and reduce nervousness.

# Scientific Research

- Studies demonstrate the anti-inflammatory properties of sage leaves both *in vitro* and *in vivo*.
- The major diterpenes of sage leaves: carsonol and carsonic acid exhibited antioxidant and anti-inflammatory effects *in vitro*.
- An *in vivo* test, using a sage extract cream was shown to have a skin smoothing effect, shown by a UV-induced erythema test.
- Antioxidant and anti-viral properties have been shown from aqueous extracts of sage.

[1] The flavonoids of *Tanacetum parthenium* and *T. vulgare* and their anti-inflammatory properties, Williams *et al.*, *Phytochem*, 1999, 51(3), p.417-423

[2] The anti-inflammatory natural product parthenolide from the medicinal herb feverfew directly binds to and inhibits I $\kappa$ B kinase, Kwok *et al.*, *Chem Biol*, 2001, 8(8), p.759-766

[3] Chemistry, Pharmacology, and Medicinal Property of Sage (*Salvia*) to Prevent and Cure Illnesses such as Obesity, Diabetes, Depression, Dementia, Lupus, Autism, Heart Disease, and Cancer, Hamidpour *et al.*, *J Tradit Complement Med.*, 2014, 4(2), p. 82-88.

Key  
Functions



ANTIOXIDANT



ANTI-INFLAMMATORY

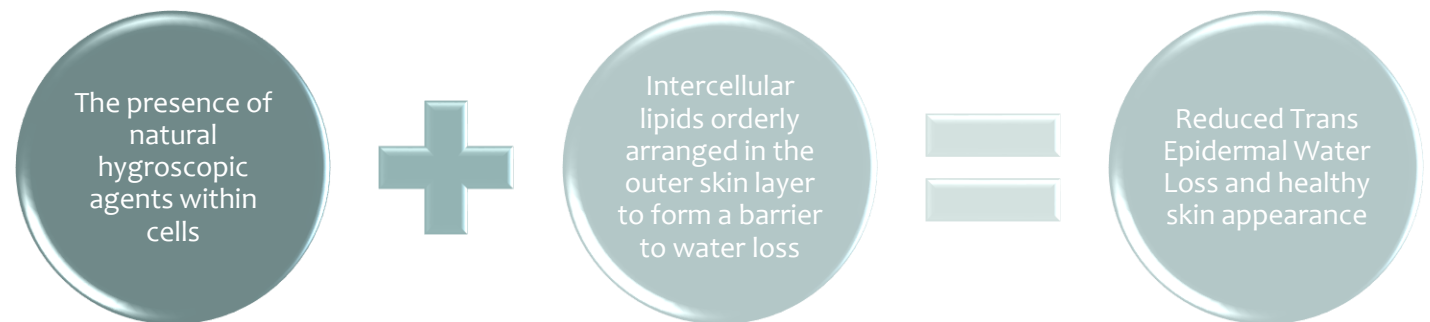


# Skin Structure

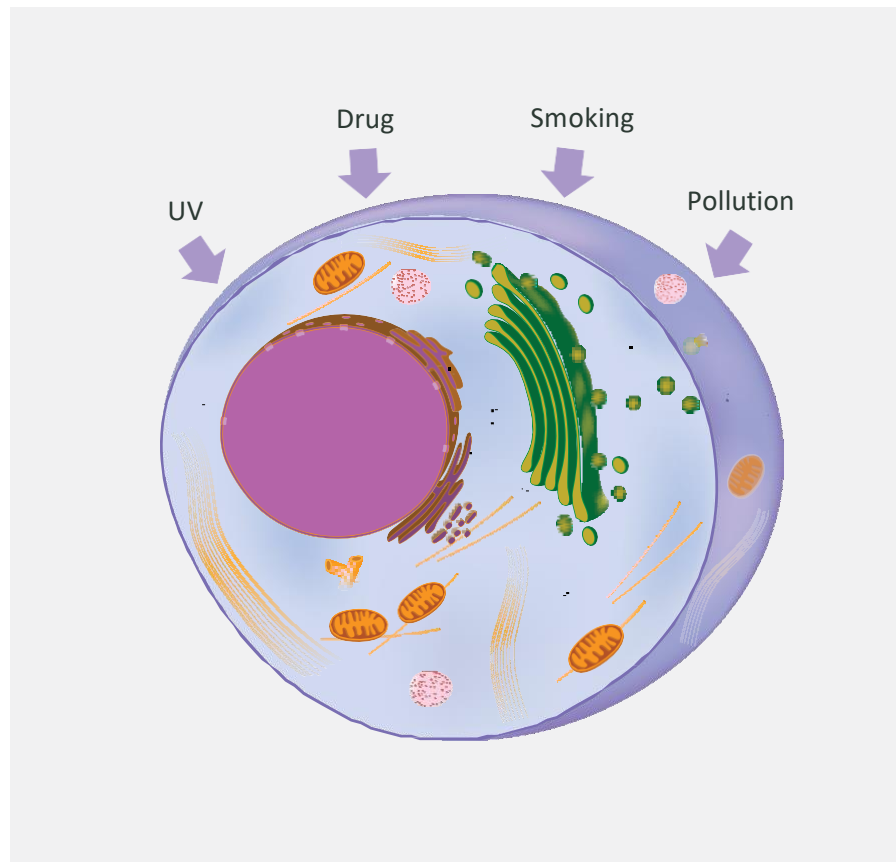
## Four Layers

- Stratum corneum
- Stratum lucidum
- Stratum granulosum
- Stratum spinosum

### ➤ Retention of water in the skin



# Antioxidants



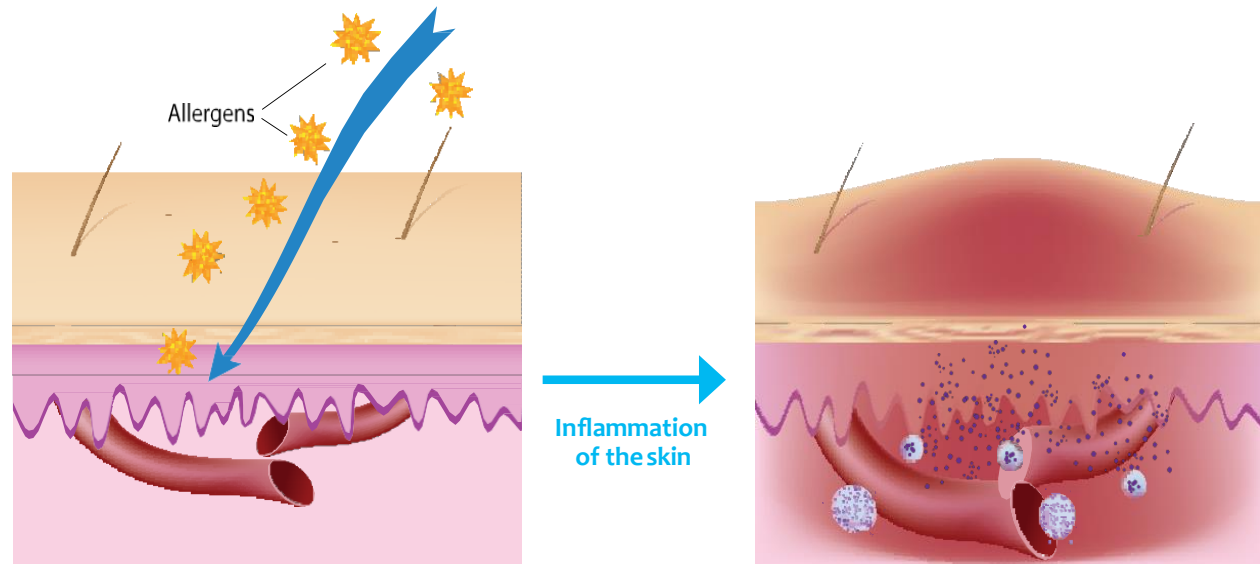
Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS).



Antioxidants from Royasil can inhibit the generation of ROS and in turn inhibit cellular damage.

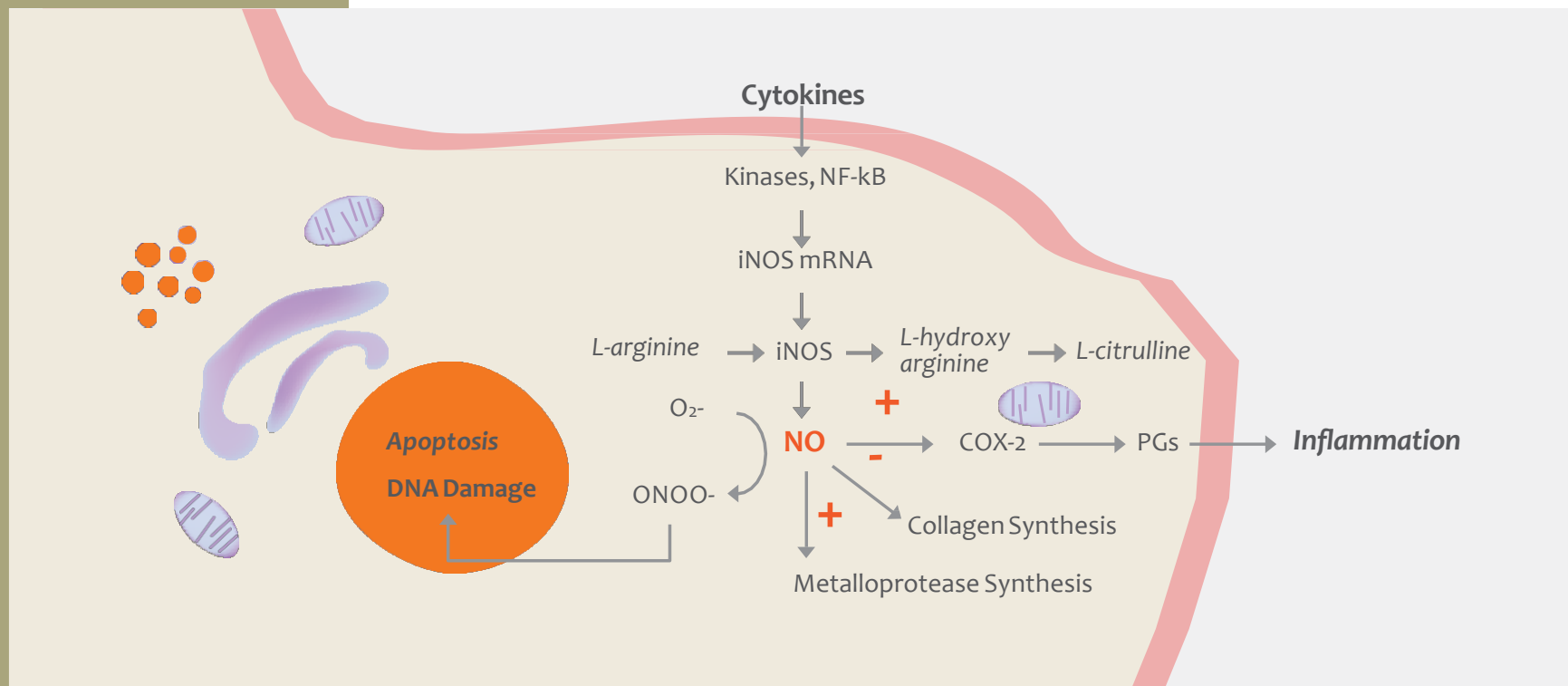


# What is Inflammation?



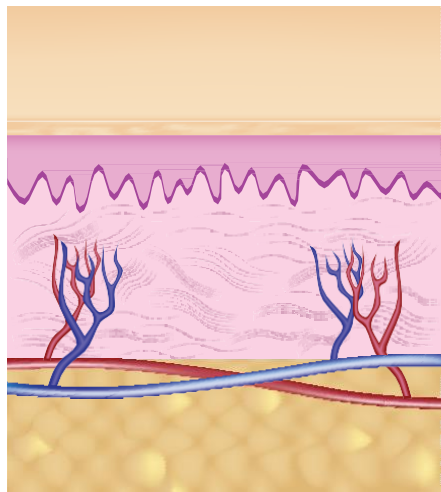
Inflammation is part of the complex biological responses to wide range of harmful stimuli including injury, tissue necrosis, infection, and irritants. The purpose of inflammation is to destroy (or contain) the damaging agent, initiate repair processes and return the damaged tissue to useful function. The symptoms of inflammation are redness, swelling, heat, and pain, which are caused by increased blood flow into tissue. The immune system is responsible of protecting our body from the harmful stimuli and of maintaining homeostasis. Disorders of the immune system can result in autoimmune diseases, inflammatory diseases, and cancer. In an attempt to protect the body, the immune system might overreact to the stimuli, and this might cause allergy or inflammatory reactions.

# Inflammation Mechanism

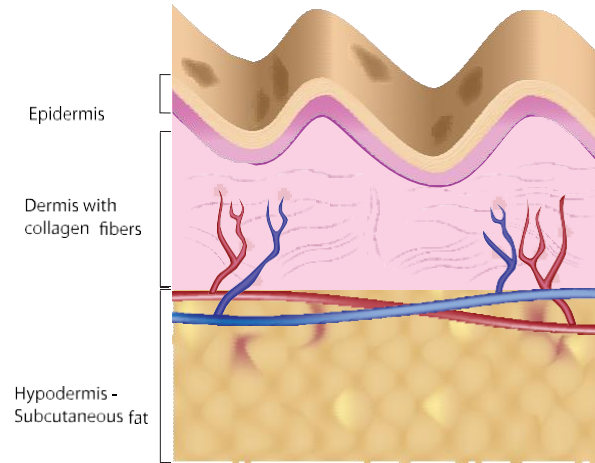


# Skin Ageing and Wrinkle Formation

## Younger Skin



## Older Skin

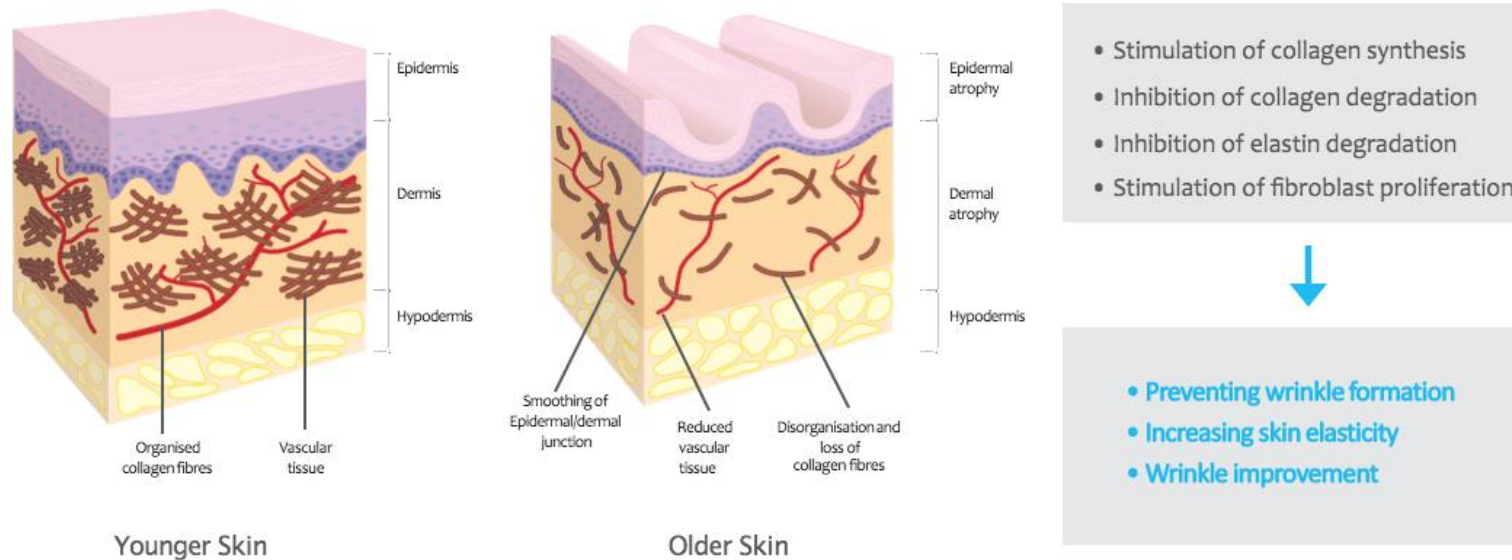


### ⚙️ Skin ageing is noted by

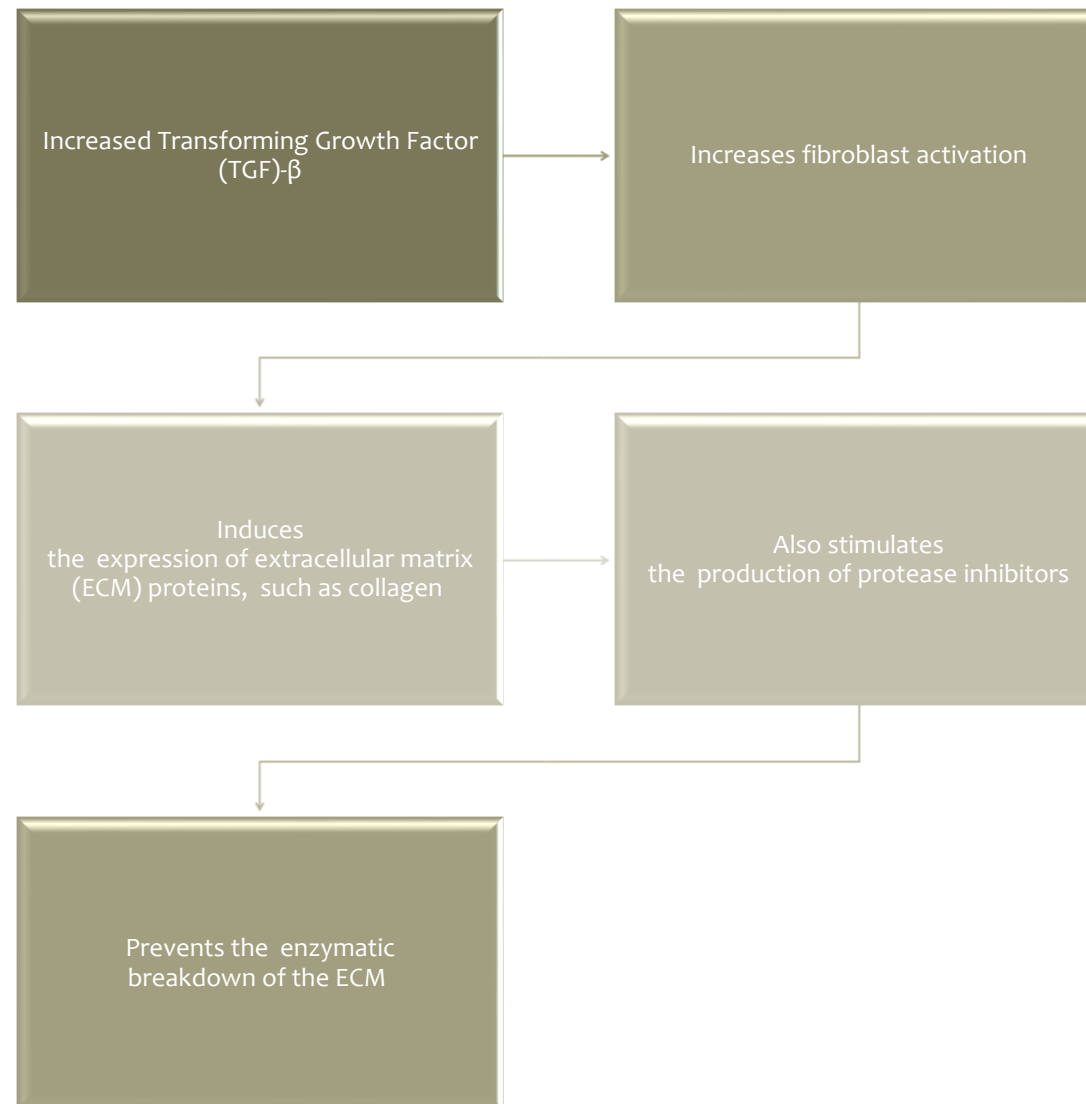
- a decrease of elasticity
- formation of wrinkles and fine lines
- degradation of collagen
- thinner and weaker skin
- damaged connective tissues

Skin changes with increasing age due to both intrinsic and extrinsic factors. Intrinsic skin aging is determined by genetic factors, hormonal status and metabolic reactions such as oxidative stress. One of the most important extrinsic skin aging factors is induced by UV radiation by sun exposure, referred to as photoaging. Smoking cigarettes and environmental pollution are also essential factors in premature skin aging and wrinkle formation.

# Anti-Wrinkle Mechanism



# Mechanism of Collagen Synthesis



# Reported Functions


## *Salvia Officinalis (Sage) Leaf Extract*

- **INCI Name:** Salvia Officinalis (Sage) Leaf Extract
- **INCI Monograph ID:** 9045
- **VCRP Reported Name:** Salvia Officinalis (Sage) Leaf Extract
- **VCRP Frequency of Use as of 02/2018 :** 292
- **CAS No:** 84082-79-1 (generic)
- **EINECS (I) / ELINCS (L):** 282-025-9 (I)
- **Definition:** Salvia Officinalis (Sage) Leaf Extract is the extract of the leaves of *Salvia officinalis*.
- **SAFETY/REGULATORY INFORMATION**
- **Information Source(s):** [21CFR182.20](#), [21CFR582.20](#), JCIC, JCLS, JSQI, TSCA, UNII: 065C5D077J
- **Chemical Class(es):** [Botanical Products and Botanical Derivatives](#)
- **Reported Functions:** [Oral Care Agents](#); [Skin-Conditioning Agents - Miscellaneous](#)
- **Reported Product Categories:** [Aftershave Lotions](#); [Bath Capsules](#); [Bath Oils, Tablets, and Salts](#); [Bath Preparations, Misc.](#); [Bath Soaps and Detergents](#); [Body and Hand Preparations \(Excluding Shaving Preparations\)](#); [Bubble Baths](#); [Cleansing Products \(Cold Creams, Cleansing Lotions, Liquids and Pads\)](#); [Dentifrices \(Aerosol, Liquid, Pastes and Powders\)](#); [Deodorants \(Underarm\)](#); [Eye Lotions](#); [Eye Makeup Removers](#); [Face and Neck Preparations \(Excluding Shaving Preparations\)](#); [Hair Conditioners](#); [Hair Preparations \(Non-coloring\), Misc.](#); [Hair Rinses \(Coloring\)](#); [Hair Shampoos \(Coloring\)](#); [Hair Sprays \(Aerosol Fixatives\)](#); [Indoor Tanning Preparations](#); [Makeup Bases](#); [Moisturizing Preparations](#); [Night Skin Care Preparations](#); [Paste Masks \(Mud Packs\)](#); [Personal Cleanliness Products, Misc.](#); [Preshave Lotions \(All types\)](#); [Shampoos \(Non-coloring\)](#); [Shaving Cream \(Aerosol, Brushless and Lather\)](#); [Shaving Preparations, Misc.](#); [Skin Care Preparations, Misc.](#); [Skin Fresheners](#); [Suntan Gels, Creams, and Liquids](#); [Tonics, Dressings, and Other Hair Grooming Aids](#)
- **Ingredient Source(s):** Plant
- **Technical Name(s):**
  - Sage Extract
  - Sage Leaf Extract
  - Salvia Extract
  - Salvia Triloba Extract
- **Trade Name(s):** [Click here to view full list of Trade Names](#)
- **Trade Name Mixture(s):** [Click here to view full list of Trade Name Mixtures](#)

Source: Personal Care Products Council

# Product Information

- **Product Name :** Salvation
- **INCI name :** Salvia Officinalis Leaf 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.



Tel  
+44 (0)131 629 9584



E-mail  
[marketing@tsocalledonia.co.uk](mailto:marketing@tsocalledonia.co.uk)



Address  
Unit 8F Edgefield Rd Ind Est, Loanhead,  
EH20 9TB