

Premium Calm

Plant part: Leaf

Scientific name: *Alchemilla vulgaris*

INCI name: Alchemilla Vulgaris Extract

IECIC 2015 name: ALCHEMILLA VULGARIS EXTRACT



Premium Calm

Product Name: Premium Calm

Plant Name: Lady's Mantle

Alchemilla is a genus of herbaceous perennial plants in the family Rosaceae, with the common name "lady's mantle. It has soft gray-green foliage is semi-round with scalloped-shaped leaves. This Turkey and Carpathian Mountain native is a low-growing ground cover has an interesting background.

The plant's common name is said to have likely come from an ancient legend of it being used to adorn the Virgin Mary, as her cloak was thought to resemble its scalloped leaves.

Harvesting Lady's Mantle

Our Lady's Mantle is grown and harvested from an established organic English farm.

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



LADY'S
MANTLE

Once a popular medicinal herb, the root and leaves of lady's mantle plant were both harvested in midsummer and traditionally used for poultices for bruises and wound healing.

Scientific research has proven *A.vulgaris'* pharmacological benefits to its polyphenols including ellagic acid, ellagitannin, and flavonoid glucuronides.

Other findings demonstrate the antioxidant actions and inhibition of intercellular matrix degrading proteases, both of which are critical for antiaging cosmetic products.

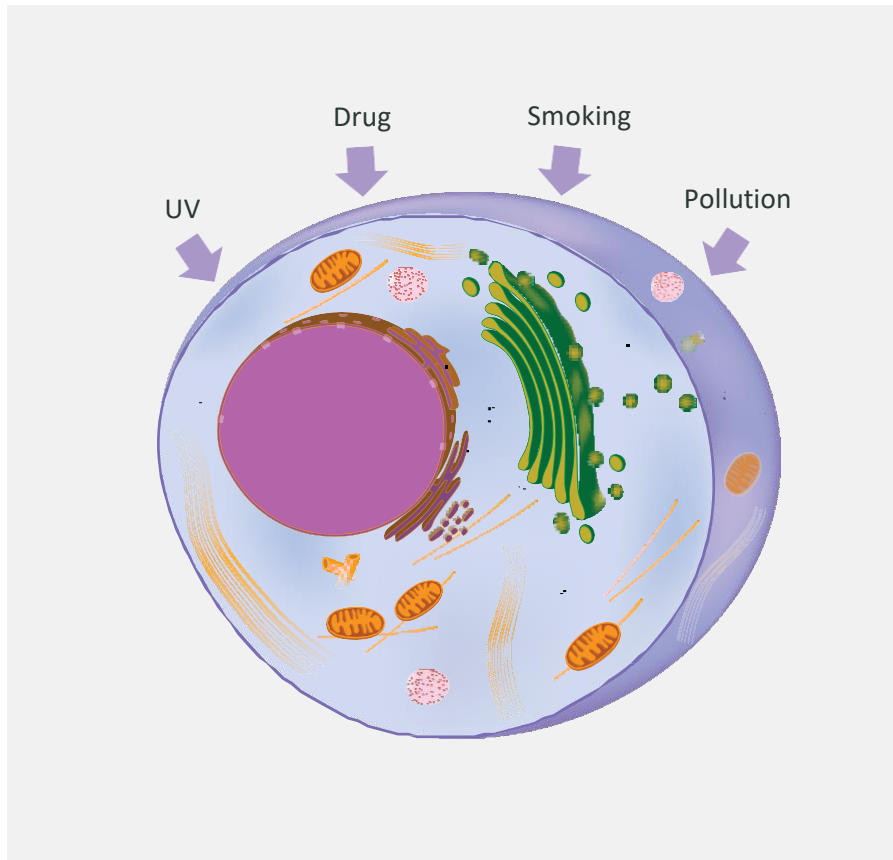
Additionally, enhancing epithelial cell growth and aiding lesion recovery were demonstrated as a wound healing benefit of its extract.

[1] Phenolic constituents from *Alchemilla vulgaris* and *Alchemilla mollis* (Buser) Rothm, at different dates of harvest, Duckstein *et al.*, Z Naturforsch C, 2012, 67(11-12), p.529-540

[2] Flavonoids extracted from *Ribes nigrum* L. and *Alchemilla vulgaris* L.: 1. in vitro inhibitory activities on elastase, trypsin and chymotrypsin. 2. Angioprotective activities compared *in vivo*, Jonadet *et al.*, J Pharmacol, 1986, 17(1), p.21-27

[3] Effects of *Alchemilla vulgaris* and glycerin on epithelial and myofibroblast cell growth and cutaneous lesion healing in rats., Shrivastava *et al*, Phytother Res, 2007, 21(4), p.369-373

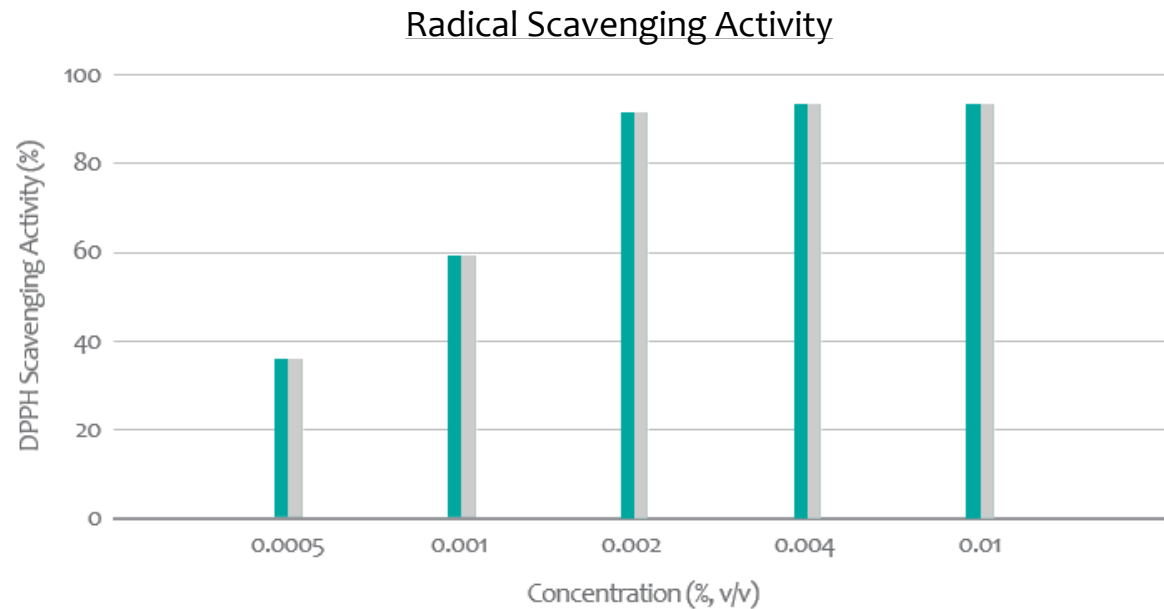
Antioxidants



Why are they important?

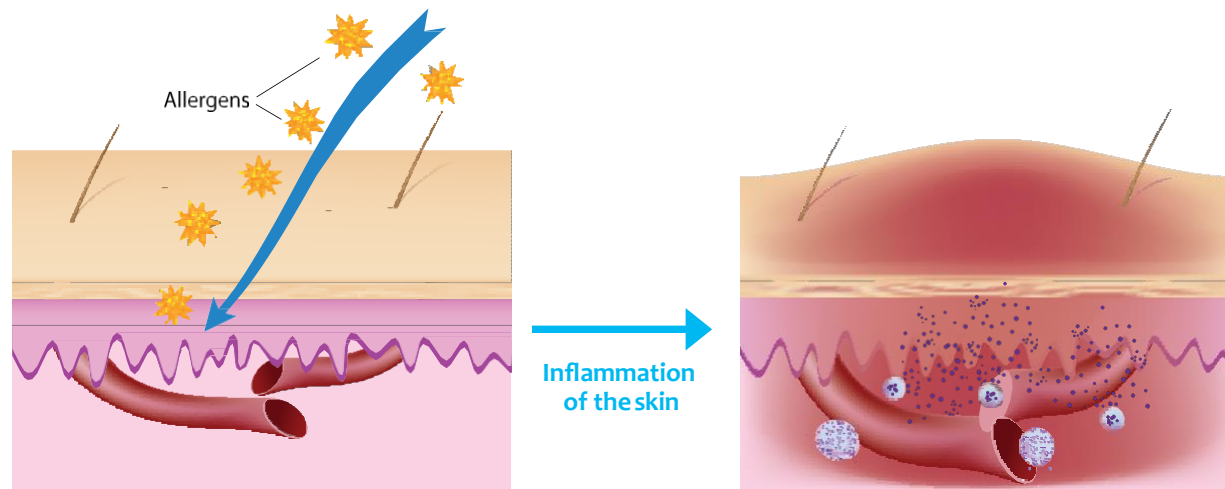
Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS). Antioxidants Alchemilla Vulgaris Extract can inhibit the generation of ROS and in turn inhibit cellular damage.

Antioxidant Effects of Premium Calm (*in vitro*)



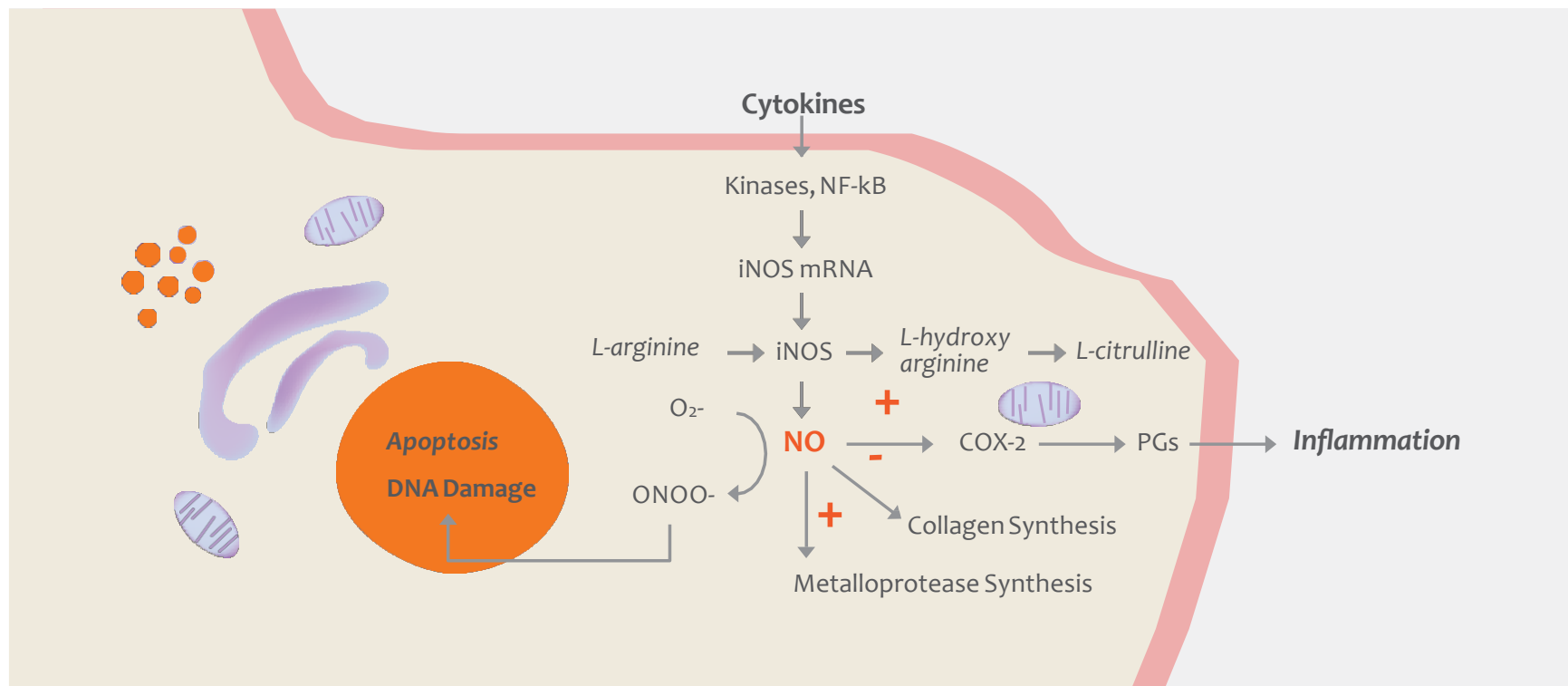
Antioxidants Premium Calm can inhibit the generation of ROS and in turn inhibit cellular damage. Good antioxidant activity is critical for anti-ageing agents in skin care products.

What is Inflammation?

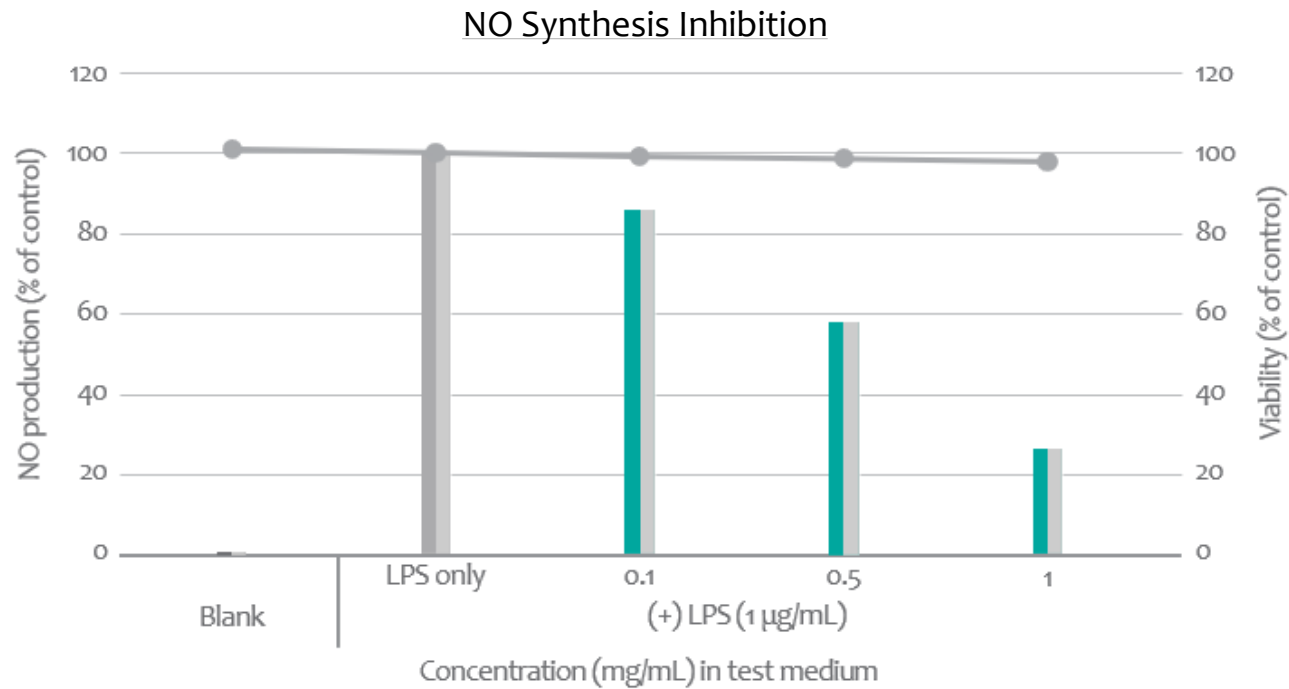


Inflammation is part of the complex biological responses to wide range of harmful stimuli including injury, tissue necrosis, infection, and irritants. The purpose of inflammation is to destroy (or contain) the damaging agent, initiate repair processes and return the damaged tissue to useful function. 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

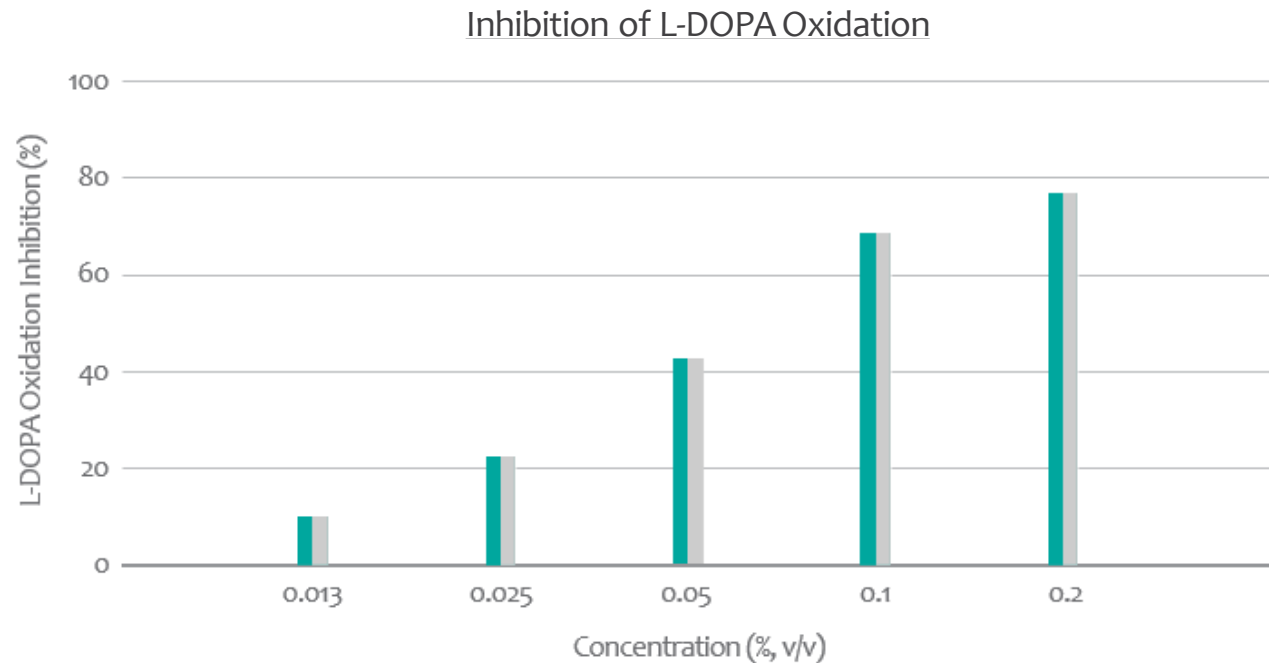


Anti-Inflammatory Effects of Premium Calm (*in vitro*)



Nitric oxide (NO) synthesis was reduced in macrophages treated with 1 mg/mL of Premium Calm.

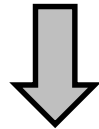
Skin Brightening Effects of Premium Calm (*in vitro*)



Results show that there was a significant increase in the inhibition of L-DOPA oxidation, in a concentration-dependent manner.

In vitro Antimicrobial Test

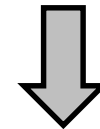
Antibacterial Activity



Test Microbes:

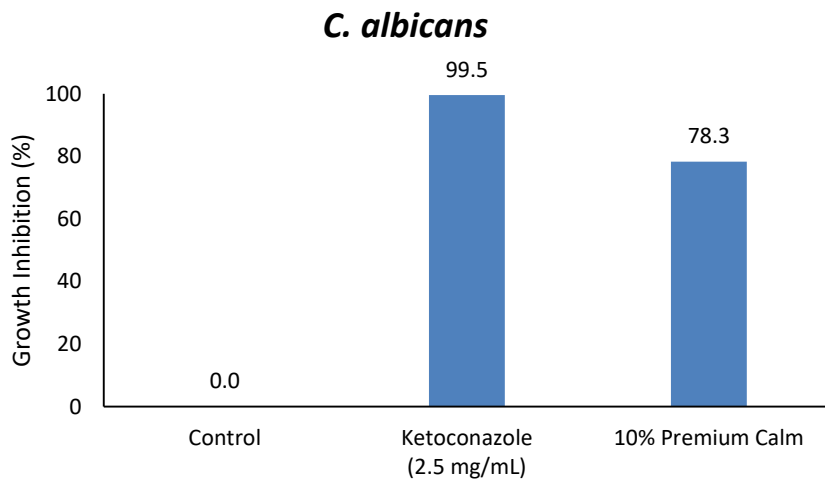
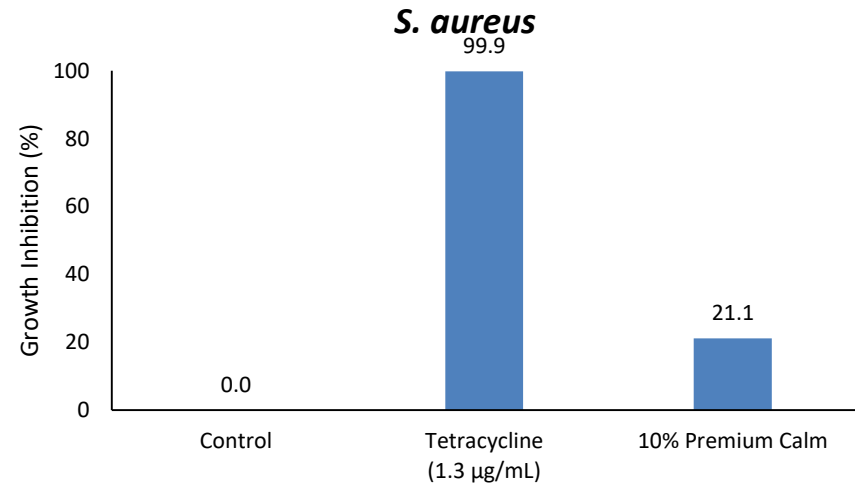
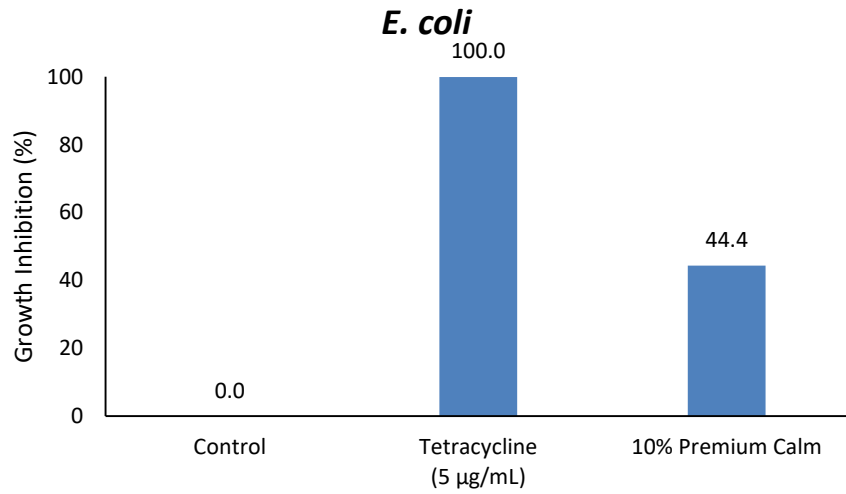
E. coli
S. aureus

Antifungal Activity



C. albicans

Antimicrobial Effects of Premium Calm (*in vitro*)



Comment on graphs

Reported functions

Ingredient : ALCHEMILLA VULGARIS EXTRACT 

INCI Name	ALCHEMILLA VULGARIS EXTRACT
Description	Alchemilla Vulgaris Extract is the extract of the lady's mantle, Alchemilla vulgaris L., Rosaceae
INN Name	
Ph. Eur. Name	
CAS #	84695-94-3
EC #	283-614-3
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	<ul style="list-style-type: none"> • ASTRINGENT • SKIN CONDITIONING
SCCS opinions	
Identified INGREDIENTS or substances e.g.	

Source: European Commission: [http://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=84594]

Product Information

Product Name : Premium Calm


INCI name : Alchemilla Vulgaris 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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