

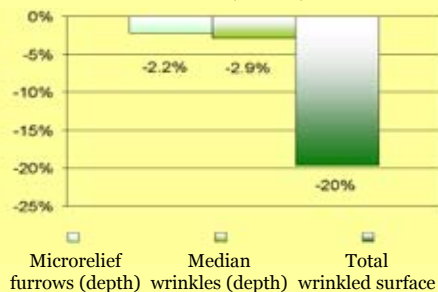


# Sericoside Phytosome®

## Anti-wrinkles

### Proven efficacy on humans

Reduction of wrinkles depth and total wrinkles surface (chart 1)



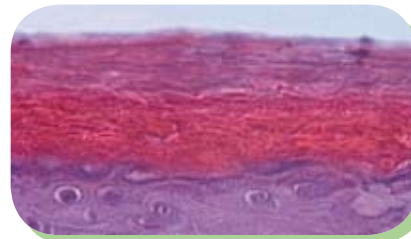
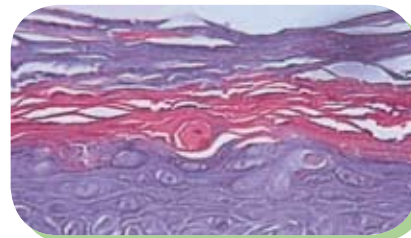
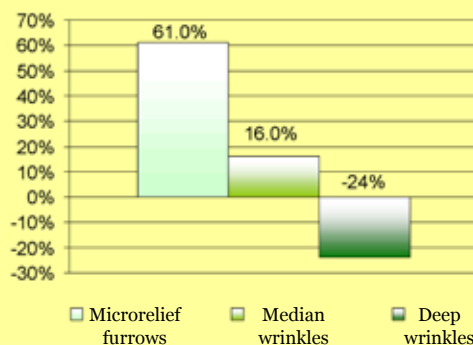
Study was carried out on 10 female Caucasian subjects, aged between 40 and 55 years, with wrinkles called crow's feet, which are radiating from the outer corner of the eye.

Sericoside Phytosome®<sup>0.5%</sup> emulsion (see formulation section) and corresponding control formulation were applied twice-daily for 42 days on all crow's feet, reproducing normal conditions of use. The product showed to be efficacious in over 70% of the tested female subjects, accomplishing a reduction in wrinkles depth and total wrinkled surface (chart 1).

Compared to the blank, the product Sericoside Phytosome® 0.5% Emulsion permitted to restructure significantly the microrelief furrows (+61%,  $p=0.035$ ) and tended to shift the skin wrinkles class distribution from deep to median and superficial (chart 2).

The significance of cutaneous relief results were statistically evaluated versus the blank with a paired t-test.

Variation of wrinkles class distribution (chart 2)

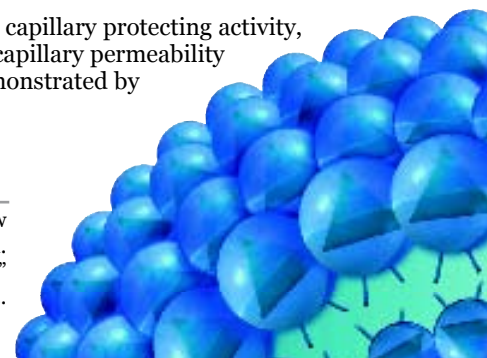


This is an example of skin restructuring effect, obtained in histological cross-section. Deep skin irregularities become smoother (photographs obtained during skin affinity test<sup>5</sup> on human reconstructed epidermis before and 24 hours after applying the product Sericoside Phytosome® 0.5% Emulsion).

### Mechanism of action

Many trials have been performed and Sericoside has shown to have skin restructuring, capillary protecting activity, wound healing and anti-oedema properties<sup>2</sup>. This is due to a remarkable reduction of capillary permeability exerted by the active ingredient. Significant anti-inflammatory qualities have been demonstrated by Sericoside<sup>3</sup> and the Phytosome® form as well.

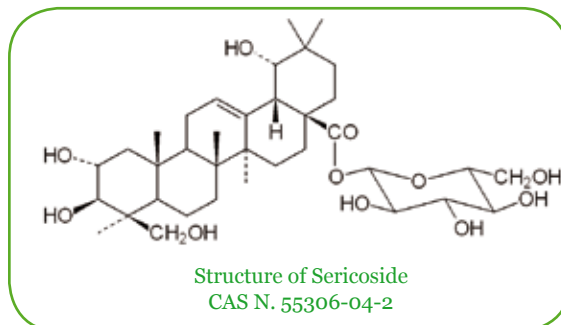
1. European Patent: EP 0 283 713 - 2. Bombardelli E., Crippa E., Pifferi G.: "Sericoside, a new glycoside in functional cosmetics" - Preprints of the 14th I.F.S.C.C. Congress, Barcellona, 1986, Vol. II - 3. Bombardelli E., Bonati A., Gabetta B., Mustich G.: "Triterpenoids of Terminalia Sericea" - Phytochemistry, 1974 Vol. 13, pag 2559-2562 - 4. Internal Report: Study report N° 9/2002 - 5. Internal Report: Study report N° 9/2002



## Safety Data

No intolerance reaction (irritation and/or allergy) due to the product was shown. A 3% gel of Sericoside Phytosome® showed not to be sensitising on human skin (Urbino University, 1991) and not to be cytotoxic<sup>4</sup>.

## Characteristics



Sericoside Phytosome®	Available documentation
<ul style="list-style-type: none"> <li>· HPLC content of Sericoside ≥ 25%</li> <li>· Form: light brown amorphous powder</li> <li>· Stability: retesting date at 24 months</li> <li>· Levels of use: 0.5%</li> <li>· Odor: faint, characteristic</li> <li>· pH: not applicable (insoluble in water)</li> <li>· Water content: &lt; 5%</li> <li>· Solubility*: Ethoxydiglycol, Propylene glycol, Butylene glycol, Triticum vulgare (Wheat Germ Oil), Caprylic/Capric Triglycerides, PEG-7 Glyceryl Cocoate, Mineral Oil (and)</li> </ul>	<ul style="list-style-type: none"> <li>· Lanolin Alcohol, Helianthus annuus (and) Lecithin, Phospholipids (and) Caprylic/Capric Triglyceride (and) Alcohol, Phospholipids (and) alcohol (and) Carthamus tinctorius (and) Glyceryl stearate, Phospholipids (and) Glyceryl stearate (and) Linoleic acid ethylester (and) Glycine soya.</li> <li>· Aqua (water): dispersible</li> </ul>
	<ul style="list-style-type: none"> <li>· Botanical Certificate</li> <li>· Method of analysis</li> <li>· References Standard</li> <li>· Declaration GMO free</li> <li>· Safety Data Sheet</li> <li>· Published literature</li> <li>· Confidential documentation</li> </ul>

\* 50 mg Sericoside Phytosome® in 10 g of Solvent at 40°-50°C

## Formulation examples

O/W emulsions with Sericoside Phytosome®	Formulation advise																																																								
<table border="1"> <tr> <td>SERICOSIDE PHYTOSOME®</td> <td>0.50 %</td> <td>Methyl Chloroisothiazinone (and)</td> <td></td> </tr> <tr> <td>Glycyrrhethinic acid Phytosome®</td> <td>1.00 %</td> <td>Methy Isothiazolinone</td> <td>0.05 %</td> </tr> <tr> <td>Ruscogenins C</td> <td>0.30 %</td> <td>Disodium edetate</td> <td>0.10 %</td> </tr> <tr> <td>Cetearyl alcohol and cetearyl polyglucose</td> <td>7.00 %</td> <td>Fragrance</td> <td>0.02 %</td> </tr> <tr> <td>Oleyl Erucate</td> <td>3.00 %</td> <td>Purified water</td> <td>as needed to 100</td> </tr> <tr> <td>Isostearyl Isostearate</td> <td>3.00 %</td> <td></td> <td></td> </tr> <tr> <td>Wheat germ oil</td> <td>2.50 %</td> <td></td> <td></td> </tr> <tr> <td>Cera alba</td> <td>2.50 %</td> <td></td> <td></td> </tr> <tr> <td>Polisorbate 80</td> <td>1.50 %</td> <td></td> <td></td> </tr> <tr> <td>Dimethicone</td> <td>1.00 %</td> <td></td> <td></td> </tr> <tr> <td>Tocopherol</td> <td>0.20 %</td> <td></td> <td></td> </tr> <tr> <td>Ascorbyl palmitate</td> <td>0.10 %</td> <td></td> <td></td> </tr> <tr> <td>Glycerin</td> <td>5.00 %</td> <td></td> <td></td> </tr> <tr> <td>Imidazolidinyl urea</td> <td>0.30 %</td> <td></td> <td></td> </tr> </table>	SERICOSIDE PHYTOSOME®	0.50 %	Methyl Chloroisothiazinone (and)		Glycyrrhethinic acid Phytosome®	1.00 %	Methy Isothiazolinone	0.05 %	Ruscogenins C	0.30 %	Disodium edetate	0.10 %	Cetearyl alcohol and cetearyl polyglucose	7.00 %	Fragrance	0.02 %	Oleyl Erucate	3.00 %	Purified water	as needed to 100	Isostearyl Isostearate	3.00 %			Wheat germ oil	2.50 %			Cera alba	2.50 %			Polisorbate 80	1.50 %			Dimethicone	1.00 %			Tocopherol	0.20 %			Ascorbyl palmitate	0.10 %			Glycerin	5.00 %			Imidazolidinyl urea	0.30 %			<p>The physico-chemical characteristics of Sericoside Phytosome® and its ready dispersibility in water and oil virtually pose no limitations to the preparations of cosmetic formulations. Sericoside Phytosome®, dispersed in aqueous phase by a homomixer or a turboemulsifier, is suitable for incorporation into monophasic and biphasic systems at a temperature lower than 40°C in order to avoid thermal stress that might damage the phospholipidic chain.</p>
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<p><b>Also suitable for</b></p> <ul style="list-style-type: none"> <li>· Sun care products (gels and creams)</li> <li>· After sun products (gels, creams and lotions)</li> <li>· Soothing and lenitive products (emulsions, masks)</li> </ul>																																																									

## Did you know...

Sericoside Phytosome® is a patent complex between Sericoside and soy phospholipids. Terminalia sericea, from which Sericoside was isolated and extracted for the first time by Indena, has been traditionally used in Africa and Asia for the treatment of severe skin diseases. The adjective sericea, in ancient Latin, means "silky, smooth as silk".

TRADE NAME	INCI (CTFA)	INCI (E.U.)	EINECS N.	CAS N.	INDENA CODE
Sericoside Phytosome®	Phospholipids (and) Terminalia sericea Bark/ Root Extract	Phospholipids	306-547-4	97281-47-5	9060100
		Terminalia sericea Extract	290-360-7	90131-49-0	
Sericoside	Terminalia sericea Bark/ Root Extract	Terminalia sericea Extract	290-360-7	90131-49-0	3058500