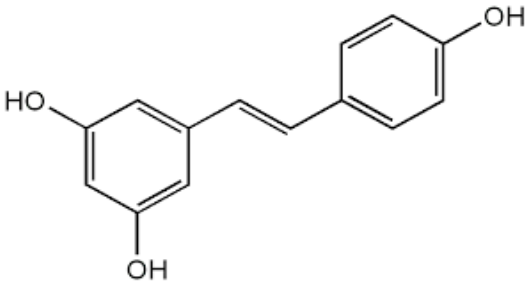
RESVERATROL ANTIOXIDANT PHYTO LIPOSOMES

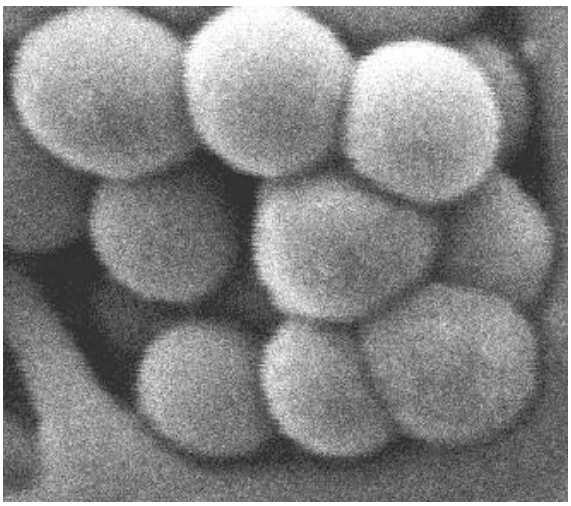
Code: LIPH-110



Resveratrol is a naturally occurring polyphenolic phytoalexin amply present in the skin and seeds of grapes. Other plant sources include peanuts, red wine and berries.
Resveratrol is an effective antioxidant with strong anti–inflammatory and antiproli-ferative activity. It also shows inhibitory effects on diverse cellular processes associated with tumour initiation, pro-motion and progression.

Figure 1: Resveratrol molecular formula.

Topical application of resveratrol to SKH-1 hairless mice resulted in significant inhibition of UVB-induced skin edema. Resveratrol pre–treatment caused a decrease in UVB-induced generation of hydrogen peroxide and infiltration of leukocytes. In addition, topical application of resveratrol substantially reduced UVB-induced lipid peroxidation, cyclooxygenase and ornithine decarboxylase activities, and protein expression of the latter enzyme. In normal human epidermal keratinocytes, resveratrol blocks UVB-mediated activation of NF-κB in a dose- and time-dependent manner.
The topical application of resveratrol delays skin aging, provides greater aesthetic homogeneity to the skin and helps to reduce spots and wrinkles.



Liposomes are spherical microvesicles composed of parallel bilayers of phospholipids. Its size is of the order of nanometers (between 110-500 nm) in this case.
The properties of liposomes allow their potential application in various fields of medicine, the cosmetic industry, food, etc.
The interactions of liposomes with the skin are of particular importance in dermatology, especially as vehicles for various compounds for topical use and for their direct effects on the skin.
They allow encapsulating and transporting hydrophilic substances inside and lipophilic substances in their membrane.

Figure 2: Electron Microscopy of Liposomes.

The encapsulation of Resveratrol in LIPOSOMES offers greater bioavailability, effectiveness and protects it from degradation and oxidation.
Liposomes penetrate deep into the skin by several mechanisms, releasing the resveratrol and improving its effectiveness.
As a result, lower doses of liposome-encapsulated Resveratrol help achieve the same effects as higher doses of the free.

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INCI name: WATER (AQUA) (AND) HYDROGENATED PHOSPHATIDYLCOLINE (AND) CAPRYLIC/CAPRIC TRIGLYCERIDE (AND) PROPANEDIOL (AND) RESVERATROL (AND) CAPRYLYL GLYCOL (AND) TOCOPHEROL.

DESCRIPTION: Hydrogenated phosphatidylcholine liposomes encapsulating Resveratrol and Vitamin E as an antioxidant and membrane stabilizer.

COMPOSITION (INCI NAME)	% (weight)	CAS #
Water (Aqua)	83,400	7732-18-5
Hydrogenated Phosphatidylcholine	5,000	97281-48-6
Caprylic/Capric Triglyceride	5,000	73398-61-5/ 65381-09-1
Resveratrol	1,000	501-36-0
Tocopherol	0,100	59-02-9
Conservantes:		
Propanediol	5,000	504-63-2 / 26264-14-2
Caprylyl Glycol	0,500	1117-86-8

Particle size:	110 –500 nm (DLS).
Manufacturing method:	Microfluidization.
Net charge of the liposome:	Negative.
Type of liposome:	Oligo-unilamellar.
Color:	White to light yellow.
Appearance:	Opalescent liquid. Fluid to slightly viscous.
Odor:	Mild, pleasant.
pH:	4,00 – 6,00 (25ºC) (USP XXVII).
Density:	0,980 – 1,050 (pycnometer) (20ºC) (USP XXVII).
Resveratrol Assessment:	1% +- 0,1% (Method: HPLC-UV).
Dry residue:	15,00 gr % minimum (0,5 gr. 1 hour 110° C).
Microbiological control:	Mesophilic bacteria: less than 100 CFU/gr. Moulds & yeast: less than 20 CFU/gr. No pathogens.

Keep refrigerated (5-15°C). Do not freeze. Protect from light. Shake before use.

EXTERNAL COSMETIC USE