CURCUMA (TURMERIC) ANTIOXIDANT PHYTO LIPOSOMES

Code: LIPH-131

Curcuma longa L. is a rhizomatous perennial herb, which grows to a height of three to five feet and is widely cultivated in Asia, India, China, and other countries with tropical climate.
Turmeric, commonly known as Curcuma Longa, has been known as a complementary and herbal medicine for about 4000 years in the Ayurvedic culture of India.
Traditionally, turmeric has been used in many ways, for example, inhaling the vapors of burnt turmeric to reduce congestion, using turmeric juice to heal wounds, and applying turmeric paste for various skin conditions. It is used as a spice and to color and preserve food.

Since it is a powerful antioxidant and has germicidal properties, turmeric has been widely used in cosmetics. A long list of skincare benefits is associated with the ingredient, including treating acne, blemishes, dark spots, and hyperpigmentation, and addressing skin conditions such as eczema and psoriasis. Additionally, it helps heal and prevent dry skin and slow down the skin aging process.

The main antioxidant component of turmeric (Curcumalonga) is curcumin, a yellow pigment that is also present in curry. Other antioxidant components of turmeric include demethoxycurcumin and bis-demethoxycurcumin.

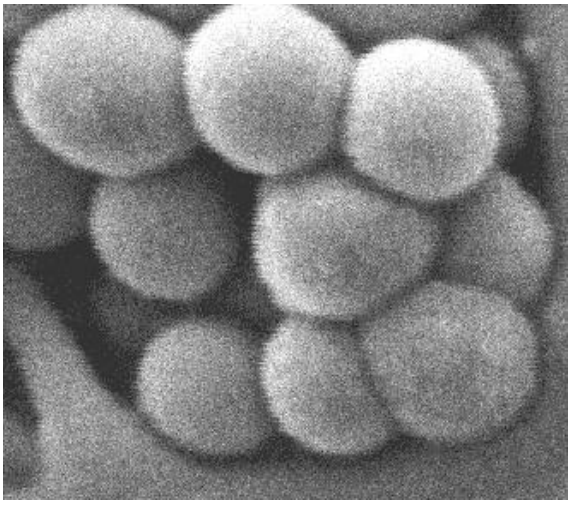

Figure 2: Electron Microscopy of Liposomes.

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.

Encapsulation of CURCUMA extract in LIPOSOMES offers greater bioavailability, effectiveness and protects it from degradation and oxidation.
Liposomes penetrate deeply into the skin by several mechanisms, releasing the active components of the extract, improving its effectiveness.
As a result, lower doses of the active ingredient encapsulated in liposomes help achieve better effects than those in free form.

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INCI name: WATER (AQUA) (AND) CURCUMA LONGA ROOT EXTRACT (AND) HYDROGENATED PHOSPHATIDYLCOLINE (AND) PROPANEDIOL (AND) CAPRYLIC/CAPRIC TRIGLYCERIDE (AND) CAPRYLYL GLYCOL (AND) TOCOPHEROL.

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

COMPOSITION (INCI NAME)	% (weight)	CAS #
Water (Aqua)	66,400	7732-18-5
Curcuma Longa Root Extract	20,00	84775-52-0
Hydrogenated Phosphatidylcholine	5,000	97281-48-6
Caprylic/Capric Triglyceride	3,000	73398-61-5/ 65381-09-1
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 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).
Dry residue:	9,00 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