NanoVec™

SPECIFICATIONS - TDS

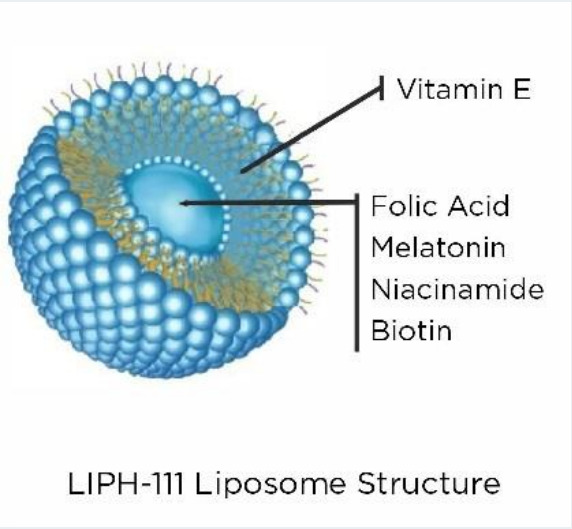
CELULAR PROTECTOR AND REGENERATOR LIPOSOME

with Folic Acid, Melatonin, Biotin, Niacinamide and Vitamin E

CODE: LIPH-111 Date of last amendment: 09.09.2023

INCI name: WATER (AQUA) (AND) CAPRYLIC/CAPRIC TRIGLYCERIDE (AND) HYDROGENATED PHOSPHATIDYLCOLINE (AND) PROPANEDIOL (AND) FOLIC ACID (AND) MELATONIN (AND) BIOTIN (AND) NIACINAMIDE (AND) TOCOPHERYL ACETATE (AND) CAPRYLYL GLYCOL

DESCRIPTION: Hydrogenated phosphatidylcholine liposomes encapsulating Folic Acid, Melatonin, Biotin, Niacinamide and Vitamin E as an antioxidant and membrane stabilizer.



LIPH-111 Liposome Structure

PROPERTIES: During years of trials and researchs tests it was proven that many well-known vitamins can be used successfully in cosmetology. Folic acid plays an important role in the vital process of mitotically active tissues and its deficiency increases the level of DNA damage. Folic acid appears to have skin regenerative properties and may modulate DNA repair in UV-damaged skin.
Melatonin is a powerful antioxidant that works through several mechanisms to reduce oxidative stress. It has proven to be very effective in reducing the molecular damage that occurs under conditions of high stress, thus protecting the cellular matrix and giving the skin tone and elasticity.
Niacinamide (Vitamin B3) has been appearing in many topical skin care products lately. It is marketed as an anti-aging active, to reduce redness, mitigate acne and even reduce the appearance of hyperpigmentation.
Niacinamide is an essential water-soluble vitamin. It is a precursor to the cofactors NAD and NADP that play a key role in biochemical reactions, including cellular energy production, glucose metabolism, and lipid synthesis. The level of these coenzymes decreases with age and topical application of niacinamide helps mitigate this loss.
Biotin (or Vitamin H) plays a fundamental role in skin health. It helps prevent irritation, dryness and cracking of the skin, keeping it healthy, as well as preventing the appearance of spots and wrinkles.
Vitamin E is an antioxidant and protects the liposome membrane while helping to prevent oxidation of the other vitamins.
The encapsulation of these vitamins in liposomes enhances their bioavailability and effectiveness thanks to their penetration power.
On the other hand, it protects them from oxidation, prolonging their useful life.
The liposomes themselves are highly hydrating and provide essential lipids to keep the lipid mantle in good condition.

COMPOSITION (INCI NAME)	% (weight)	CAS #
Water (Aqua)	75,000	7732-18-5
Caprylic/Capric Triglyceride	10,000	73398-61-5/ 65381-09-1
Hydrogenated Phosphatidylcholine	5,000	97281-48-6
Folic Acid	1,000	59-30-3
Melatonin	1,000	73-31-4
Biotin	1,000	58-85-5
Niacinamide	1,000	98-92-0
Tocopheryl Acetate	0,500	7695-91-2/ 58-95-7
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:	Yellow.
Appearance:	Opalescent liquid to slightly viscous fluid. Note: Over time in the fridge it can become creamy.
Odor:	Characteristic.
pH:	5,00 – 7,00 (25ºC) (USP XXVII).
Density:	0,980 – 1,050 (pycnometer) (20ºC) (USP XXVII).
Dry residue:	20,00 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.
Folic Acid Assay:	1% +-0,10% (HPLC determination)
Melatonin Assay:	1% +-0,10% (HPLC determination)
Biotin Assay:	1% +-0,10% (HPLC determination)
Niacinamide Assay:	1% +-0,10% (HPLC determination)

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

EXTERNAL COSMETIC USE