

# Nanovec™



## **SPECIFICATIONS TDS**

VITAMIN E LIPOSOMES (TOCOPHEROL)



**COSMOS APPROVED**

# VITAMIN E LIPOSOMES (TOCOPHEROL)

CODE: ECOLIP-1

Last Revision: 11.07.2023

**INCI name:** WATER (AQUA) (AND) PHOSPHOLIPIDS (AND) ALCOHOL (AND) TOCOPHEROL (AND) SODIUM BENZOATE (AND) POTASSIUM PHOSPHATE.

## DESCRIPTION

ECOLIP-1 consists of liposomes (natural delivery systems) made from vegetable phospholipids, which encapsulate and transport Vitamin E (Tocopherol) to the target cells.

This ECOCERT certified Vitamin E derives from non-GMO natural soybean oil.

Vitamin E is a powerful and well-proven antioxidant that protects lipids, cellular membranes and pituitary hormones, suprarenal glands and gonads.

For years, Vitamin E has been incorporated to cosmetic formulations in order to prevent the products' oxidation and rancidity of unsaturated lipids. The latter produce color changes and unpleasant odors.

Lipo-peroxides (compounds form immediately by lipids oxidation) generated in cosmetics by lack of antioxidants, radiation or inadequate storage, might cause skin irritation. Low concentrations of 0.1 to 1% of Vitamin E in cosmetic products decrease lipid oxidation and prevent undesired chemical and physical changes.

State-of-the-art formulations have recently incorporated the concept of "anti-free radicals" of Vitamin E associated to the delay of skin aging. It has been proven that Vitamin E can block the formation of nitrosamines and nitrosamides, which are known to be carcinogenic.

All these properties have positioned Vitamin E in the center of attention for new cosmetic formulations.



## BENEFITS

Protects the skin against free radicals

Increases skin hydration

Prevents the appearance of wrinkles

Presents anti-inflammatory and healing properties

Defends the cell membranes

Helps in the treatment of psoriasis and acne

COMPOSITION (INCI NAME)		CAS #	% (weight)
Water (Aqua)		7732-18-5	82.650
Phospholipids		8030-76-0	12.000
Alcohol		64-17-5	3.000
Tocopherol		59-02-9	1.000
Sodium Benzoate		532-32-1	1.000
Potassium Phosphate		7778-77-0	0.350
Particle size:	100 – 300 nm (Dynamic Laser Scattering – DLS)		
Manufacturing method:	Microfluidization		
Net charge of the liposome:	Negative		
Type of liposome:	Oligo-unilamellar		
Color:	Amber		
Appearance:	Semi-translucent to opalescent liquid. Absence of foreign matter		
Odor:	Mild, slightly ethanolic		
pH:	4,75 – 6,00 (25°C) (USP XXVII)		
Density:	0,970 - 1,030 (pycnometer) (20°C) (USP XXVII)		
Dry residue:	12,0 gr % minimum (0.5 gr. 1 hour 110° C)		
Microbiological control:	Mesophilic aerobes: less than 100 CFU/gr. Moulds & yeast: less than 20 CFU/gr. No pathogens.		
Dosage:	1 - 10%		
Solubility:	Miscible with water		
Application:	ECOLIP-1 is recommended for regenerative care of mature skin and for prevention of damage to the skin likely to accelerate the aging process. It can be used in emulsified and aqueous skin care preparations, especially gel-type formulations.		
Storage:	Keep refrigerated (5 - 15° C), in well-closed containers, protected from light. Shake well before use. Under these conditions, the shelf life of Nanovec liposomes is 2 years.		
Packing size:	1 kg, 5 kg, 10 kg, 60 kg Sample size: 50 g		

## EXTERNAL COSMETIC USE

