

# nanovetor resveratrol



## Antioxidant Action

**Actives:** Trans-Resveratrol and Romã Oil

Nanovetor Resveratrol is a blend of active ingredients encapsulated in lipid particles with particle diameter larger than 200 nm. Encapsulation through the technology developed by Nanovetores allows the stabilization of sensitive components, therefore, complex of being formulated in their free form. Due to its natural characteristics and non-existent chemical aggression, it can be used daily, acting as a powerful antioxidant, preventing skin aging, protecting against the damages caused by UV rays and granting a serie of benefits.



### Features

**Aspect:** Milky liquid from white to cream.

**Usage Concentration:** 2 to 10%

**pH Stability:** 3,0 a 6,0

**Dispersibility:** Dispersion of water encapsulated actives

**Particle:** Lipid

**Release Trigger:** Enzyme



### Benefits

- Prevention of skin aging
- Whitening action
- Treatment of skin hyperchromias
- Blue-light protection



### Usage

Emulsions, serums, gels and gels for the treatment of hyperchromias of the skin. Vehicle Compatible anionic and nonionic.



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## Description

Trans-resveratrol possesses high antioxidant activity, which inhibits the action of free radicals and prevents skin aging <sup>(1,2)</sup>. Moreover, it acts on the protection against damage caused by ultraviolet radiation on the skin, also preventing the development of skin cancer <sup>(3)</sup>.

Pomegranate Oil is a source of punicic acid and ellagic acid, which give different properties to the blend. The regenerative, moisturizing, antioxidant and astringent actions of the oil assist in healing the skin, by stimulating collagen synthesis and proliferation of fibroblasts in the dermis, improving elasticity and providing strength and glow to the skin. Pomegranate oil also acts to prevent skin photoaging, combating fungi and bacteria as well as helping on the treatment of acne.

The active ingredient has high antioxidant potential, protects against damage caused by UV rays and helps in skin recovery. Its natural features and non-existent chemical aggression guarantee safety in its daily application, delivering the proposed benefits in the most effective way possible.

## Regulatory Information

INCI NAME	CAS NUMBER
AQUA	7732-18-5
DIPROPYLENE GLYCOL	110-98-5 /
PPG-15 STEARYL ETHER	25231-21-4
LINOLEIC ACID	60-33-3
OLEIC ACID	112-80-1
MYRISTIC ACID	544-63-8
CAPRYLIC/CAPRIC TRIGLYCERIDE	73398-61-5
POLYSORBATE 80	9005-65-6
PUNICA GRANATUM SEED OIL	84961-57-9
STEARETH-2	9005-00-9
STEARETH-21	9005-00-9
POLOXAMER 407	9003-11-6
PHENOXYETHANOL	122-99-6
CAPRYLYL GLYCOL	1117-86-8
RESVERATROL	501-36-0
TOCOPHERYL ACETATE	7695-91-2
SODIUM METABISULFITE	7681-57-4

## Physical-Chemical Information

PHYSICAL STATE	LIQUID
FORM	MILKY LIQUID
COLOR	WHITE TO CREAM
ODOR	CHARACTERISTIC
pH	4.5 TO 6.5
DISPERSIBILITY	DISPERSION OF ACTIVES ENCAPSULATED IN WATER
RELATIVE DENSITY	0.9 TO 1.1 g/ml
CHARACTERIZATION	BLEND

\*As it contains natural active ingredients, the product may change in color and odor.

\*\* Agitate before using.



### STORAGE:

KEEP IN TEMPERATURE BETWEEN 20°C - 25°C



### COMPATIBILITY:

GELS, GEL-CREAM AND EMULSIONS IN GENERAL.



### INCOMPATIBILITY:

ETHANOL AND OTHER ORGANIC SOLVENTS.

## References

1 - BAXTER, R.A. Anti-aging properties of resveratrol: review and report of a potente new antioxidante skin care formulation. Journal of Cosmetic Dermatology, 7, 2-7, 2007.

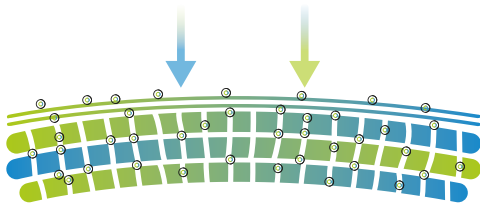
2 - LEMOS-SENNA, E.; NEMEN, D. Preparação e caracterização de suspensões coloidais de nanocarreadores lipídicos contendo resveratrol destinados à administração cutânea. Quim. Nova, 34(4), 408-413, 2011.

3 - MORENO, C.S. Estudo do Efeito Radioprotetor do Resveratrol. 2009. 93p. Dissertação (Mestrado em Tecnologia Nuclear). Instituto de Pesquisas Energéticas e Nucleares, Universidade de São Paulo. São Paulo, 2009.



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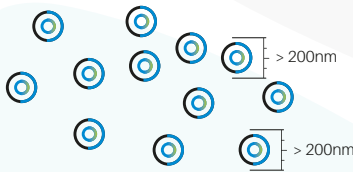
# Nanovetores Encapsulation Technology



**Multifunctional Lipid Particles** that promote hydration and extended effect.



**Active Ingredient Protection** against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



**Monodispersity**, that ensures control of the particle size, providing adequate permeation to its proposed action.



**Secure particles** larger than 200nm, biocompatible and biodegradable.



**Enzymatic Specific Release Trigger**, where enzymes present on the skin disintegrate particles, releasing the active ingredient specifically where it needs to act.

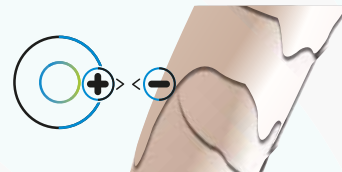


Active ingredient deposition when applied freely



Greater permeation of the active ingredient when encapsulated

**Greater Permeation** on the contact surface due to the small size of the capsule.



**Surface Charge Control** of the particle, promoting greater affinity with the contact surface.



**Water Base.** Active ingredients are manufactured without the use of organic solvents, ensuring safety for users and the environment.

## Use Encapsulated Active Ingredients and Ensure:

Stability Improvement

Increased compability in the formulation

Occlusion of odors

Increased skin permeation

Reduced dose

Use of sensitive active ingredients (without refrigeration)

Increased Solubility

Prolonged release

Increased effectiveness