



NANO  
VETORES  
GROUP

# NANOVETOR RESVERATROL ECO

SKIN  
CARE

**Active** Trans-resveratrol and  
**Ingredients:** pomegranate oil.

## Benefits

- Has high antioxidant potential.
- Protects against damage caused by UV rays.
- Helps in skin recovery.

## Usage

Emulsions in general, gels, cream gels and serums.



## DESCRIPTION

**Nano Resveratrol ECO** 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,

### Resveratrol

Resveratrol is a polyphenol with high antioxidant capacity present in a wide variety of vegetables, with higher occurrence in grapes, and can also be chemically synthesized. Resveratrol exists in cis and trans forms, with the trans form (**Figure 1**) being the most used, since its chemical structure is more stable<sup>1,2</sup>.

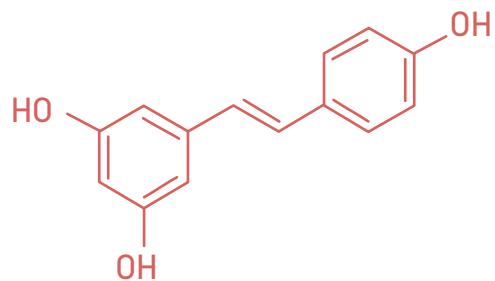
Due to its antioxidant capacity, trans-resveratrol inhibits the action of free radicals and protects against damage caused by ultraviolet radiation, preventing skin aging and the development of skin cancer. In addition, it has other properties such as: antifungal, anti-inflammatory, cardioprotective and for lightening spots<sup>1,3,4</sup>.

complex of being formulated in their free form. The active consists of Trans-Resveratrol and pomegranate oil, and due to its natural characteristics, can be used daily, preventing skin aging.

### Pomegranate oil

*Punica granatum L* (Pomegranate) is a plant native to Southwest Asia, specifically the Middle East. Pomegranate oil is extracted from its seeds, with powerful anti-inflammatory, antitumor and antioxidant properties<sup>5,6</sup>.

Moreover, pomegranate oil is a source of punicalic 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<sup>7,8</sup>.



**Figure 1:** Chemical structure of trans-resveratrol<sup>3</sup>.



# NANOVETOR RESVERATROL ECO

## Regulatory information

INCI Name	Cas Number	EINECS Number
AQUA	7732-18-5	231-791-2
PROPANEDIOL	504-63-2	207-997-3
BUTYROSPERMUM PARKII BUTTER	194043-92-0/91080-23-8	93-515-7
TOCOPHEROL	1406-66-2	200-201-5
HELIANTHUS ANNUUS SEED OIL	8001-21-6	232-273-9
CAPLYLIC/CAPRIC TRIGLYCERIDE	73398-61-5	277-452-2
PUNICA GRANATUM SEED OIL	84961-57-9	284-646-0
GLYCERYL CAPRYLATE	26402-26-6	247-668-1
DECYL GLUCOSIDE	54549-25-6	259-218-1
LAURYL GLUCOSIDE	110615-47-9	-
BENTONITE	1302-78-9	215-108-5
SODIUM LAUROYL LACTYLATE	13557-75-0	236-942-6
CETEARYL OLIVATE	-	-
SORBITAN OLIVATE	223706-40-9	-
RESVERATROL	501-36-0	610-504-8
GLYCERYL UNDECYLENATE	65684-27-7	-
ASCORBYL PALMITATE	137-66-6	205-305-4

## Physical-Chemical Information

Appearance	Milky liquid
Color	White to cream
Odor	Characteristic
pH	5.5 to 7.5
Dispersibility	Dispersion of encapsulated active ingredients in water
Relative density	0.9 to 1.1 g/mL



### Usage mode

Add to the formulation below 40°C under moderate agitation.

### Usage concentration

0.5 to 5.0%.

### Stability pH

3.0 to 7.5

### Storage

Keep in a well-ventilated place, away from light and heat.

### Compatibility

Emulsions in general, gels, cream gels and serums.

### Incompatibility

Ethanol and other organic solvents.



Our production process is based on Green Chemistry, being water-based and free of organic solvents, totally sustainable. We do not generate waste that could be harmful to users or the environment



We do not test on animals. All tests are conducted in trustworthy laboratories with human volunteers.



Essential oils, Vitamins, Acids and Natural Extracts are highly oxidative substances that degrade quickly and react constantly with the medium and other cosmetic compounds (light, oxygen, packaging, preservatives, fragrances, surfactants, etc.). By encapsulating it, we guarantee the stability of the active ingredients and protect them from potential reactions with the formulation or the environment.

## References

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# Nanovetores Encapsulation Technology



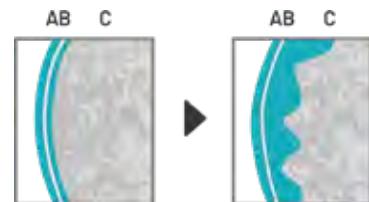
**Active Ingredient Protection** against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



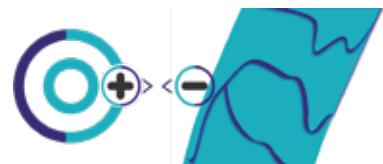
**Monodispersity**, that ensures control of the particle size, providing adequate permeation to its proposed action.



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



**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 compatibility in the formulation
- Occlusion of odors
- Increased skin permeation
- Reduced dose
- Use of sensitive active ingredients (without refrigeration)
- Increased Solubility
- Prolonged release
- Increased effectiveness



**Nanovetores Tecnologia S.A.**

Sapiens Parque - InovaLab. Av. Luiz Boiteux Piazza, 1302  
Cachoeira do Bom Jesus, Florianópolis - SC, 88056-000

**Tel.: +55 (48) 3205-6262 | Cel.: +55 (48) 99664-0099**  
**[contato@nanovetores.com.br](mailto: contato@nanovetores.com.br) | [nanovetores.com.br](http://nanovetores.com.br)**



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