

# NV SKIN HEALTHIER ECO

## BODY CARE

**Ativo:** Aloe Vera, Chamomile  
and Onion Extracts.

### Benefits

- Regenerates damaged skin;
- Anti-inflammatory;
- Help minimize the appearance of scars.

### Application

Emulsions, gels and serums.



## DESCRIPTION

**NV Skin Healthier ECO** is a blend of active ingredients encapsulated in biopolymeric nanoparticles with an enzymatic release trigger. It has a prolonged release, releasing the encapsulated active ingredients gradually over a period of 12 hours after application.

The encapsulation through Nanovetores Technology protects and stabilizes the active ingredients, increasing its permeation efficiency.

**NV Skin Healthier ECO** acts as regenerator of damaged skin, anti-inflammatory and helps to minimize the appearance of scars.

## ALOE VERA EXTRACT

Aloe vera has analgesic, antipruritic, anti-allergic, healing and anti-inflammatory properties. Some Aloe Vera substances are partially responsible for the anti-inflammatory and healing properties and several mechanisms have been proposed to explain their influence in these processes. Acemannan, polysaccharide found in large quantities in Aloe Vera, is able to stimulate macrophages to release interleukin-6, tumor necrosis factor- $\alpha$  and nitric oxide. It is also able to increase fibroblast proliferation and stimulate the secretion of keratinocyte growth factor-1 (KGF-1) and vascular endothelial growth factor (VEGF), in addition to collagen type 1. All these substances are directly related to the healing process, since they play important roles, such as tissue epithelialization, formation of blood vessels and connective tissue formation. Mannose-6-phosphate, polysaccharide present in Aloe Vera accelerates the healing process and decreases the inflammation due to its connection to receptors present in fibroblasts. Proteins and glycoproteins isolated from Aloe Vera also exhibited anti-

inflammatory activity in vitro by reducing significantly the COX-2 enzyme and lipoxygenase (FREITAS; RODRIGUES; GASPI, 2014). The sap of Aloe Vera is rich in aloin, allantoin and anthraquinones, which are excellent healing elements (RAMOS; PIMENTEL, 2011). In addition, Aloe Vera has antimicrobial, antioxidant, and moisturizing properties, as well as it strengthens the scalp. It helps in the prevention of photoaging, as anthraquinones glycosides present in Aloe Vera absorb UVB rays (PEREIRA; FRASSON, 2007).





## ONION EXTRACT

Onion extract has anti-inflammatory, antimicrobial and antioxidant properties. The flavonoids present in the onion extract, particularly quercetin and kaempferol, play an important role in reducing the formation of scar tissue through the inhibition of fibroblast activity and regulation of metalloproteinase-1 (collagenase), which reduces the fibroproliferative activity and extracellular matrix production (CHO et al., 2010; DRAELOS, 2008).

## CHAMOMILE EXTRACT

The chamomile extract has calming effect, helps on the skin cell regeneration, soothes inflammation, acts as an antioxidant, fighting the damage caused by free radicals and has emollient properties. It contains in its composition chamazulene, which has recognized anti-inflammatory activity, enhanced by the presence of matricine and  $\alpha$ -bisabolol,

wherein  $\alpha$ -bisabolol has antiphlogistic, antibacterial and antimycotic properties. It also has quercetin which gives antioxidant properties, as well as anti-inflammatory and antimicrobial ones (TABASSUM, HAMDANI, 2014; HARTMANN, 2010).



Regulatory Information

INCI Name	CAS Number	EINECS Number
AQUA	7732-18-5	231-791-2
CHAMOMILLA RECUTITA FLOWER EXTRACT	84082-60-0	282-006-5
ALOE BARBADENSIS LEAF JUICE	85507-69-3	287-390-8
ALLIUM CEPA BULB EXTRACT	8054-39-5	232-498-2
SODIUM BENZOATE	532-32-1	208-534-8
POTASSIUM SORBATE	24634-61-5	246-376-1
ALGIN	9005-38-3	-
CALCIUM CITRATE	813-94-5	212-391-7

Physical-Chemical Information

Aspect	Slightly viscous liquid
Color	Amber to brown
Odor	Characteristic
Dispersibility	Water dispersion of encapsulated active ingredients.
Relative Density	0.9 to 1.1 g/mL
pH	4.5 to 6.5

How to use

Agitate before use. Add to the formulation below 40°C.

Concentration of use

0.5 to 10.0%.

Stability pH

2.0 to 7.0.

Storage

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

Incompatibility

Anionic polymers, ethanol, and other organic solvents.

Compatibility

Emulsion in general, non-ionic gels, serums.





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.

## Bibliographic references

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# Nanovetores Encapsulation Technology



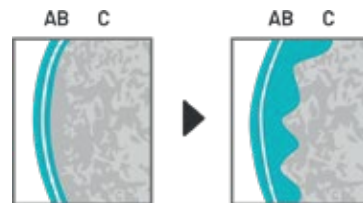
**Active Ingredient Protection** against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



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



**Secure particles** larger than 200nm, bio-compatible 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 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

# NANOVETORES

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## Givaudan

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