

# nano skin therapy

## CELLULAR REGENERATOR

**Actives:** Curcumin, Aloe Vera and Rosehip Oil.

Nano Skin Therapy is an actives blend encapsulated in lipid particles with a particle diameter greater than 200 nm. Encapsulation through Nanovetores Technology allows the stabilization of sensitive and complex components to be formulated. It also allows greater ease of application to the final product, due to its high dispersibility in water. The product has a powerful antioxidant, moisturizing and cellular regenerating effect, indicated for situations where the repair of the barrier function is necessary.



### Features

**Aspect:** Low viscous liquid of yellow to mustard color  
Usage **Concentration:** 1.0-10.0%  
**Stability pH:** 3.0 - 7.0  
**Dispersibility:** Water dispersion of encapsulated actives  
**Particle:** Lipid  
**Release Trigger:** Enzymatic



### Benefits

- Antioxidant
- Moisturizer
- Cellular regenerator



### Application

Gel, gel-cream, seum, emulsions in general.



**NANOVETORES®**  
**GROUP**

## Description

Nano Skin Therapy is ideal for the recovery of injured skin, this actives blend can be applied in post peeling products and as an aid to treat skin disorders such as psoriasis, eliminating erythematous-squamous lesions, which are characteristic of this problem.

Aloe vera has analgesic, antipruritic, antiallergic, healing and anti-inflammatory activity (SILVA et al., 2011). Topical application of Aloe vera promotes fibroblast activation, increasing collagen deposition, decreasing inflammation. They also promote increased synthesis of glycosaminoglycan (component of the extracellular matrix) involved in the initial stage of wound healing, improving the therapeutic conditions of psoriasis. In addition, it presents antifungal, antioxidant, moisturizing and strengthening activities of the scalp. It has photoaging prevention action, because the anthraquinonic glycosides present in Aloe vera absorb UVB radiation (PEREIRA, FRASSON, 2007). Curcumin, a species originating in Southeast Asia, besides its main use as a flavoring, has antioxidant, antimicrobial and dyes (curcumin) substances that give it the possibility of being used in cosmetics, textiles, medicines and food. Among the medicinal properties, recognized by asian pharmacopoeia, are: stimulating, carminative, expectorant, anti-inflammatory and assisting in the treatment of psoriasis. (FILHO et al., 2000). Curcumin has also been showing potent antioxidant action due to the presence of its curcuminoid compound. According to Manikandana et al (2009) and Alcalde; Del Pozo (2008) curcumin acts in the reduction of lipid peroxidation, in addition to increasing the activity of antioxidant enzymes and neutralization of free radicals.

Rosehip Oil helps to accelerate skin normalization and ensure effective results in the treatment of spots caused by slashes produced by psoriasis. The capacity of attenuating scars and eliminating certain types of stains occurs due to its potent regenerative and moisturizing activities. In its composition contains an association of essential fatty acids, mainly omega 3, 6 and 9. Rosehip Oil still has a large amount of antioxidant compounds that exert a protective effect on the new cells to form in the regeneration lesion. The high concentrations of ascorbic acid found in Rosehip Oil play an important role in tissue regeneration, and an important element for the formation and deposition on collagen fibers on the scar, in addition to stimulating cell proliferation (SANTOS et al., 2009).

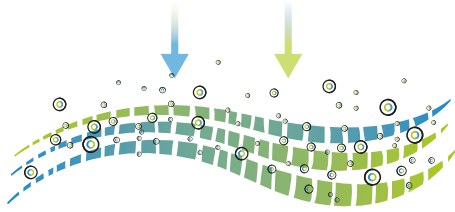
## Regulatory Information

INCI NAME	CAS NUMBER	FINECS NUMBER
AQUA	7732-18-5	231-791-2
DIPROPYLENE GLYCOL	110-98-5	208-821-4
STEARIC ACID	57-11-4	200-313-4
OLEIC ACID	112-80-1	204-007-1
LINUM USITATISSIMUM SEED OIL	8001-26-1	232-278-6
ROSA CANINA FRUIT OIL	84603-93-0	283-252-0
ALOE BARBADENSIS LEAF	8001-97-6	-----
CURCUMA AROMATICA ROOT OIL	94349-73-2	305-191-7
POLYSORBATE 80	9005-65-6	-----
PPG-15 STEARYL ETHER	25231-21-4	-----
STEARETH-2	9005-00-9	500-017-8
STEARETH-21	9005-00-9	-----
PHENOXYETHANOL	122-99-6	204-589-7
CAPRYLYL GLYCOL	1117-86-8	214-254-7
CURCUMIN	458-37-7	207-280-5
BHT	128-37-0	204-881-4

## References

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2. FILHO, A. B. C. et al. Cúrcuma: planta medicinal, condimentar e de outros usos potenciais. Cienc. Rural, v. 30, n.1, 2000.
3. MANIKANDANA, R. et al. Anti-cataractogenic effect of curcumin and aminoguanidine against selenium-induced oxidative stress in the eye lens of Wistar rat pups: An in vitro study using isolated lens. Chimico-Biological Interactions, v. 181, p. 2002-2009, 2009.
4. PEREIRA, D.C.; FRASSON, A.P.Z. Uso de aloe vera em produtos farmacêuticos e análise da estabilidade físico-química de creme aniônico contendo extrato glicólico desta planta. Revista Contexto & Saúde, 6 (12): 27-34, 2007.
5. SANTOS, J.S. et al. A Rosa Mosqueta no tratamento de feridas abertas: uma revisão. Ver Bras Enferm, 62 (3): 457-62, 2009.
6. SILVA, B.S.F. et al. Substâncias bioativas de origem vegetal no tratamento da psoríase. Natureza on line. 9 (3): 124-128, 2011

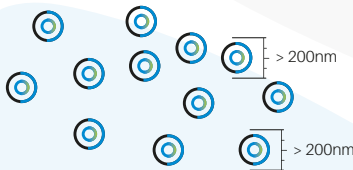
# Nanovetores Encapsulation Technology



**Multifunctional Lipid Particles** that promote hydration and high permeation.



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



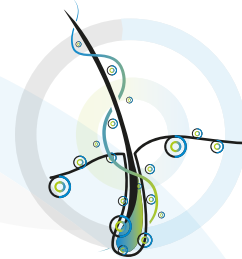
**Monodispersity**, that ensures control of the particle size, providing adequate permeation to its proposed action.



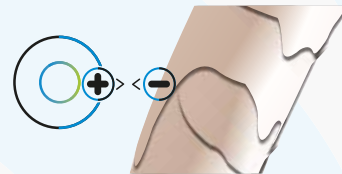
**Secure particles** larger than 200nm, biocompatible and biodegradable.



**Enzymatic Specific Release Trigger**, in which the enzymes present in our skin promote the degradation of the capsule, releasing the active ingredient.



**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