

nano revival



Active ingredients

Avocado oil, Sunflower oil, Green tea extract and Keratin.

Description

Nano Revival is a blend of encapsulated active in biopolymer nanoparticles (VAM® - Multifunctional Actives Vectors)*, with positive surface charge (zeta potential), capable to provide high substantivity to the hair.

The blend encapsulation through Nanovetores technology allows the stabilization of unstable components and thus complexes to be formulated in its free form. It also allows easier application of the final product, due to its high dispersibility in water.

Nano Revival presents capillary revitalizing activity, providing color protection, nutrition, hydration and shine to damaged hair and chemically treated hair.

The avocado oil has a unique nutritional value and is used by both the pharmaceutical industry and the cosmetic industry for hair and skin treatments. It has in its composition, various medicinal substances, among the most active, there is, lecithin, phytosterols (beta-sitosterol especially), omega 9 (oleic acid), vitamin A, D

and a high content of vitamin E. These components are important in maintaining the lubricity of the hair, providing shine and softness, and have strong antioxidant activity, which preserves the color of the hair. Avocado oil can also act as a sunscreen in cosmetics because it presents high absorption of ultraviolet (UV) rays from the sun. Furthermore, it is a potent skin regenerator, being effective in healing wounds and bedsores. Most of Avocado oil properties exist due to the presence of beta-sitosterol, which confers antimicrobial, antiviral and anti-inflammatory properties. Beta-sitosterol is also effective against hair loss, it acts by inhibiting 5- α -reductase enzyme, which catalyzes the conversion of testosterone to dihydrotestosterone, an androgen active, which connects to androgenic receptors and promotes several hormone actions. An excessive accumulation of dihydrotestosterone and its connection to hormone receptors in hair follicles lead to male baldness. (DING *et al.*, 2007; NAYAK; CHALAPATHI, 2008; LASZLO, 2012).

The sunflower oil is brightness, revitalizing, anti-inflammatory, healing and moisturizing provider. Contains in its composition bioactive essential fatty acids, being the main of



them linoleic acid (60% Omega 6) and oleic acid (20% Omega 9), it is rich in minerals and vitamins, especially vitamin E, which provides nourishing, antioxidant and anti-aging action. Rich in emollients and natural conditioning agents of skin and hair, sunflower oil provides nice texture to the cosmetic and has fast absorption, helping to restore the hair, the cutaneous barrier, promoting nutrition and protection. (SIMÕES *et al.*, 2010; INGALE; SHRIVASTAVA, 2011; MORAIS *et al.*, 2013; CAMPOS; CARVALHO; ALMA, 2014)

Green tea is a source of bioactive flavonoids with potent antioxidant activity. Fights against free radicals responsible for aging and protects against damage caused by exposure to UVB radiation. It acts as an astringent, promoting cleanliness and balance of greasy hair. (MIYAZAKI, 2008; CAVALCANTI *et al.*, 2007). Contains in its composition an important polyphenol the epigallocatequina-3-gallate (EGCG), which appears to stimulate hair growth and reduce follicular cell death by acting on cells of the dermal papilla, giving rise to hair follicles. (KWON *et al.*, 2007).

Keratin is a fibrous and structural protein found in humans in the outer layer of skin, hair and nails. It consists of about 15 amino acids, especially a amino acid sulphide called cysteine. Proteins have beneficial effects on the hair, especially those hydrolysed, improving its moisture and softness. The hydrolyzed keratin is derived from human hair carefully treated to obtain amino acids and small peptides. It is easily incorporated into formulations intended for

hair care. Due to its low molecular weight, has ease penetration into the cuticle of the hair, providing them brightness, restoration, hydration and conditioning. Contains amino and carboxyl groups in its molecule, and these make ionic bonds with the carboxyl groups and amino hair, respectively, strongly fixing the hair shaft, even after rinsing, the keratin after oxidized, becomes one water-insoluble polymer with the ability to retain it and increase the elasticity of the fibers. The vitality and appearance of the hair depends on the integrity, moistness content and distribution of charges allocated along the keratinized fiber. Keratin helps the restoration of the areas where there was disruption of peptide chain (caused by aggressive agents such as surfactants, pollutants, straighteners, dyes). The conditioning effect is due to the rebalancing of the water content and distribution of electrical charges as well as the proper pH for the closing of keratinized scales. (FRANCISCO; FRANÇA; JASINSKI, 2007; MACEDO; JOEKES, 2012).

*VAM ® Lipid and biopolymer particles of natural origin, biocompatible and biodegradable, produced in a water medium, aggregating multifunctionality to the active ingredients and with specific release triggers (Nanovetores ® Patented Technology)

Technical information

INCI NAME: AQUA HELIANTHUS ANNUUS SEED OIL, PERSEA GRATISSIMA OIL, BERTHOLLETIA EXCELSA SEED OIL, CAMELLIA SINENSIS LEAF OIL, KERATIN,



HYDROXIPROPYL GUAR, POLYSORBATE 80,
PHENOXYETHANOL, CAPRYLYL GLYCOL.

Use concentration: 0,1 to 5%.

Active Appearance: Milky suspension with cream color.

pH Stability: 2 to 7,0.

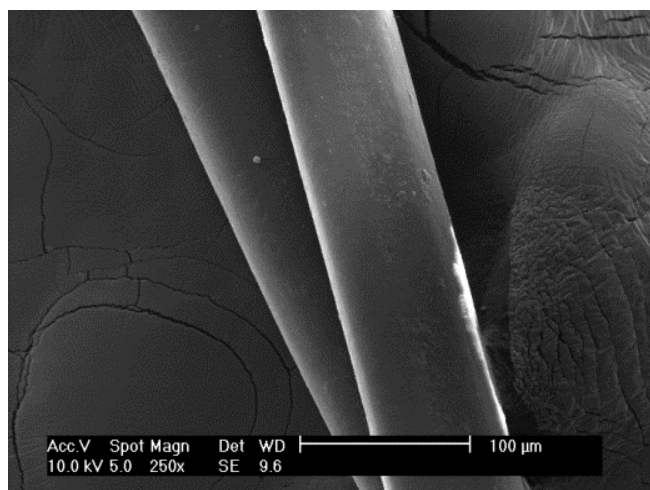
Solubility: Water dispersible.

Compatibility: Compatible with shampoos, conditioners and hair products in general.

How to use: Shake before using and incorporating in the formulation below 40°C.

Storage: Keep in temperature between 20°C - 25°C.

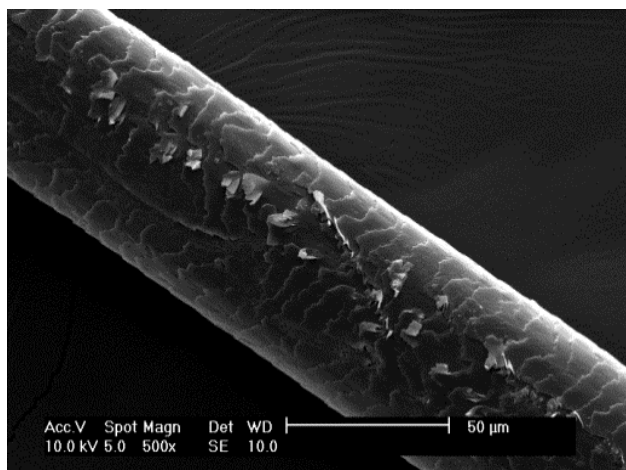
AFTER



Notorious formation of a protective film that restores, preserves the color and brightness, promoting the healthy growth of the hair.

Effectiveness of capillaries actives

BEFORE



Apparent cuticles. The whitish edges are visible in some cuticles show a slight capillary damage.

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