

NANOVETOR MELALEUCA ACNE TREATMENT

ECO

Actives: Melaleuca essential oil.

Benefits

- Antimicrobial, antiseptic and astringent action.
- Oiliness control.
- Anti-acne and anti-dandruff.
- Relieves the symptoms of cold sores.

Usage

Gels, gel-cream, emulsions in general. Solutions for wet wipes, liquid soaps, shampoos and conditioners.



DESCRIPTION

Nanovetor Melaleuca ECO is an active ingredient comprised of multifunctional particles containing melaleuca essential oil. The active ingredient is suited to be used in anti-dandruff and anti-acne products.

MELALEUCA

The active ingredient consists of melaleuca essential oil encapsulated with the technology developed by Nanovetores that allows the stabilization of sensitive components, therefore, complex of being formulated in free form, avoiding oxidation of the active ingredient and release of unpleasant odors. Due to its characteristics and non-existent skin irritation, **Nanovetor Melaleuca ECO** can be used daily, controlling oiliness and reducing acne.

The main component of melaleuca essential oil is terpinen-4-ol, which, according to studies, is responsible for antimicrobial and antiseptic actions that occur through a leukocyte activation mechanism¹. Its antimicrobial action includes fungi, yeasts, gram-negative bacteria and the herpes simplex virus.

A clinical study comparing formulations containing melaleuca essential oil 5% and commonly used benzoyl peroxide 5% for acne treatment, showed that both reduced the

Nanovetor Melaleuca ECO is an active ingredient encapsulated in lipid particles with particle diameter larger than 200 nm.

number of inflammatory lesions. However, formulations with melaleuca showed less dryness and pruritus (itching) than benzoyl peroxide. In all other evaluated side effects, the group using melaleuca also had a significantly smaller number (27 of 61 volunteers) relative to benzoyl Peroxide (50 of 63 volunteers)².

According to HAMMER³, melaleuca essential oil can cause allergic reactions in predisposed individuals, these reactions are caused not by the oil itself, but due to byproducts of oxidation reaction that occur by the components exposure to light and oxygen. Encapsulation of the active ingredient promotes controlled release and protects the interaction with the other components of the formula and the environment, preventing oxidation and avoiding potential skin irritation. Encapsulation also promotes occlusion of the characteristic odor of melaleuca essential oil, ensuring an improvement in the sensory experience of the final product.



Regulatory Information

INCI Name	CAS Number	EINECS Number
AQUA	7732-18-5	231-791-2
BUTYROSPERMUM PARKII BUTTER	194043-92-0/91080-23-8	93-515-7
MELALEUCA ALTERNIFOLIA LEAF OIL	68647-73-4	-
CAPRYLIC / CAPRIC TRIGLYCERIDE	73398-61-5	277-452-2
CETEARYL OLIVATE	85116-80-9	-
SODIUM LAUROYL LACTYLATE	13557-75-0	236-942-6
PROPANEDIOL	504-63-2	207-997-3
SORBITAN OLIVATE	223706-40-9	-
GLYCERYL CAPRYLATE	26402-26-6	247-668-1
DECYL GLUCOSIDE	54549-25-6	259-218-1
TOCOPHEROL	1406-66-2	200-201-5
HELIANTHUS ANNUUS SEED OIL	8001-21-6	232-273-9
GLYCERYL UNDECYLENATE	65684-27-7	-

Physical-Chemical Information

Aspect	Milky liquid
Color	White to cream
Odor	Characteristic
pH	6.0 to 8.0
Dispersibility	Water dispersion of encapsulated active ingredients
Density	0.9 to 1.1 g/mL

Note

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

Usage concentration

0.5 to 5.0%.

pH Stability

2.5 to 8.0.

Storage

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

Compatibility

Gels, gel-cream, emulsions in general. Solutions for wet wipes, liquid soaps, shampoos and conditioners.

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

1. BUDHIRAJA, S.S.; et al. Biological Activity of Melaleuca-alternifolia (TeaTree) Oil Component, Terpinen-4-ol, in Human Myelocytic Cell Line HL-60.Journal of Manipulative and Physiological Therapeutics,v. 22, p. 477- 453, 1999.
2. CARSON, C. F.; HAMMER, K. A.; RILEY, T. V. Melaleucaalternifolia (Tea Tree) Oil: a Review of Antimicrobial and Other Medicinal Properties. Clinical microbiology reviews, v. 19, p. 50-62, 2006.
3. HAMMER, K.A.; et al. A review of the toxicity of Melaleucaalternifolia (tea tree) oil. Food and Chemical Toxicology, v. 44, p. 616-625, 2006.

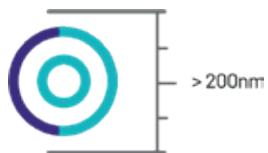
Nanovetores Encapsulation Technology



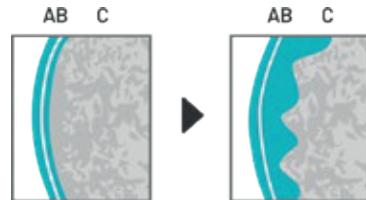
Active Ingredient Protection against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



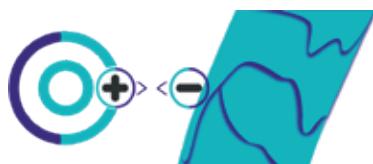
Monodispersity, that ensures control of the particle size, providing adequate permeation to its proposed action.



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



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