

# NANO CARIBBEAN OIL

EXTREME  
REPAIR

**Active:** Batana Oil.

## Benefits

- Extreme repair.
- Recovery of brightness, vitality and strength.
- Protection against daily hair aggressions.

## Application

Shampoos, conditioners, finalizers, damaged ends repairers, capillary masks. Compatible with non-ionic, anionic and cationic systems.



## DESCRIPTION

**Nano Caribbean Oil** is an active ingredients blend encapsulated in lipid particles with an average particle diameter greater than 200 nm.

The blend encapsulation through the technology developed by Nanovetores allows the stabilization of sensitive and complex components to be formulated in their free form.

For its natural characteristics and the non-existence of chemical aggression, **Nano Caribbean Oil** is indicated for damaged, dry and brittle hair, promotes extreme repair, shine, vitality and strength recovery and protection against daily hair aggressions.

**Nano Caribbean Oil** is formed by multifunctional particles containing encapsulated batana oil, known and popularized in recent years as Ojon oil.

## BATANA OIL

Batana oil is used for hair treatments and is considered revolutionary among cosmetic raw materials because it has hair rebuilding and strengthening properties.

Extracted from the nut of the *Elaeis oleifera* palm, a plant native to Central America and the Caribbean, batana oil is known to be

employed as capillary tonic in dandruff treatment<sup>1</sup>.

It has in its composition cysteine, a non-essential amino acid naturally present in hair<sup>2</sup> and high lipids concentrations, mainly palmitic acid, stearic acid, oleic acid and palmitoleic acid<sup>3</sup>.



# NANO CARIBBEAN OIL

## Regulatory Information

INCI Name	Cas Number	EINECS Number
AQUA	7732-18-5	231-791-2
ELAEIS OLEIFERA KERNEL OIL	8002-75-3	232-316-1
POLYSORBATE 80	9005-65-6	-
PHENOXYETHANOL	122-99-6	204-589-7
CAPRYLYL GLYCOL	1117-86-8	214-254-7
TOCOPHERYL ACETATE	7695-91-2	231-710-0

## Physical-Chemical Information

Aspect	Milky Liquid
Color	Beige to caramel
Odor	Characteristic
pH	3.0 to 6.0
Dispersibility	Water dispersion of encapsulated actives.
Relative density	0.9 to 1.1 g/mL

### Usage mode

Shake before use, add to the formulation below 40°C, under mild to moderate agitation at the desired concentration.

### Usage concentration

0.1 to 5.0%

### Stability pH

3.0 to 7.0

### Storage

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

### Compatibility

Compatible with non-ionic, anionic and cationic bases. It can be applied in shampoos, conditioners, finishers, damaged ends repairers and hair masks.

### 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. PLOTKIN, M.J.; BALICK, M.J. **Medicinal uses of South American palms.** Journal of Ethnopharmacology, v. 10, n. 2, p. 157-179, 1984.
2. DEKIO, S.; JIDOI, J. **Cysteine contents of purified human hair low-sulfur protein components.** Journal of Dermatological Science, v. 1, n. 2, p.132, 1990.
3. SAMBANTHAMURTHI, R.; OO, K.C.; ONG, A.S.H. **Lipid metabolism in oil palm (*Elaeisguineensis* and *Elaeisei-fera*) protoplasts.** Plant Science, v. 51, n. 1, p. 97-103, 1987.



# Nanovetores Encapsulation Technology



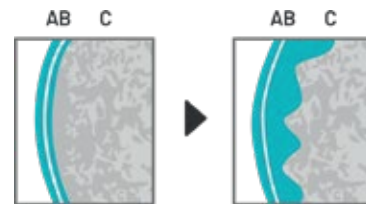
**Active Ingredient Protection** against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



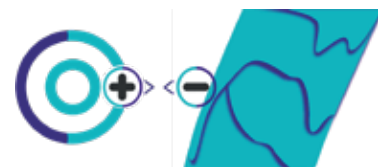
**Monodispersity**, that ensures control of the particle size, providing adequate permeation to its proposed action.



**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



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