

NANOVETORES

NV HOT

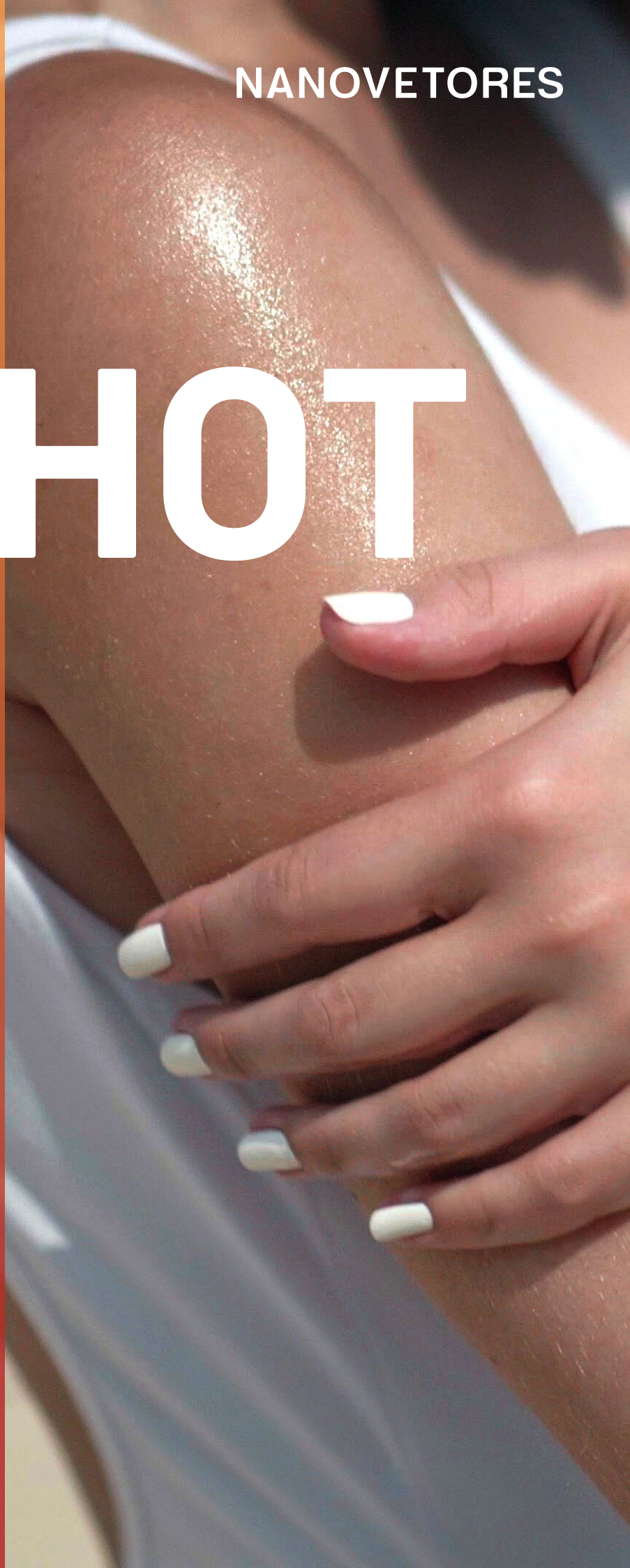
Active Ingredient:
Vanillyl Butyl Ether

Benefits/Claims

- Warming sensation

Applications

- Sensory enhancers for treatment cosmetic products
- Spa products
- Body creams
- Body lotions



SENSORY EXPERIENCE

To stand out in a highly competitive market, cosmetics brands must go beyond traditional standards of quality and aesthetics, focusing on providing unique and engaging sensory experiences. Texture and sensory properties, for example, play a crucial role in consumers' purchasing decisions.

As the consumer market becomes more demanding, the search for products that not only fulfill their pre-established functions, but also offer an enhanced sensory experience is becoming increasingly relevant. The use of sensory ingredients, such as heating or cooling agents, for example, signals to consumers the active functioning of a product. Warming sen-

sations may indicate an improvement in blood circulation, while cooling effects suggest soothing and anti-inflammatory properties. These sensory responses reinforce the perception of product effectiveness, increasing consumer satisfaction and loyalty. Thus, with the growth of the cosmetic market and its range of purchasing options, a product's ability to offer a unique sensory experience becomes a key differentiator for its success. Therefore, adding NV Hot into formulations with the goal of delivering a warming sensory effect is a way to innovate in the market and stand out from the competition.

PRODUCT DESCRIPTION

NV Hot is an active ingredient containing vanillyl butyl ether encapsulated in nanocapsules with a diameter greater than 200 nm. The encapsulation of the active ingredient through Nanovetores technology allows the stabilization of sensitive and complex components to be for-

mulated, in addition to promoting the prolonged release of the active ingredient through release triggers. Due to its natural characteristics and the non-existent chemical aggression, NV Hot can be used in different applications, bringing a warming sensation to the skin.

ACTIVE INGREDIENT DESCRIPTION

Vanillyl butyl ether (VBE) stands out as a valuable ingredient in personal care products. It provides a warming sensation and unlike other warming agents such as capsicum, ginger extract or benzyl nicotinate, VBE does not cause typical side effects such as irritation, burning, itching and redness of the skin.¹

To provide a controlled heating effect, vanillyl butyl ether interacts with the TRPV1 (Transient Receptor Potential Vanilloid 1) channel, a known mediator of heat sensation in the body. This makes it a gentler alternative for applications in products that aim to burn fat, reduce measurements and increase lip volume.^{2,3}

REGULATORY INFORMATION

INCI Name	CAS Number	EINECS Number
AQUA	7732-18-5	231-791-2
BUTYROSPERMUM PARKII BUTTER	91080-23-8	293-515-7
VANILLYL BUTYL ETHER	82654-98-6	
PPG-15 STEARYL ETHER	25231-21-4	-
STEARETH-2	9005-00-9	500-017-8
POTASSIUM CETYL PHOSPHATE	19035-79-1	242-768-1
STEARETH-21	9005-00-9	-
BENTONITE	1302-78-9	215-108-5
CAPRYLYL GLYCOL	1117-86-8	214-254-7
ETHYLHEXYLGL YCERIN	70445-33-9	408-080-2
GLYCERIN	56-81-5	200-289-5
XANTHAN GUM	11138-66-2	234-394-2
TOCOPHERYL ACETATE	7695-91-2	231-710-0

Aspect (25°C)	Milky liquid
Color	White to pinkish cream
Odor	Characteristic
Density (g/mL)	0.9 to 1.1
pH	5.5 to 7.5
Dispersibility	Dispersion of water-encapsulated actives

How to use: Shake it before using and add to formulation below 40°C.

Usage Concentration: 1 to 5%

Compatibilities: Emulsions in general, gel creams, creams and serums.

Incompatibilities: Ethanol and other organic solvents.

Stability pH: 5.0 to 8.0

Storage: Keep it in a well-ventilated area, away from light and heat.



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. RÍOS, Francisco et al. A Validated HPLC Method for the Determination of Vanillyl Butyl Ether in Cosmetic Preparations. *Cosmetics*, v. 4, n. 1, p. 9, 2017
2. Shimomura, K., Oikawa, H., Kayukawa, T., Asamizu, S., Suzuki, N., Yajima, S., & Tomizawa, M. (2019). Repellency activity of vanillyl butyl ether is mediated by transient receptor potential vanilloid channels in the red flour beetle, *Tribolium castaneum* (Herbst). *Journal of Asia-Pacific Entomology*. doi:10.1016/j.aspen.2019.07.015
3. Meza RC, Ancatén-González C, Chiu CQ and Chávez AE (2022) Transient Receptor Potential Vanilloid 1 Function at Central Synapses in Health and Disease. *Front. Cell. Neurosci.* 16:864828. doi: 10.3389/fncel.2022.864828

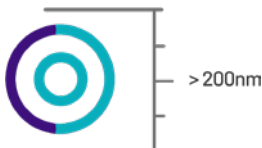
Nanovetores Encapsulation Technology



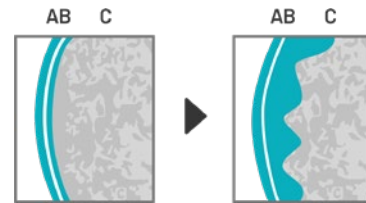
Active Ingredient Protection against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



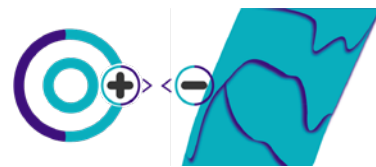
Monodispersity, that ensures control of the particle size, providing adequate permeation to its proposed action.



Secure Particle 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 Actives Ingredients and Ensure:

- Stability Improvement;
- Increased compability in the formulation;
- Occlusion of odors;
- Increased skin permeation;
- Reduced dose;
- Use of sensitive active ingredients (withou refrigeration);
- Increased Solubility;
- Prolonged release;
- Increased effectiveness.

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