NV HYALO COLLAGREEN



UNIQUE AND SURPRISING COMBINATION

Active Vegan collagen and Ingredient: hyaluronic acid

Benefit:

- Antiaging action;
- Facial filling effect;
- Wrinkle reduction;
- Reduction of expression lines;
- Increases collagen synthesis;
- Improves skin elasticity;
- Antioxidant action;
- Combats sagging;
- Enhances and restores facial volume, in regions such as cheekbone and lip contour;
- Firmer skin;
- Improves skin elasticity;
- For hair, restores and hydrates.

Application

NV HyaloCollagreen IF: Anhydrous formulas such as lipsticks, stick, sunscreens, primers, serum and deodorants.

NV HyaloCollagreen ECO: Primers, creams, shampoos, conditioners, serums, hair finishers and masks.





DESCRIPTION

NV HyaloCollagreen is a blend of actives composed of vegan collagen and hyaluronic acid encapsulated in biopolymeric particles with a diameter greater than 200nm. The encapsulation through the technology developed by Nanovetores allows the stabilization of sensitive components complex to be formulated in their free form.

The blend can be incorporated in several formulations for cosmetics, where it promotes wrinkle filling, improves hydration, skin elasticity, reduces sagging and promotes the collagen synthesis. The natural characteristics and non-toxicity of the product enable its daily use, delivering efficacy safely.

For greater application flexibility, we have two versions of NV Hyalocolagreen, which can be used in the different formulas.

NV HyaloCollagreen IF - Anhydrous bases (water-free): stick products (sunscreen, lipsticks, deodorant etc.).

NV HyaloCollagreen ECO - Aqueous bases such as: creams, serums, shampoos etc.

NV HyaloCollagreen is a rejuvenating booster based on vegan collagen and hyaluronic acid. Collagen is one of the main components of bones, skin, muscles, tendons and ligaments, it is also found in many other body parts, including blood vessels, corneas and teeth. The origin of the word collagen derives from the Greek word "kólla", which means glue, that is, it is fundamental in sustaining structures that are not sustained by bones.

Hyaluronic acid is a substance naturally present in the human body, responsible for diminushing the water evaporation rate to maintain the natural hydration of the skin, besides being a stimulating substance of collagen.

The blend of vegan collagen and hyaluronic acid act synergistically and potentiate the effects of filling wrinkles and expression lines, reducing sagging, increasing collagen synthesis, and promoting hydration.

It is an evolution of encapsulation technology with the combination of plant collagen and hyaluronic acid, which guarantee high performance in a natural way.



DESCRIPTION

Hyaluronic Acid

Sodium hyaluronate is a sodium salt of hyaluronic acid, a polysaccharide of the glucose-minoglycans class, present in seve ral organisms, primarily inside the eyes and in the umbilical cord, is used in the skin to fill wrinkles and moisturize.

Hyaluronic acid has a high capacity to bind to the water molecule forming a cohesive block². It works as a humectant and keeps water molecules on the skin surface maintain hydration. Prevents TEWL (Transepidermal Water Loss), keeping the skin hydrated, ensuring that water does not escape from the skin surface. The topical acid application, due to this ability to form a cohesive block with water, decreases the appearance of expression lines and wrinkles, enhances, and restores facial volume, making the skin smoother, firmer and rejuvenated³.

The active also has antioxidant effect, because it acts as a sequester of free radicals, increases the protection of the skin in relation to radiation and contributes to the increase of tissue repair capacity ⁴.

Chemical name: Sodium hyaluronate.

Figure 1: Chemical information and molecular structure sodium hyaluronate.

Vegan Collagen

Vegan collagen is made through the yeast fermentation, a eukaryotic microorganism that presents no safety risks of animal virus infection, and no endotoxin to the human body, being extremely safe for cosmetic applications.

Collagen molecules contain a large number of hydrophilic functional groups with excellent moisture absorption properties. Collagen peptides form a film on the skin surface, reducing water loss in the epidermal layer, providing instant and long-lasting hydration.

Collagen can be found between the interstitial tissues of the skin, increasing skin firmness, improving elasticity, reducing pores, wrinkles and expression lines. It promotes dermal cells growth and repairs damaged tissues from aging, maintains the moisture integrity of

the stratum corneum and of the fiber structure. The collagen peptide contains phenolic hydroxyl, which is an analogue substrate of tyrosinase, inhibits the activity of tyrosinase and reduces melanin formation¹.

Chemical name: Plant Collagen.

Figure 2: Chemical information and molecular structure of Plant Collagen.

CLINICAL TEST

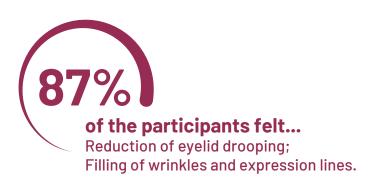
Cosmetic appreciability Anti-Aging efficacy

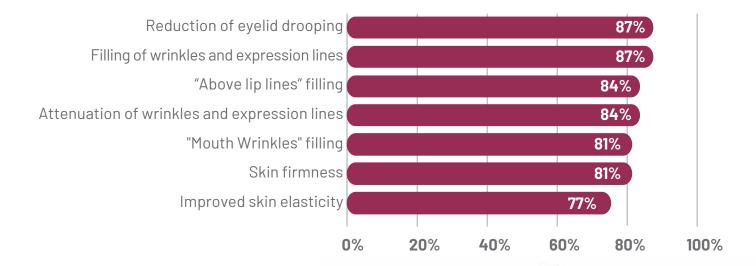
Reviewed Product: Serum NV HyaloCollagreen.

Objective: Evaluation of the product's anti-aging efficacy by cosmetic appreciability.

Methodology: The test consists of evaluating the anti-aging effect of the product by cosmetic appreciability in humans, evaluated after 30 days of product use. 32 participants who used the product participated in the evaluation, according to the

following instructions: "Apply a layer of the product until full absorption, twice a day, preferably in the eyelid and upper lip regions and extending to the entire face".





Safety test

Reviewed Product: Serum NV HyaloCollagreen.

Conclusion: No participant reported feelings of discomfort and no clinical signs were detected after using the product.



ANHYDROUS BASE

NV HyaloCollagreen IF Regulatory Information

INCI Name	Cas Number	EINCS Number
CAPRYLIC/CAPRIC TRIGLYCERIDE	73398-61-5	277-452-2
AQUA	7732-18-5	231-791-2
COCOS NUCIFERA FRUIT EXTRACT	8001-31-8	232-282-8
PEG-30 DIPOPLYHYDROXYSTEARATE	70142-34-6	-
CAPRYLYL GLYCOL	1117-86-8	214-254-7
ETHYLHEXYLGLYCERIN	70445-33-9	408-080-2
ALGIN	9005-38-3	-
SODIUM HYALURONATE	9067-32-7	-
TOCOPHERYL ACETATE	7695-91-2	231-710-0
COLLAGEN	9007-34-5	232-697-4
MANNOSE	3458-28-4	222-392-4
GLUCOSE	50-99-7	200-075-1



NV HyaloCollagreen I Physical-Chemical Information

Aspect	Slightly Viscous Milky Liquid	
Color	White to Cream	
Odor	Characteristic	
Dispersibility	Dispersion of encapsula- ted active ingredients in anhydrous environment	
Relative Density	0.9 to 1.1 g/mL	

Applications

Anhydrous bases (water-free): stick products (sunscreen, lipsticks, deodorant etc.).

How to Use

Add to the formulation under moderate agitation, at the desired concentration.

Use Concentration

1.0 to 10%

Stability pH

3.0 to 8.0

Storage

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

Compatibility

Cationic and non-ionic vehicles.

Incompatibility

Incompatible with organic solvents, such as ethanol.

AQUEOUS BASE

NV HyaloCollagreen ECO Regulatory Information

INCI Name	Cas Number	EINCS Number
AQUA	7732-18-5	231-791-2
ALGIN	9005-38-3	_
SODIUM BENZOATE	532-32-1	208-534-8
POTASSIUM SORBATE	24634-61-5	246-376-1
CALCIUM CITRATE	813-94-5/ 5785-44-4	212-391-7
SODIUM HYALURONATE	9067-32-7	_
COLLAGEN	9007-34-5	232-697-4
MANNOSE	3458-28-4	222-392-4
GLUCOSE	50-99-7	200-075-1



NV HyaloCollagreen ECO Physical-Chemical Information

Aspect	Transparent to slightly turbid liquid	
Color	Colorless to Yellow	
Odor	Characteristic	
рН	4.5 to 6.5	
Dispersibility	Dispersion of encapsulated active ingredients in water	
Relative Density	0.9 to 1.1 g/mL	

Applications

shampoos etc.

How to Use

agitation, at the desired concentration.

Use Concentration

1.0 to 10%.

Stability pH 3.0 to 8.0.

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

Compatibility

Cationic and non-ionic vehicles.

Incompatibility

Incompatible with organic solvents, such as ethanol.



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 trust-worthy 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. LIU, L.; WANG, M.; SUN, J.; DU, G. C.; CHEN, J. Enhanced hyaluronic acid production by a two-stage culture strategy based on the modeling of batch and fed-batch cultivation of Streptococcus zooepidemicus. Bioresourse Technology, v. 99, p. 1132-1136, 2008.
- **2.** BERTOLAMI, C.N.; BERG, S.; MESSADI, D.V. **Binding and internalization of hyaluronate by human cutaneous fibroblasts.** Matrix, v.11, p. 11-21, 1992.
- **3.** GUILLAUMIE, F. New sodium hyaluronate for skin moisturization and antiaging. Cosmetics & Toiletries, v. 121, p.51-58, 2006.
- **4.** Yang, C., Hillas, P.J., Báez, J.A. et al. **The Application of Recombinant Human Collagen in Tissue Engineering.** BioDrugs 18, 103–119 (2004).

https://doi.org/10.2165/00063030-200418020-00004.

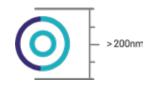
Nanovetores Encapsulation Technology



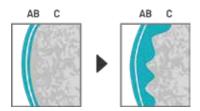
Active Ingredient Protection against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



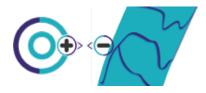
Monodispersity, that ensures control of the particle size, providing adequate permeation to its proposed action.



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 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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