

nanoliss



Hair Surface Reconstruction

Active ingredients: Onion extract, urea and glycerin.

Nano Liss is a blend of active ingredients encapsulated in biopolymer nanoparticles with particle diameter larger than 200 nm. The Blend encapsulation through the technology developed by Nanovetores allows the stabilization of sensitive components, therefore, complex of being formulated. The active consists of cationic particles with high capillary affinity containing onion extract, urea and glycerin. Due to its natural features and non-existent chemical aggression, Nano Liss can be used daily providing in continuous applications, a healthy, bright and efficient straightening.



Features

Appearance: Transparent to yellow liquid

Usage Concentration: 0,5 a 25%

pH Stability: 2,0 to 8,0

Solubility: Dispersible in Water

Particle: Cationic Biopolymer

Release Trigger: Temperature



Benefits

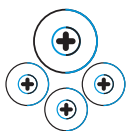
- Shielding action
- Increased hair mass
- Disciplinary effect for hair strands
- Color protection
- Temporary hair straightening



Usage

Finishing products, shampoos, conditioners, hair masks, cationic gels and aqueous solutions. The formulations should be free of ethanol and EDTA or should contain a maximum of 0.05% of this chelation.

Description



Nano Liss is a blend composed of onion extract, urea and glycerin, consisting of biopolymeric cationic particles, i.e., positively charged particles with high capillary affinity, as strands of hair are naturally negatively charged.



Hair is basically composed of keratin, a protein characterized by its high sulfur content derived from cystine. This protein forms a network of crossed links through disulfide bonds, giving the hair a certain mechanical and chemical resistance. Thus, many hair morphological structures vary their physical and chemical characteristics because of the content of sulfur bridges ⁽¹⁾.



Nano Liss, as it is constituted by nanoparticles, has the ability to penetrate the hair cortex (location for the keratin disulfide bonds). By activating the temperature trigger release with intense heating promoted by the use of the hair iron or dryer promotes degradation of urea in ammonia, temporarily breaking the sulfur bridges. Such a reaction in the presence of Nano Liss offers the possibility of rebonding, from the sulfur atoms present in the onion extract, promoting aligned shaping of strands of hair. Through thermal activation, glycerin, in combination with the capsule material, consolidates and reinforces shaping of the strands by forming a continuous film capable of providing mechanical alignment, high shine, silkiness and reconstruction. These effects can resist after washing hair 4 to 5 times.

Regulatory information

INCI NAME	CAS NUMBER
AQUA	7732-18-5
ALLIUM CEPA EXTRACT	8054-39-5
GLYCERIN	56-81-5
UREA	57-13-6
POLYSORBATE 80	9005-65-6
HYDROXYPROPYL GUAR	68442-94-4 / 39421-75-5
PHENOXYETHANOL	122-99-6
CAPRYLYL GLYCOL	1117-86-8

Physical-Chemical information

PHYSICAL STATE	LIQUID
FORM	TRANSPARENT
COLOR	COLORLESS TO YELLOW
ODOR	CHARACTERISTIC
pH	3,0 TO 8,0
SOLUBILITY	WATER DISPERSIBLE
RELATIVE DENSITY	0,9 TO 1,1 g/ML
CHEMICAL IDENTITY	ORGANIC
CHARACTERIZATION	BLEND

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

Approved by International Regulations:



Brazil - ANVISA



Europe - EC Cosing



USA - CIR



Australia - AICS Inventor



STORAGE:

KEEP IN A TEMPERATURE BETWEEN 20°C - 25°C



INCOMPATIBILITY:

ETHANOL AND OTHER ORGANIC SOLVENTS.

References

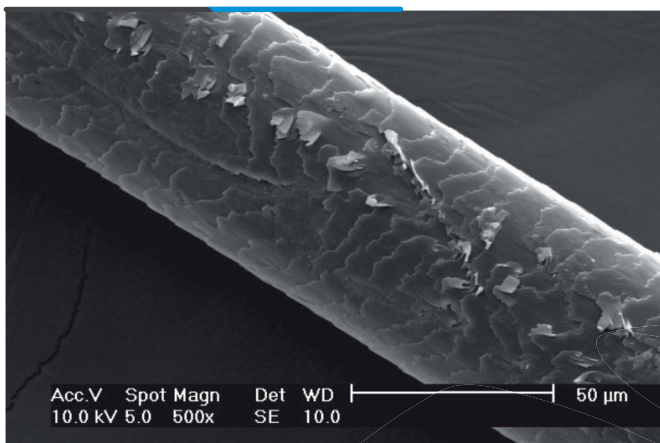
1 - WAGNER, R.C.C. A estrutura da medula e sua influência nas propriedades mecânicas e de cor do cabelo. 2006. 95 f. Tese (Doutorado em Química) - Instituto de Química, Universidade Estadual de Campinas, Campinas. 2006.

2 - RAMOS-E-SILVA, M.; CASTRO, M.C.R.; CARNEIRO-JUNIOR, L.V. Hair Removal. Clinics in Dermatology, v. 19, p. 437-444, 2001.

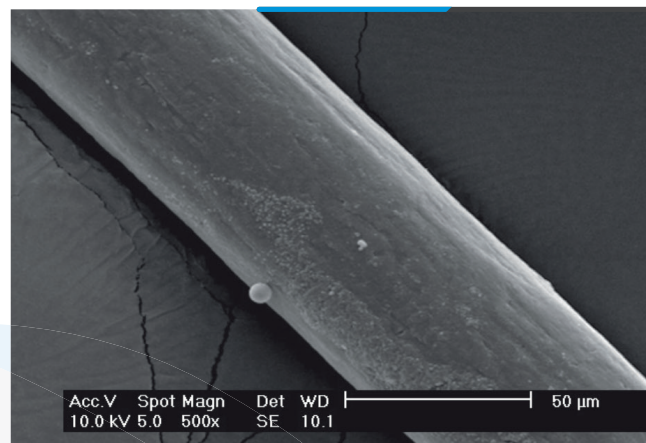
3 - ARRUDA, P.V.; RODRIGUES, R.C.L.B.; FELIPE, M.G.A. Glicerol: um subproduto com grande capacidade industrial e metabólica. Revista Analytica, n. 26, p. 56-62, 2007.

Effectiveness Test

Before



After



Conclusion: The product promoted hair surface reconstruction in just 1 application.

Suggested Formula

Spray Nano Liss 25%

Indicated for professional and home care, Spray Nano Liss 25% is a leave-in for daily hair treatment that reduces volume and frizz, shapes strands of hair, promoting temporary straightening and deep hydration with durability after washing the hair approximately 5 times. The product thermal activation is able to rejuvenate the strands of hair, providing them again with a shiny and healthy texture. This versatile product when not thermal activated, has the property to define curls in wavy and curly hair.

PHASE I %	PHASE II %	PHASE III %
Preservative.....0,05 Water qs.....100,00 Technique: Homogenize	DC 8170.....2,00 DC 2220.....2,00 Fragrance.....1,00 Technique: Homogenize	Nano Liss.....25 Technique: Homogenize

- 1- Add Phase I gradually on II and homogenize
- 2- Add phase III on I + II and homogenize.

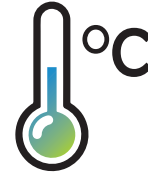
Usage Protocol

- 1 Wash your hair with shampoo pH 7,0
- 2 Rinse with water
- 3 Still with damp hair, spray Nano Liss Spray (do not rinse). As it is thermal activated, the use of dryer and/or hair iron around 180 °C is indicated.

Nanovetores Encapsulation Technology



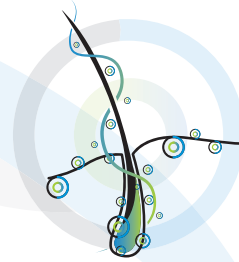
Multifunctional biopolymeric particles that increase the capillary adhesion and form a shielding film.



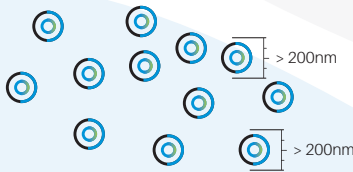
Specific release trigger by temperature, where a heat source promotes the degradation of the capsule, releasing the active ingredient.



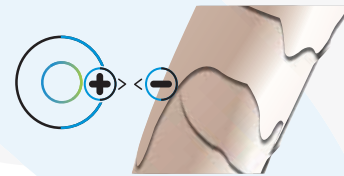
Active Ingredient Protection against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.



Greater permeation on the contact surface due to the small size of the capsule.



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



Surface Charge Control of the particle, promoting greater affinity with the contact surface.



Secure particles larger than 200nm, biocompatible and biodegradable.



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

Use of sensitive active ingredients (without refrigeration)

Increased compability in the formulation

Increased Solubility

Occlusion of odors

Prolonged release

Increased skin permeation

Increased effectiveness

Reduced dose