Import and distribution for Serbia: Farmadria DOO
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# TECHNICAL DATA SHEET

**Product Name:** Hydrolyzed Keratin Protein

**INCI:** Water, Hydrolyzed Keratin Protein, 1,2-dihydroxypentane, (+)-Arabinogalactan, 3-o-Ethyl Ascorbic Acid, Benzyl alcohol, Potassium sorbate, Sodium benzoate

**CAS:** 7732-18-5, 69430-36-0, 5343-92-0, 9036-66-2, 86404-04-8, 100-51-6, 24634-61-5, 532-32-1

**Chemical Classification:** Mixture, Proteins/derivatives

**Functional Category:** Conditioner for skin and hair care. Forms a flexible, cohesive, and continuous layer (film) on the skin and hair.

**Description:** Hydrolyzed keratin protein is an ingredient used in cosmetic products for the restoration and strengthening of hair and skin. In its hydrolyzed form, the large keratin molecules are broken down into smaller fragments, making them more easily absorbable and effective in treatment applications. It differs from other proteins in that it is rich in cysteine (a sulfur-containing amino acid), which gives it unique strength and protective qualities. Cysteine forms disulfide bonds that are crucial for reinforcing the structure of keratin. These bonds help maintain the stability and resilience of keratin fibers, giving hair and nails particular strength and elasticity, as well as protection from external damage. This protein plays a key role in revitalizing damaged strands, especially in chemically treated or dry hair. When applied to hair, hydrolyzed keratin penetrates the outer layers of the hair shaft, filling in gaps in the damaged cuticle, thereby restoring hair structure. This not only improves the hair's texture but also increases its resistance to breakage, while the protective layer created by keratin prevents further damage. Hair becomes softer, more elastic, and shinier, and keratin also helps to reduce frizz. Additionally, hydrolyzed keratin neutralizes the electric charge on the hair's surface, making combing easier and leaving the hair smooth and shiny, while also providing protection from the negative effects of sun exposure, thermal devices, and chemical treatments. In skin care preparations, hydrolyzed keratin acts as a humectant, helping to retain moisture in the skin, thereby improving its elasticity and softness. It also has the ability to form a protective film on the surface of the skin and nails, further aiding in moisture retention and making the skin smoother and firmer. Its film-forming properties are particularly useful in products intended for skin and nail care, where it provides protection and aids in regeneration. pH value: 5.0-6.8. The product is preserved with

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benzyl alcohol, sodium benzoate, and potassium sorbate. Clear amber-colored liquid with a characteristic odor. It is water-soluble.

**Benefits:**

- Strengthens hair structure, penetrates the outer layers of the hair shaft, filling in gaps in the damaged cuticle, thereby enhancing its structure.
- Repairs damaged hair: Restores damage caused by chemical treatments, heat, and environmental factors.
- Controls the static charge of hair, making it smoother and more manageable.
- Protects hair from harmful effects of UV radiation, pollution, and thermal devices.
- Enhances shine and appearance: Gives hair a healthy, radiant, and vibrant look.
- Reduces hair tangling, enabling easier styling.
- Retains moisture in the skin, keeping it hydrated and soft.
- Helps skin maintain firmness and elasticity, slowing the signs of aging.
- Creates a barrier that protects against moisture loss and external environmental damage.
- Reduces static electricity on the hair's surface, making styling easier.
- Promotes natural processes of cell regeneration in the skin and hair.

**Usage Instructions:** Hydrolyzed keratin is used in a wide range of cosmetic products for hair and skin, including shampoos, conditioners, serums, facial creams, and body lotions. In hair care products, such as shampoos, conditioners, and masks, the recommended concentration of hydrolyzed keratin typically ranges from 0.5% to 5%, depending on the formulation and desired effects. In shampoos, it is used to strengthen and repair damaged strands, while in conditioners and masks, it helps to restore and increase hair elasticity. In skin care products, such as creams and lotions, hydrolyzed keratin is used in concentrations from 0.2% to 5%. Its role in these formulations is primarily to hydrate the skin and improve its elasticity, while also forming a protective film that prevents moisture loss. It is also used in nail care products, where it helps to strengthen and protect delicate and brittle nails. When formulating products, hydrolyzed keratin is usually added during the cooling phase to preserve its bioactivity. It is important not to expose it to excessively high temperatures, as this may reduce its effectiveness in products.

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**Animal Testing:** Not tested on animals

**GMO:** Non-GMO

**Vegan:** Does not contain animal-derived components

**Raw Material Origin:** EU

**Transport and Storage:** Hydrolyzed keratin protein can be transported at temperatures between 20°C and 25°C without significant impact on its quality, as it is stable for short periods under such conditions. However, for long-term preservation of its bioactivity and integrity, it is recommended to store it in a refrigerator at temperatures between 4°C and 8°C. Low temperatures help prevent protein degradation, oxidation, or loss of efficacy, extending its shelf life and maintaining its functional properties in formulations. Cooling also reduces the risk of microbiological contamination or undesirable changes in the texture and quality of the ingredient.

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