

TECHNICAL DATA SHEET

Product Name: Hydrolyzed Elastin Protein

INCI: Water, Pentylene Glycol, Hydrolyzed Elastin, Arabinogalactan, 3-O-Ethyl Ascorbic Acid, Benzyl Alcohol, Potassium Sorbate, Sodium Benzoate

CAS: 7732-18-5, 5343-92-0, 91080-18-1, 9036-66-2, 86404-04-8, 100-51-6, 24634-61-5, 532-32-1

Chemical Classification: Proteins/Derivatives

Functional Category: Skin and Hair Conditioner

Description: Hydrolyzed elastin protein is an important cosmetic ingredient known for its ability to restore elasticity to the skin and hair, and for its anti-aging benefits. Elastin, found in the dermis, plays a key role in maintaining tissue firmness and flexibility. As the body ages, elastin production decreases, leading to loss of tone and elasticity, and the formation of wrinkles. Factors such as UV radiation and pollution accelerate the breakdown of elastin fibers, reducing the skin's ability to renew itself naturally. The hydrolysis process breaks elastin down into smaller fragments, such as peptides and amino acids, which are more easily absorbed and act more effectively on the deeper layers of the skin. These fragments stimulate the formation of new elastin fibers, restoring elasticity and improving skin hydration. Proteins also act as humectants, retaining moisture in the skin, contributing to its smoothness and softness. Formulations containing hydrolyzed elastin are often used in products intended for mature skin and anti-aging care. In addition to facial care products, this ingredient is present in hair care formulations, where it strengthens the hair, improves elasticity, and prevents breakage. Hair becomes softer, more elastic, and more resistant to external factors. Thanks to its ability to regenerate skin and hair, hydrolyzed elastin protein promotes a youthful appearance, improves texture, and offers protection from environmental damage. The protein content ranges between 10% and 15%, and the pH value is between 4.5 and 6.5. This ingredient is a clear, light-yellow liquid with a characteristic odor, soluble in water, and preserved with benzyl alcohol, potassium sorbate, and sodium benzoate.

Benefits:

- **Increases skin elasticity:** Helps the skin retain its flexibility and reduces the

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appearance of fine lines and wrinkles.

- **Moisturizes skin:** Retains moisture in the skin, making it smooth and soft.
- **Improves hair structure:** Strengthens hair and helps restore damaged strands.
- **Promotes skin regeneration:** Assists in skin cell renewal, making it healthier and more radiant.
- **Protects against loss of elasticity:** Prevents premature skin aging by maintaining firmness and tone.

Usage: Hydrolyzed elastin is used in various types of cosmetic products to enhance skin and hair elasticity. In skincare formulations such as creams, serums, or lotions, it is typically added in concentrations of 2% to 5%. These concentrations provide optimal hydration and improve elasticity, while giving the skin a smooth and soft texture. In hair care products, such as conditioners or masks, it is used in similar concentrations, between 1% and 3%, where it helps strengthen and repair damaged hair. Elastin is usually added during the cooling phase to preserve its delicate structure and bioactivity, ensuring it retains its beneficial properties in the final product. It is stable over a wide pH range, making it suitable for various formulations. For external use only.

Production Process: The fibrous tissue of codfish skin is washed, purified, and dried. The dried elastin fibers are then hydrolyzed for several hours until the desired product structure and molecular weight are achieved. Hydrolyzed elastin is derived from elastin fibers, which are a natural protein present in animal connective tissue. After extraction, the elastin is hydrolyzed to reduce its molecular weight, enabling better absorption and more efficient use in cosmetic products.

Animal Testing: Not tested on animals

GMO: Non-GMO

Storage: Hydrolyzed elastin can be transported at room temperature, between 20°C and 25°C, without significantly affecting its quality, as it is stable for short periods under these conditions. However, for long-term preservation of its bioactivity and integrity, storage in a refrigerator at temperatures between 4°C and 8°C is recommended. Lower temperatures help prevent protein degradation, oxidation, or loss of efficacy, which prolongs its shelf life and preserves its functional properties in formulations. Refrigeration also reduces the risk of microbial contamination or unwanted changes in

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