Import and distribution for Serbia: Farmadria DOO
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TECHNICAL DATA SHEET

Product name: Hyaluronic Acid Medium Molecular Weight (100 - 500 kDa)

INCI name: Hyaluronic Acid MMW

CAS: 9067-32-7

Chemical classification: Biological polymer/derivative; Carbohydrates

Functional category: Humectant, Viscosity modifier ~ Increase;
Skin conditioning agent ~ Other

Origin of the raw material: China

Description: Hyaluronic Acid (HA) is a natural substance found in the human body and belongs to the glycosaminoglycan family. It is present in various tissues and fluids, such as skin, joints, and eyes. It plays a crucial role in controlling tissue permeability, cell protection and lubrication, fluid retention, and macromolecular transport between cells. It binds a large amount of water, up to 500 times its weight. MMW stands for "Medium Molecular Weight," referring to the size of hyaluronic acid molecules. In the case of MMW, the molecular weight of hyaluronic acid ranges from 100 to 500 kilodaltons (kDa). Medium Molecular Weight Hyaluronic Acid influences the increase in the concentration of necessary enzymes in the skin and contributes to overall skin health. It actively assists in cellular differentiation during the formation of new epidermal cells, helping the skin defend against aging factors, the negative effects of sunlight, environmental pollution, and harmful chemicals. It strengthens and balances defense mechanisms, normalizing the function of healthy skin. MMW is a white powder, odorless, and soluble in water. Shelf life is up to 3 years if protected from moisture and microbiological contamination.

Benefits:

- ***Hydration and Moisturization:*** MMW hyaluronic acid is known for its ability to attract and retain moisture in the skin. It is often used in moisturizing creams, serums, and lotions to achieve skin hydration and improve moisture levels in the upper layers of the skin.

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• ***Anti-aging:*** Commonly used in "anti-aging" skincare products, MMW hyaluronic acid helps replenish the levels of hyaluronic acid in the skin, promoting a younger and fuller appearance by reducing fine lines and wrinkles.

• ***Firmness and Elasticity of the Skin:*** MMW hyaluronic acid stimulates collagen production, a protein responsible for maintaining skin firmness and elasticity. By enhancing collagen synthesis, MMW hyaluronic acid improves skin texture, tightens the skin, and enhances overall firmness.

• ***Soothing Action on the Skin:*** MMW hyaluronic acid has soothing properties that can help calm irritated or sensitive skin. It forms a protective barrier on the skin, reducing moisture loss.

• ***Enhances Absorption of Active Cosmetic Ingredients:*** MMW hyaluronic acid can act as a delivery system, improving the absorption and effectiveness of other active skincare ingredients. Its ability to penetrate the skin allows it to carry other active ingredients deeper into the layers of the skin, maximizing their benefits.

Usage: Typically used in concentrations of 0.1-5%. It is easily soluble in water, and when thickened, it forms "thin" gels. Hyaluronic acid should be carefully dispersed in water with constant stirring at high speed (best with a hand mixer or vortex mixer). The mixture begins to thicken, forming a "viscous" gel. At this point, additional hyaluronic acid cannot be added because there is no water in which the hyaluronic acid would dissolve (additional hyaluronic acid would only form lumps). Solubility can be increased by heating the solution to a maximum of 60°C (140°F).

Application: Used in cosmetic products for moisturizing and increasing skin elasticity, facial care products, creams and serums, anti-aging products, pre- and post-sun lotions, and cosmetic products for sensitive or dry skin.

Method of obtaining: Glucose, soy peptone, and yeast extract.

Animal testing: The substance has not been tested on animals.

GMO: Not genetically modified.

Vegan: Does not contain components of animal origin.