Import and distribution for Serbia: Farmadria DOO
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TECHNICAL DATA SHEET

Product Name: Tara Gum (Caesalpinia spinosa)

INCI Name: Caesalpinia Spinosa Gum

CAS: 39300-88-4

Chemical Classification: Gums, Hydrophilic Colloids, and Derivatives

Functional Category: Adhesive/Adhesion Promoter, Skin Conditioning Agent ~ Miscellaneous, Viscosity Modifier ~ Thickener

Description: Caesalpinia Spinosa Gum, known as tara gum, is a natural biopolymer extracted from the endosperm of the Caesalpinia spinosa seeds, a woody plant native to the arid regions of the Andes in South America, particularly Peru. This gum is primarily used in the cosmetic industry for its thickening and stabilizing properties and exhibits excellent compatibility with a wide range of cosmetic ingredients. In formulations, tara gum can create viscous yet light gels, providing a smooth and creamy texture to products. It functions as an emulsifier, stabilizing oil-in-water (O/W) emulsions, preventing phase separation and prolonging the shelf life of products. Tara gum is highly effective in small concentrations, making it a cost-efficient choice for cosmetic manufacturing. It also enhances skin hydration by binding water and reducing transepidermal water loss. Combined with other plant-based gums, such as xanthan or guar gum, it can increase the viscosity and stability of formulations. Its plant-based origin and biodegradability make it a suitable choice for natural and vegan cosmetics. It is non-irritating, making it suitable even for sensitive skin types. It is often used in cosmetics as an alternative to synthetic thickeners and stabilizers. It appears as a fine white to yellowish-white powder. Its molecular weight varies, typically ranging from 300,000 to 1,000,000 Daltons. The powder is soluble in cold water and more easily in hot water but insoluble in organic solvents. Tara gum is stable across a wide pH range and can withstand high temperatures.

Benefits:

- ***Thickening Agent:*** Caesalpinia spinosa gum acts as a natural thickener, enhancing the viscosity and texture of cosmetic formulations. It provides smooth, luxurious textures to creams, lotions, and gels.

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• ***Stabilizing Properties:*** It prevents phase separation and enhances emulsion stability. Caesalpinia Spinosa Gum is non-ionic, making it compatible with both anionic and cationic ingredients. It shows significant resistance to electrolytes.

• ***Barrier Formation:*** Forms a thin film on the skin or hair surface, creating a protective barrier. This film helps reduce moisture loss, improves hydration, and shields against environmental factors.

• ***Water Retention:*** It has excellent water-absorbing and holding capacity, contributing to the moisturizing properties of cosmetic products. It hydrates and softens the skin, leaving it smooth and supple.

• ***Texture Modification:*** Adjusts the texture of formulations, giving them the desired consistency and spreadability.

• ***Compatibility:*** Compatible with a wide range of cosmetic ingredients, including other gums, emulsifiers, and preservatives.

• ***Sustainability:*** As a natural ingredient derived from Caesalpinia spinosa seeds, tara gum offers a sustainable, eco-friendly option for cosmetic formulations. It is biodegradable and meets the demand for natural, eco-conscious products.

Usage Instructions: Caesalpinia Spinosa Gum is typically used in cosmetic formulations at low concentrations, as even small amounts provide the desired viscosity and stability. In creams and lotions, concentrations usually range from 0.2% to 1%, allowing for products that are lightweight yet retain moisture and have a pleasant, smooth texture. In gels, where higher density is needed, slightly higher concentrations may be used, but balance is essential to maintain a light texture and transparency. Tara gum is usually added to the water phase of the formula and left to hydrate, absorbing water and gradually building viscosity. It dissolves in cold water but activates more quickly in warm water, speeding up the formulation process. Mixing is important to avoid clumping, and a blender or other mechanical mixer can be used for full homogenization. Combining with other thickeners, like xanthan gum or guar gum, allows for achieving the desired viscosity in various products, from light serums to rich creams. This combination also improves emulsion stability, resulting in longer shelf life and better resilience under different conditions, including temperature or pH variations.

Source: Seeds of the Tara Spinosa Tree

Production: Extracted from the seed endosperm

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Animal Testing: Not tested on animals

GMO Status: Non-GMO

Vegan: Contains no animal-derived components