

TECHNICAL DATA SHEET

Product name: Beta Glucan

INCI name: Aqua, Glycerin, Beta-Glucan, 1,2-Hexanediol, Pentylene Glycol

CAS: 7732-18-5, 56-81-5, 26874-89-5, 6920-22-5, 5343-92-0

Chemical classification: Carbohydrate

Functional category: Skin and hair conditioning agent; Humectant

Origin of the raw material: USA

Description: Beta-glucans are a type of soluble fiber found in various natural sources, including certain grains (oats and barley), yeast, and some bacteria. The beta-glucan of exceptional value is derived from mushrooms: Shiitake (*Lentinula edodes*), Reishi mushroom (*Ganoderma lucidum*), Maitake mushroom (*Grifola frondosa*), Agaricus blazei (*Agaricus subrufescens*), and Chaga mushroom (*Inonotus obliquus*). Chemically, these compounds are polysaccharides, meaning they consist of long chains of glucose molecules. Beta-glucan obtained from mushrooms differs from that derived from oats. It is soluble in water and glycerin. It does not contain preservatives. The solution is colorless to slightly yellow; pH 6-8.

Benefits:

- **Hydration:** Beta-glucan acts as a humectant, attracting and retaining moisture. When topically applied, it can help hydrate the skin, keeping it moist and preventing dryness due to its high molecular weight and water-binding capacity.
- **Antioxidant action:** Beta-glucan possesses antioxidant properties, neutralizing free radicals in the skin that can damage collagen and other structural tissues. Reducing oxidative stress can help preserve collagen health.
- **Anti-aging:** Beta-glucan may stimulate fibroblasts, encouraging them to produce more collagen. This stimulation contributes to improved skin elasticity and firmness, reducing the appearance of fine lines and wrinkles.
- **Wound healing:** Research indicates that beta-glucan can impact the natural skin healing process, aiding in the repair of damaged skin. This makes it beneficial in skincare products and for treating minor skin injuries.

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- **Support for the skin's immune system:** Beta-glucan can stimulate the skin's immune response, contributing to defense against external stressors and influencing overall skin health.
- **Sun protection:** While not a substitute for sunscreen products, beta-glucan can offer a certain level of protection against UV radiation. It can contribute to the skin's defense mechanisms and help reduce sun-induced damage.
- **Texture enhancement:** Beta-glucans can improve the texture of cosmetic products, enhancing overall feel and spreadability of formulations, making them more pleasant for users.
- **Compatibility with other ingredients:** Beta-glucan blends well with various cosmetic ingredients and can be incorporated into various formulations, including creams, serums, lotions, and masks.

Usage: The component is part of the water phase of formulations. It is typically added in concentrations ranging from 1% to 5%. It remains stable when stored in closed containers in a cool and dry place. For external use only.

Application: Used as an active ingredient in numerous cosmetic products, including anti-aging creams, lotions, skin serums, masks, and in decorative cosmetics.

Original raw material source: Mushrooms - Lions Mane Mushroom (*Hericium erinaceus*)

Extraction method: Isolated and purified from mushrooms.

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

GMO: Not genetically modified.

Vegan: Does not contain components of animal origin.

Customs Tariff Number: 39139090

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