Sponge Spicule

Description

Spongilla Spicules are microscopic, needle-shaped siliceous structures obtained from sustainably farmed freshwater sponges. They create a gentle, purely mechanical micro-stimulation on the skin surface, supporting natural renewal processes and contributing to a smoother, fresher appearance.

Their characteristic structure generates tiny, temporary microchannels in the stratum corneum, helping to improve the distribution of cosmetic formulations on the skin. This mechanical stimulation can promote the regeneration of the upper skin layers and refine overall skin texture.

Spongilla Spicules remain in the outermost epidermal layers and are naturally shed within 2–3 days through the skin's normal desquamation cycle, which may include mild exfoliation.

The Spongilla technology offers a natural, non-invasive method of mechanical skin stimulation and is ideal for formulations aimed at skin renewal, smoothness and a healthy, even complexion.

Efficacy

- natural micro-needling effect
- gentle exfoliation
- improves ingredient penetration
- boosts skin renewal & cell turnover
- helps improve skin radiance
- improves microcirculation
- anti-inflammatory
- supports a more even-looking skin tone

Appearance

white fine powder

INCI

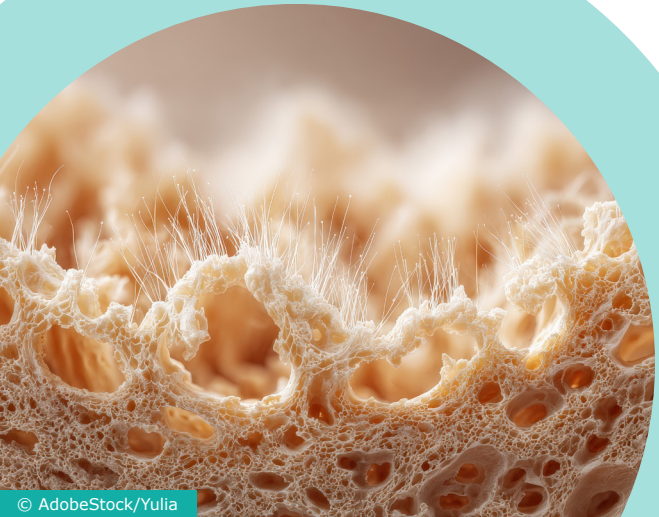
Hydrolyzed Sponge

Registration

CAS-No.....-/-
EC-No.....-/-

Preservatives / Stabilizers

none



The power behind cosmetics.
Nature & Science in perfect balance!

Sponge Spicule

Characteristics

loss on drying.....<= 7 %
assay (titration).....>= 99 %
particle size.....100 % pass 80 mesh
diameter.....10 – 15 µm
length.....200 – 300 µm
amount microneedles per gram.....5 – 6 million

Application

masks
creams
serums
booster ampoules
powder treatments
gel formulas
leave-on treatments
professional cabin treatments

Application concentration

0.1 - 1 % for daily use
1 - 10 % special treatment

Incorporation

Spongilla Spicules should be incorporated during the final stage of production to preserve their micro needle structure. Add the material slowly to the finished and cooled base (recommended processing temperature: < 40 °C) while using gentle, low shear mixing. Avoid high shear equipment such as homogenizers or Ultra Turrax, as intense mechanical stress may fracture the spicules and alter their performance profile.

A stable gel network is recommended to keep the spicules evenly suspended and prevent sedimentation in low viscosity systems.

Toxicology

Safe under normal use conditions. The pure raw material may be irritating, especially to the eyes. Not suitable for use in eye products.

Storage & Shelf life

Should be stored in original sealed containers in a dry, well-ventilated and light protected place at temperatures between 10 - 25 °C.

In closed original containers the shelf life is 24 months.

Selco Wirkstoffe Vertriebs GmbH
Straßburg 16
69483 Wald-Michelbach / Germany
Phone +49 6207 939 94 0
Fax +49 6207 939 94 10
www.gfn-selco.de / info@gfn-selco.de

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