The Natural Choice for Silky Skin and Hair – Velsan® Soft

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Introduction

Over the last decade a steadily growing trend towards natural, efficient, pleasant and safe products has been seen in the cosmetic market. Growing environmental concerns are leading to a change in consumer behaviour, resulting in growth rates for natural cosmetics significantly above the market average. Therefore there is a strong need to replace synthetic ingredients with naturally derived materials.

This need also applies to silicones. This class of synthetic ingredient is very popular and has been widely used in the cosmetic industry for decades. This is a result particularly of their ability to act as an emollient and a spreading agent. The emollient properties make them versatile ingredients as skin and hair conditioning actives. In addition they are key ingredients for improving the perception of cosmetic formulations to achieve high consumer acceptance in terms of sensory feel. This is a key criteria for market success. Due to the poor biodegradability of silicones and the resulting public discussion on environmental risks, the cosmetic market is looking for natural replacements for silicones, without sacrificing performance (in terms of sensory feel).

Velsan® Soft (INCI: Chitosan Succinamide) is a key ingredient for supporting these needs. In cosmetic products Velsan® Soft is ideally suited to enabling full or partial substitution of silicones in skin and hair care formulations. This versatile cosmetic ingredient acts:

- as a sensory booster, providing a unique skin-feel in skin care products to replace silicones
- as a foam enhancer for surfactant systems (in contrast to silicones and other cationic biopolymers)
- and as a hair conditioner in shampoos.

The fact that the precursor Chitosan is derived from a sustainable, vegetal source underlines the 'green' profile of this high-added-value ingredient.

Composition and Properties of Velsan® Soft

Velsan® Soft is obtained from the naturally derived biopolymer Chitosan and Succinic Acid Anhydride. It is a modified amphoteric biopolymer with amino and carboxylate groups along with amide functions and a polyaminosaccharide backbone. The chemical structure is shown in Figure 1.

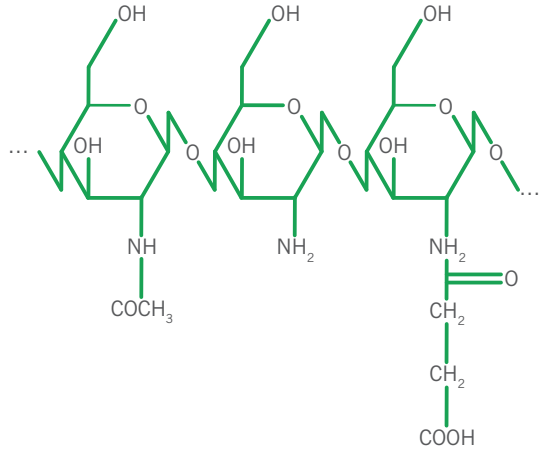

Figure 1. Chemical Structure of Velsan® Soft (INCI: Chitosan Succinamide)

Specific to the Chitosan used for the synthesis of Velsan® Soft is its GMO-free vegetal and sustainable source of the edible mushroom *Agaricus Bisporus*, commonly known as 'champignon'. From this source Chitosan is accessible via a patented process. In contrast to Chitosan from marine sources, this renewable origin is inexhaustible and at the same time offers to formulators of cosmetic products the important advantage of a constant and high quality. The issue of inexhaustible, renewable raw material sources will gain additional importance in the future because of the debate about sustainability (e.g. destruction of rain forests and overfishing of oceans).

Figure 2. Champignon, the Inexhaustible Vegetal and Sustainable Source of Chitosan