

SalSphere® Sunkiss (SS SK)

A technology designed to generate an even and long-lasting sunless tan.

Dihydroxyacetone (DHA) is the only FDA-approved ingredient for sunless tanning, but it has an unpleasant odor and limited efficacy on its own. SS SK used a unique delivery system to mask the odor, and it combines DHA with other ingredients to enhance performance.

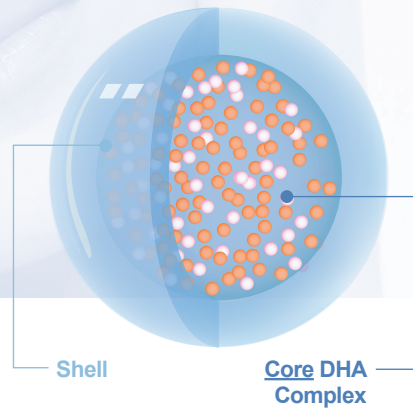


Figure 1: The sub-micron structure of SS SK with its shell and core encapsulating DHA.



UNIQUE FEATURES

- 1 INSTANT AND LONG-LASTING TAN**
Due to the slow release system, SS SK can offer long-lasting results.
- 2 REDUCED ODOR**
The encapsulation technology of SS SK reduces the unwanted odor usually associated with sunless tanning products.
- 3 LONGER SHELF LIFE**
Using the SalSphere® encapsulation and time release technology, avoid typical problems formulating with DHA, such as a limited shelf life and malodor.

HOW THE TECHNOLOGY HELPS YOU

SS SK is a unique sub-micron sphere delivery system designed to enhance the efficacy of DHA. The technology is composed of spheres that have a polymeric core infused with DHA (Figure 1). The mechanism of operation is based on the core slowly partitioning into the skin to release DHA over time. This produces a natural-looking, even tan that lasts longer (Figure 2).

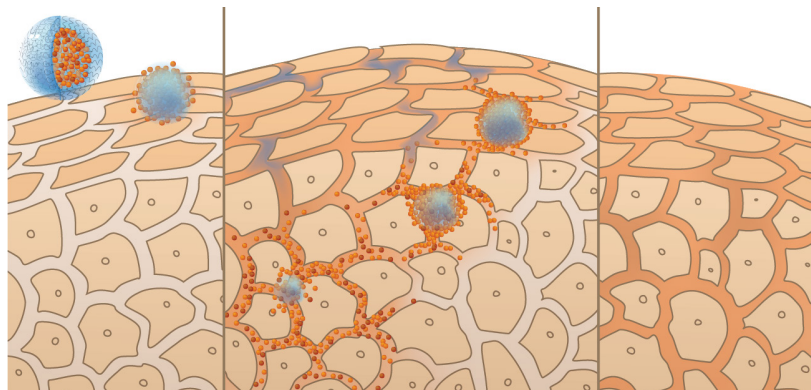
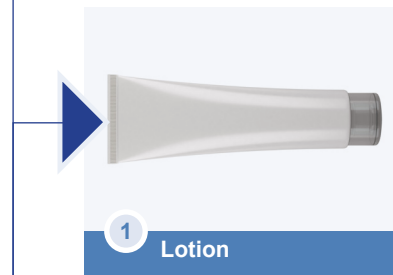


Figure 2: SS SK mechanism of release into the stratum corneum results in an even, natural-looking tan.

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ENHANCED STABILITY AND SHELF LIFE

SS SK technology protects DHA from premature reactivity, thus enhancing stability (Figure 3). By enhancing stability, SS SK is able to deliver a maximum amount of DHA to the skin for increased efficacy.

Unencapsulated DHA, in a lotion loaded at 8%, shows discoloration after just five days (Figure 4).

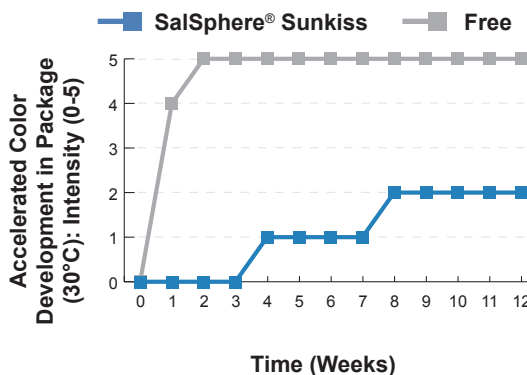


Figure 3: Color intensity discoloration of lotion containing SS SK vs free.

REDUCED ODOR IN FORMULATION

Encapsulation of DHA in SS SK significantly reduces the undesirable odor that is characteristic of sunless tanning products (Figure 5).

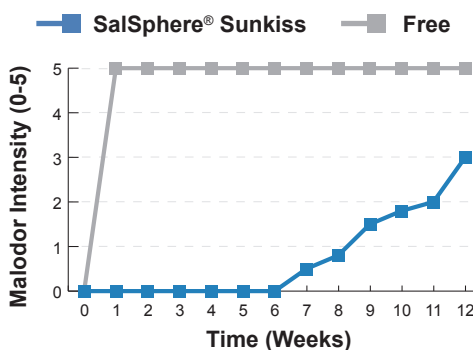


Figure 5: SS SK reduced odor compared to the free DHA formulation at 30°C in lotion (8% DHA).

FORMULATION

Ingredients	(W/W %)
SalSphere® Sunkiss	2
SalColorFx™ White to Brown	2
Salvona Pre-Mix A #5019	20
DI Water	75
Preservative	1

TECHNICAL DATA

Appearance @ 20°C	Opaque paste
Applications	Skin care products such as lotions and creams
Color	Off-white
Odor	Characteristic
pH (1% Solution)	4.5 ± 1.5
Shelf Life (months)	24
Usage Level (wt%)	5
Storage (°C)	Closed container at 12-32°