

SalSphere® Even Skin (SS ES)

A time release delivery system for salicylic acid (SA) to rejuvenate and restore your skin.

Cosmetic and dermocosmetics have used salicylic acid (SA), a beta hydroxy acid, to repair skin issues for ages, but this benefit came with major side effects such as dryness and irritation. SS Even Skin is a new technology offering a time release of SA, enabling the enjoyment of health benefits of SA without the typical side effects.

SA is a poorly-soluble ingredient and always challenged formulation chemists with low solubility and pH levels. SS ES is a revolutionary solution that allows for easy use in water and alcohol-free formulations. The encapsulated active is designed to be compatible with commonly used, cost effective carbomer-based thickeners to produce clear products such as facial wash and lotion. This technology enables creation of new products in a single step, by adding the technology to the prepared base in an easy mixing process.

SS ES is highly loaded with SA and can be diluted to any concentration desired. In dermatology and dermocosmetics, the technology is best for the treatment of dermatitis, acne, psoriasis, calluses, and more. In the cosmetic area, a lower concentration of SS ES is recommended for daily skin toning, brightening, scar and pore reduction, excess sebum reduction, blemish removal, and skin smoothing for a younger and brighter look.

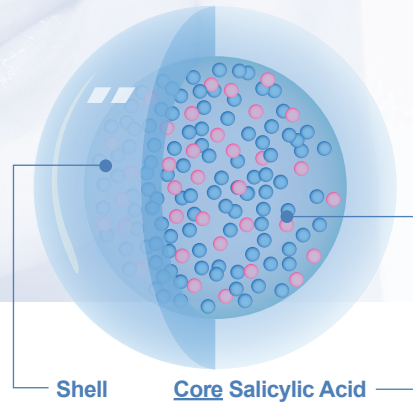
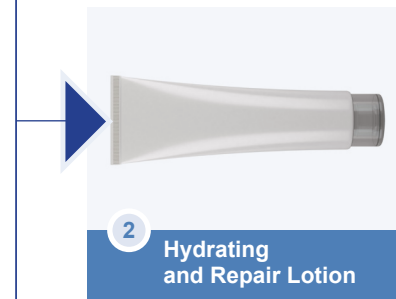


Figure 1: SS ES is composed of sub-micron spheres, in which SA is encapsulated.



SS ES raw



UNIQUE FEATURES

- 1 **FORMULATION READY** in water-based, carbomer-based emulsions.
- 2 **SUSTAINED RELEASE** skin-friendly, can be used for sensitive skin.
- 3 **CLEAR APPEARANCE**

HOW THE TECHNOLOGY HELPS YOU

SS ES is composed of sub-micron spheres (Figure 1), in which SA is encapsulated. The mechanism of release is based on adhesion of the sphere to the lipid domains on the skin and then the slow release of SA.

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EVENING OUT SKIN

SS ES, designed to gently exfoliate the skin, provides a significant increase in exfoliation as compared to free (unencapsulated) salicylic acid from a wash application (Figure 2).

In experimentation, it was found that SS ES provides a 20% increase of the exfoliation achieved by free salicylic acid.

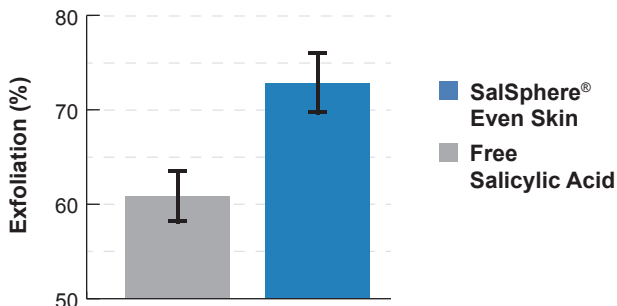


Figure 2: Percent difference of SS ES exfoliation as compared to free salicylic acid. Exfoliation is measured as dye reduction.

APPLICATIONS FOR BETTER SKIN

Chemical peels: SS ES is used for chemical peel procedures with levels of 20 and 30% SA. Chemical peels are helpful for a variety of skin conditions and reduce the dead skin and debris that result in blackheads, whiteheads, and acne.

Warts: A wart is a small, rough growth of a solid blister. Topical treatments containing SA are very effective.



Blemishes



Scars



Irritation



Acne



WASH FORMULATION

Ingredients	(W/W %)
SalSphere® Even Skin	1.67
Acrylates/C10-30 Alkyl Acrylate Crosspolymer	40
Propanediol	7.5
Water	50.73
Sodium Anisate	0.1

LOTION FORMULATION

Ingredients	(W/W %)
SalSphere® Even Skin	1.67
Acrylamidopropyltrimonium Chloride/Acrylates Copolymer & Isohexadecane & Coceth-7	2.5
Water	95.83

TECHNICAL DATA

Appearance @ 20°C	Translucent liquid
Applications	Cleansers, lotions, and creams, foot care (warts)
Color	Light amber
Odor	Characteristic
SA Loading	30 ± 3
Shelf Life (months)	18
Usage Level (wt%)	Cosmetic: Up to 1.67 OTC: 1.67-6.67 Rx: Over 6.67
Storage (°C)	Closed container at 12-32°