



# Poly-Pore® 450SA

## Salicylic Acid Delivery System

**Description:** A multi-functional delivery system useful in a wide variety of cosmetic and personal care products and formulations. Supplied as a free flowing white powder, Poly-Pore® 450SA contains no preservatives or surfactants.

### Improve Formulation Simplicity and Elegance

Poly-Pore® 450SA contains a 50% loading of Salicylic Acid, inside the matrix of the Poly-Pore polymer. Because of the unique multifunctional characteristics of the system, when using Poly-Pore® P450SA dispersion of salicylic acid requires only mixing rather than use alcohols or other solvents as typically required. This allows the formulator a range of alternates to use as the base without concerns over buffering the system.

### Controlled Delivery of Functional Ingredients

The matrix of the Poly-Pore delivery system provides a ready "reservoir" for active ingredients. The release of these ingredients occurs through a combination of friction and diffusion, providing a substantially slowed release of the active. The slowing of the release of salicylic acid helps minimize irritation, while providing material available for extended effectiveness.

#### Typical Properties

Composition:	Allyl Methacrylates Crosspolymer and Salicylic Acid
Appearance:	White, free flowing powder
Salicylic Acid Level:	50 ± 2.0%

### BENEFITS

- Enables, simple, solvent free, alcohol free incorporation of Salicylic Acid in all types of personal care products, including gels, emulsions, creams, and loose and pressed powders
- Extended release of salicylic acid results in reduced irritation and long-lasting availability at the site of action
- Provides sebum control reducing shine and extending wear in color cosmetics
- Enhances emulsion stability
- Improves stability of formulations typically destabilized by acids – such as carbomer gels
- Provides secondary thickening in gels and emulsions

### TYPICAL APPLICATIONS

- Facial treatments and skin care products including gels, emulsions, and anhydrous products
- Make-ups and Foundations incorporating skin-care benefits
- Daily use moisturizers and lotions
- Exfoliating gels and treatments
- Loose and pressed powders





## Storage Recommendations and Shelf-Life

Storage under normal warehouse conditions, ranging from 40 – 100 F, in a tightly sealed drum.

## Sustained Release of Salicylic Acid

The figure below shows the sustained release of salicylic acid from a formulation that contains Poly-Pore® 450SA in comparison to the same formulation that only contains salicylic acid. The formulation that has “free”, i.e., non-entrapped salicylic acid, releases the active faster than when all the salicylic acid is contained in Poly-Pore. This can lead to formulations with reduced irritation and thereby improved consumer use.

## Release of Salicylic Acid From Poly-Pore® 450SA in a Franz Diffusion Cell

