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## Technical Information

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WF-No. 114312

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# Salcare® SC 96

® = Registered trademark of BASF

Rheology Modifier

<b>Characterization</b>	Salcare SC 96 is a cationic homopolymer dispersed in medicinal grade white oil.
<b>PRD-No.*</b>	30483211  * BASF's commercial product numbers.
<b>INCI Name</b>	Polyquaternium 37 (and) Propylene Glycol Dicaprate Dicaprylate (and) PPG-1 Trideceth-6
<b>Applications</b>	Salcare SC 96 is designed for use in a range of applications in the cosmetics industry. It is typically used to enhance the performance of skin and hair care formulations, providing thickening and conditioning. A typical application level in skin creams is around 2% polymer as supplied.
<b>Performance Highlights</b>	Allows direct addition of thickener at any stage of manufacture. Requires no pre-mixing or special equipment. Can be added to cold aqueous systems, thickens simply by agitation. Aids suspension and stabilisation of organic and inorganic pigments. High thickening efficiency, hence low usage levels in many applications. Gives good uniform performance, this reproducibility is unattainable with natural gums.
<b>Prime Functions</b>	Thickening Conditioning Suspending/stabilising agent Promotes good spreading Opacifying Moisturising

**General Properties**

Nature	Non-aqueous liquid dispersion of a polymer
Appearance	Mobile liquid
Color	Off-white
Odor	Slight
Gravimetric Solids %	50
Viscosity as supplied (25 °C) (RVT/2/50)	400 cPs
Viscosity 2% solution (25 °C) (RVT/6/20)	30000 cPs
pH of 2% solution (25 °C)	4.0
Freeze/Thaw Stability	Stable
Density @ 20 °C	1.0 g/cm <sup>3</sup>

**Formulating**

Salcare SC 96 is designed for use in the presence of nonionic and cationic ingredients. It is particularly effective when formulating around pH 3 – 6.

**Oils, Silicones and Emollient Esters**

Salcare SC 96 can be used in formulations containing a wide range of these ingredients up to a total of 35%. This enables the simple formulation of skin creams without any heating or further emulsification.

**Alcohol**

Formulations containing up to 50% denatured ethanol can be successfully thickened using Salcare SC 96. A typical application of this type of product could be a conditioning aftershave product.

**UV Absorbers**

Salcare SC 96 can be used in combination with a range of nonionic UV Absorbers.

**Versatility**

Salcare SC 96 is designed in a concentrated liquid form which is freeze/thaw stable. Salcare SC 96 allows the formulator to eliminate several stages from the normal manufacturing procedure.

Salcare SC 96 enables formulators to efficiently viscosify products over a wide pH range, in particular the acidic region.

Salcare SC 96 is designed for use in the presence of cationic and nonionic ingredients.

Salcare SC 96 is a dual purpose product, it gives the desired rheology and is also substantive.

Thus Salcare SC 96 viscosifies and conditions all in one.

Salcare SC 96 gives good emolliency and rub in characteristics in skin creams and lotions.

Salcare SC 96 allows formulators to optimize the ingredients used in cationic systems, a major advantage over conventional anionic thickeners.

**Thickening Efficiency of Salcare SC 96**

Salcare SC 96 is a highly efficient thickener which may be used over a wide pH range.

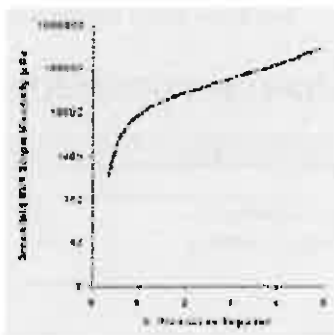
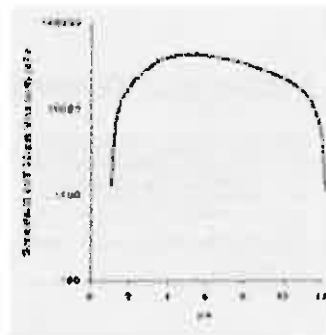
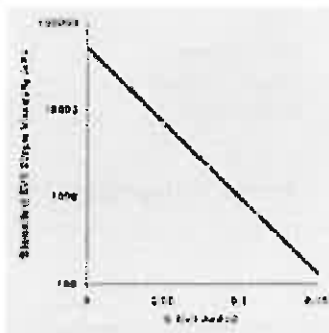


Fig 1: Effect of Concentration on the Viscosity of Salcare SC 96



2% Product as Supplied  
Fig 2: Effects of pH on the Viscosity of Salcare SC 96

The efficiency of Salcare SC 96 is reduced in the presence of monovalent ions. Di and trivalent ions cause a greater loss in efficiency. Any viscosity decrease at higher electrolyte levels can be offset by using a higher concentration of Salcare SC 96.



2% Product as supplied  
Fig 3: Effects of Salt (NaCl) on the Viscosity of Salcare SC 96

**Typical Applications**

Salcare SC 96 will enhance the performance of hair care.

Application Area	Approx. Use Level (% Active)	End Results/Performance
Hair Conditioner	2.5	Conditioning, opacifying
Liquid Cream Conditioner	3.0	Emulsion stabilisation, thickening, conditioning
Economy Conditioner	2.0	Thickening, conditioning
Hair Moisturiser	2.5	Thickening, conditioning, emulsion stabilisation
Cosmetic Base	4.0	Base gellant, moisturising, thickening, conditioning
Hand & Body Lotion	3.0	Thickening, conditioning, moisturising
Suntan Lotion and Cream	3.0	Thickening, quick penetrating, spread enhancement
Foundation/Make-up Remover	3.5	Thickening, conditioning

Assistance can also be offered to solve any formulation problems.

**Packaging**

Salcare SC 96 is available in 25 kg and 220 kg drums.

**Health & Safety**

Detailed information on handling and any precautions to be observed in the use of the product described in this leaflet can be found in the relevant Safety Data Sheet.

**Note**

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