

Salcare[®] SC 80

® = Registered trademark of BASF group

Rheology Modifier

| | | | | | | | | | | | | | | | | | | | |
|---|---|--------|--|------------|---------------|-------|-------|------|----------------|----------------|-------|------------------------|-----|--------------------------|------------------------|-------------------------------|--------|---|-----------|
| Characterization | Salcare SC 80 is an aqueous anionic acrylic copolymer emulsion. | | | | | | | | | | | | | | | | | | |
| PRD-No.* | 30481971 * BASF's commercial product numbers. | | | | | | | | | | | | | | | | | | |
| INCI Name | Steareth-10 Allyl Ether / Acrylates Copolymer. | | | | | | | | | | | | | | | | | | |
| Applications | Salcare SC 80 is an alkali soluble associative thickener 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 where a clear gel is required. | | | | | | | | | | | | | | | | | | |
| Performance Highlights | Ease of manufacture of finished product. Viscosity build at room temperature on neutralisation. Ideal for clear gel products. Efficiency in thickening surfactants systems. Thickens over pH range 6.5 – 12.0. | | | | | | | | | | | | | | | | | | |
| Prime Functions | Viscosity building Associative Rheology Electrolyte tolerance | | | | | | | | | | | | | | | | | | |
| General Properties | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Nature</td> <td style="padding: 2px;">Non-aqueous liquid dispersion of a polymer</td> </tr> <tr> <td style="padding: 2px;">Appearance</td> <td style="padding: 2px;">Mobile liquid</td> </tr> <tr> <td style="padding: 2px;">Color</td> <td style="padding: 2px;">White</td> </tr> <tr> <td style="padding: 2px;">Odor</td> <td style="padding: 2px;">Slight Acrylic</td> </tr> <tr> <td style="padding: 2px;">Solids Content</td> <td style="padding: 2px;">30.0%</td> </tr> <tr> <td style="padding: 2px;">pH as supplied (25 °C)</td> <td style="padding: 2px;">3.0</td> </tr> <tr> <td style="padding: 2px;">Specific gravity (25 °C)</td> <td style="padding: 2px;">1.05 g/cm³</td> </tr> <tr> <td style="padding: 2px;">Viscosity as supplied (25 °C)</td> <td style="padding: 2px;">50 cPs</td> </tr> <tr> <td style="padding: 2px;">Viscosity 3.33% aqueous solution (25 °C) (RVT/5/20)</td> <td style="padding: 2px;">10000 cPs</td> </tr> </table> | Nature | Non-aqueous liquid dispersion of a polymer | Appearance | Mobile liquid | Color | White | Odor | Slight Acrylic | Solids Content | 30.0% | pH as supplied (25 °C) | 3.0 | Specific gravity (25 °C) | 1.05 g/cm ³ | Viscosity as supplied (25 °C) | 50 cPs | Viscosity 3.33% aqueous solution (25 °C) (RVT/5/20) | 10000 cPs |
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| Formulating | Salcare SC 80 is designed for use in the presence of nonionic and anionic ingredients. It is particularly effective when formulating around pH 6.5 – 10.0. | | | | | | | | | | | | | | | | | | |
| Oils, Silicones and Emollient Esters | Salcare SC 80 is compatible with a wide range of these ingredients. The use of additional solubilisers may be necessary if a clear gel product is required. | | | | | | | | | | | | | | | | | | |
| Alcohol | Salcare SC 80 is effective as a thickener in formulations containing up to 30% denatured ethanol. A typical application would be a skin toner formulation. | | | | | | | | | | | | | | | | | | |
| UV Absorbers | Water-soluble UV absorbers can be incorporated into formulations containing Salcare SC 80. | | | | | | | | | | | | | | | | | | |

Thickening Efficiency of Salcare SC 80

Salcare SC 80 is an efficient thickener which may be used over a wide pH range of 6 – 12, suitable for use in depilatory or hair relaxer formulations.

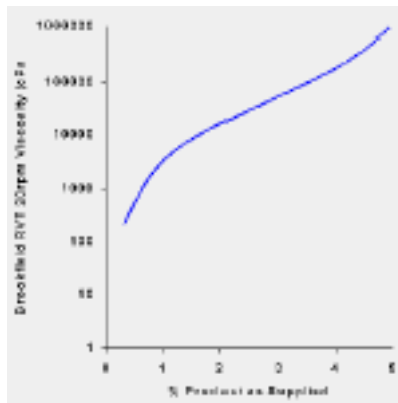
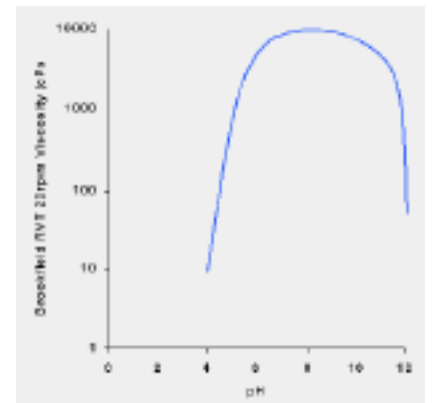
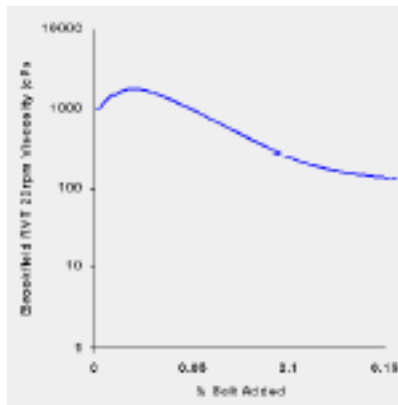


Fig 1: Effect of Concentration on Viscosity of Salcare SC 80 (neutralised to pH 7)



3% Product as Supplied
Fig 2: Effects of pH on the Viscosity of Salcare SC 80

The efficiency of Salcare SC 80 may be slightly increased by the addition of small quantities of ionic salts. Any viscosity decrease at higher electrolyte levels can be offset by using a higher concentration of Salcare SC 80.



3% Product as Supplied
Fig 3: Effects of Salt (NaCl) on the Viscosity of Salcare SC 80

Stability in Surfactants

Salcare SC 80 is compatible with a wide range of anionic, amphoteric and nonionic surfactants. Formulations containing combinations of these types of surfactants, Salcare SC 80 and salt (NaCl) show more efficient viscosity build than with salt alone.

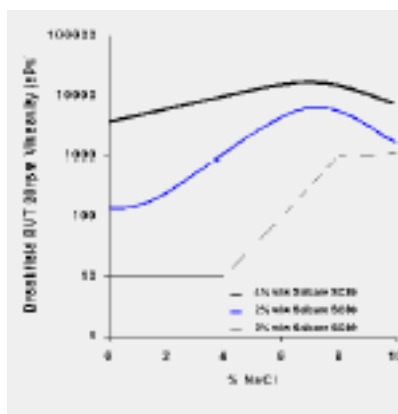


Fig 4: Effect of Salcare SC 80 on the Viscosity of 20% Sodium Lauryl Ether Sulphate SLES 3 mol Solutions

Typical Applications

Salcare SC 80 will enhance the performance of hair care.

| Application Area | Approx. Use Level (% Active) | End Results/Performance |
|-------------------------|-------------------------------------|--------------------------------|
| Facial Toner | 3.2 | Thickening |
| Depilatory | 7.5 | Thickening, gellant |
| Shampoo | 5.0 | Thickening, synergy with salt |

| Application Area | Approx. Use Level (% Active) | End Results/Performance |
|-------------------------|-------------------------------------|--------------------------------|
| Clear Sun Screens | 6.0 | Thickening |
| Facial Scrubs | 5.0 | Thickening, suspending |
| Shower/Bath Gels | 5.0 | Thickening, synergy with salt |

Packaging

Salcare SC 80 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 Health and Safety information sheet.

Note

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