

IC Application Note No. S-283

Title: Long-chain anionic surfactants

Summary: Determination of octylsulfonate, octylsulfate, dodecylsulfate and oleate in a shower cream using reversed phase chromatography with conductivity detection after chemical suppression applying gradient elution.

Sample: Shower cream

Sample Preparation: 0.1 g of sample is dissolved in 50 mL ultrapure water

Column: Prontosil 120-5-C18-ace-EPS

Temperature: 40 °C

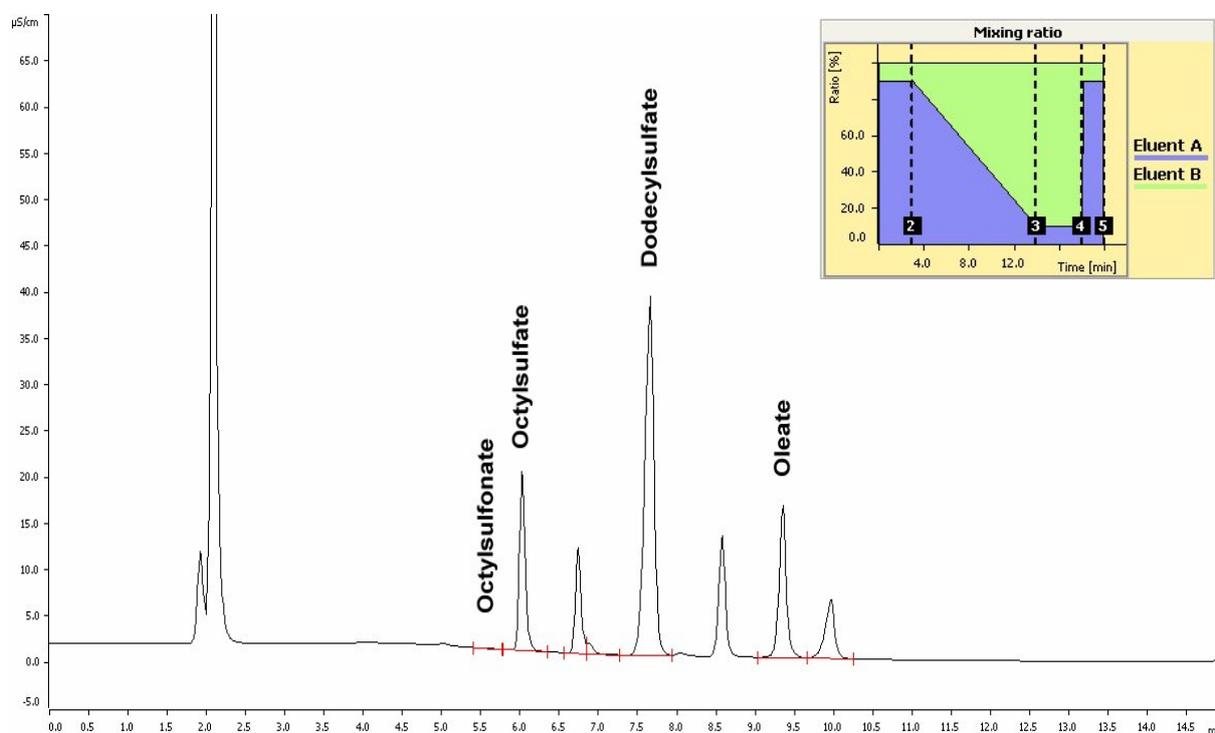
Eluent A: 20 mmol/L boric acid, pH = 8.0 (NaOH)

Eluent B: Acetonitrile

Suppressor: Metrohm Suppressor Module MSM (100 mmol/L H₂SO₄)

Flow: 1.0 mL/min

Injection Volume: 20 µL



| Results: | Octylsulfonate g/kg | Octylsulfate g/kg | Dodecylsulfate g/kg | Oleate g/kg |
|-----------------|------------------------|----------------------|------------------------|----------------|
| | ~0.1 | 28.1 | 153 | 470 |