Ti Application Note No. T- 12

Title:	**Cationic surfactants in hair conditioner**

***Summary*:**	Determination of cationic surfactants in hair conditioner by potentiometric titration with dioctylsodium sulphosuccinate using the «Ionic Surfactant» electrode.

Sample:	Hair conditioner

Sample Preparation:	Dissolve 0.5 ... 2.5 g sample in 20 mL isopropanol with stirring and heating. While stirring slowly add 80 mL dist. water. During this procedure the solution gets turbid but stays homogeneous.

Instruments and Accessories:	702, 716 or 736 Titrino or 726 Titroprocessor, 6.0507.120 «Ionic Surfactant» electrode and 6.0726.100 reference electrode (bridge electrolyte c(NaCl) = 1 mol/L)

Analysis:	Titrate the prepared sample solution with bis(2-ethylhexyl)-sodium sulphosuccinate (= dioctylsodium sulphosuccinate, Na DOS), c(Na DOS) = 0.01 mol/L.

Calculation:	mmol/g cationics = EP1 * C01 / C00 EP1 = titrant consumption in mL C00 = sample weight in g C01 = 0.01 (concentration of the titrant in mol/L)

Remarks:	To get a completely homogeneous solution it is absolutely necessary to dissolve the sample in isopropanol first. **Result:** AVG(10) = 0.0808 +/- 0.0004 mmol/g cationics