

# Ti Application Note No. T- 14

**Title:** Chlorhexidine in wash lotion

**Summary:** Determination of chlorhexidine in wash lotion by potentiometric titration with sodium tetraphenylborate using the NIO surfactant electrode.

**Sample:** Wash lotion

**Sample Preparation:** none

## **Instruments and**

**Accessories:** 702, 716 or 736 Titrino or 726 Titroprocessor, 6.0507.010 NIO surfactant electrode and 6.0726.100 reference electrode (bridge electrolyte c(NaCl) = 3 mol/L)

**Analysis:** Weigh exactly ca. 0.3 mL sample into a beaker and dilute with 60 mL dist. water, then titrate with sodium tetraphenylborate c(STPB) = 0.01 mol/L.

**Calculations:** % chlorhexidine =  $EP1 * C01 * C02 * C03 / (C00 * C04)$

EP1 = titrant consumption in mL

C00 = sample weight in g

C01 = 0.01 (concentration of the titrant in mol/L)

C02 = titre of the titrant

C03 = 252.74 (M(chlorhexidine) / 2 in g/mol)

C04 = 10 (conversion factor for %)

**Remarks:** C03 is different if the result of the calculation doesn't refer to chlorhexidine but to one of its salts (e.g diacetate, dichloride, digluconate).

**Result:**

AVG(5) = 2.05 +/- 0.02 % chlorhexidine