

Ti Application Note No. T- 3

Title: Salt content (NaCl) of canned food

Summary: Determination of chloride in canned vegetables by potentiometric titration with silver nitrate using the Ag Titrode.

Sample: Canned beans, tomato paste etc.

Sample Preparation: Shake the unopened container to incorporate any sediment. Open the container and weigh 50.0 g sample into a mixer. Add 450 g dist. water and mix for 1 ... 2 min.

Instruments and Accessories: 702, 716 or 736 Titrino or 726 Titroprocessor, 6.0430.100 Ag Titrode

Analysis: Weigh exactly ca. 5 g of the mixed sample into a beaker, add 50 mL HNO₃ (volume ratio conc. HNO₃ : dist. water = 1 : 49; ca. 0.2 mol/L HNO₃) and 45 mL dist. water and titrate with c(AgNO₃) = 0.1 mol/L.

Calculation: $\% \text{NaCl} = \text{EP1} * \text{C01} * \text{C02} * \text{C03} / \text{C00}$

EP1 = titrant consumption in mL
C00 = ca. 0.5 (g of original sample contained in the sample volume used for the titration)
C01 = 0.1 (concentration of the titrant in mol/L)
C02 = 58.44 (M(NaCl) in g/mol)
C03 = 0.1 (conversion factor for %)

Remarks: Result (pickled cucumber juice):
AVG(6) = 1.830 +/- 0.003 % NaCl