ISE Application Note No. I - 3

Title:	Sodium content of electrolyte powder

***Summary*:**	Determination of sodium in electrolyte powder (for pharmaceutical use) by direct potentiometry using the Sodium ISE

Sample:	Pharmaceutical product (electrolyte powder)

Sample Preparation:	Exactly weigh about 0.5 g sample into a 100 mL volumetric flask, dissolve in dist. water, fill up to the mark and mix.

Instruments and Accessories:	692 pH/Ion Meter, 725 Dosimat, 728 Magnetic Stirrer, 6.0501.100 Na ISE, 6.0726.100 Ag/AgCl reference electrode (inner electrolyte c(HCl) = 0.1 mol/L, outer electrolyte TISAB), printer

Reagents:	**Sodium standard:** 1000 mg/L Na^+, prepared from NaCl (2.542 g/L NaCl) **TISAB:** Mix 75 mL triethanolamine with 500 mL dist. water. Set the pH value to 8.0 by adding HCL (c(HCl) = 2 mol/L). Fill up to 1000 mL with dist. water.

Analysis:	**Calibration:** Fill 25 mL of TISAB into the measuring vessel, then start the automatic calibration with a 5 point calibration curve. Values should be between 0.001 and 0.01 mol/L Na^+. **Sample:** Add 25 mL TISAB and 1.0 mL sample solution into the measuring vessel, then start the automatic determination by pressing the «print» button of the 692 pH/Ion Meter.

Remarks:	After each determination the electrode has to be rinsed with dist. water. The electrode should then be «dried» carefully with a soft paper tissue. **Result:** AVG(5) = 20.22 +/- 0.2 % Na^+