

# KF Application Note No. K- 7

**Title:** Water in yoghurt powder

**Summary:** The water content of yoghurt powder is determined according to Karl Fischer. Because of the relatively high water and fat content the sample is prediluted with a 1 : 1 mixture of chloroform and methanol.

**Sample:** Yoghurt powder

**Sample Preparation:** Weigh exactly ca. 10 g sample into a septum flask and add 50 mL solvent mixture (also weighed). Stopper the flask and stir for 1 h. For the blank determination a flask has to be prepared in the same way but without sample.

**Instruments and Accessories:** 701 KF Titrino or 720 KFS Titrino, 703 Titration Stand, printer

**Analysis:** In the «blank determination» mode, inject 2 mL solvent mixture using a syringe (carry out a fivefold determination). The results of the determinations are stored automatically for the subsequent analysis. For the actual analysis add ca. 2 mL sample solution with a syringe to the titration vessel containing 20 mL preconditioned methanol, then start the automatic titration (fivefold determination). The exact mass of the added solvent mixture (blank determination) or sample solution (actual analysis) is determined by difference weighing.

**Reagents:**

Solvents: methanol (dry)  
solvent mixture: volume ratio chloroform : methanol =  
1 : 1

Titrant: Hydranal Composite 5 (Riedel-de Haën)

**Results:**  $AVG(5) = 3.87 \pm 0.013 \%$  water

<b>Settings:</b>	701 KF Titrino
	>titration parameters
	extr.time            0 s
	stop crit.:          drift
	stop drift           20 uL/min
	>preselections
	conditioning:        on
	req.smpl size:       on
	report:               full