

KF Application Note No. K- 11

Title: Water in moisturising creams (cosmetic products)

Summary: The water content of moisturising creams is determined according to Karl Fischer. Because of their high water content the samples are first mixed and prediluted with dry methanol.

Sample: Different moisturising creams

Sample Preparation: Weigh exactly ca. 1 g sample into a septum flask and add ca. 75 mL methanol (also weighed). Stopper the flask and put it into an ultrasonic bath at 30 °C for 10 min.

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

Analysis: In the «blank determination» mode, inject 3 mL methanol using a syringe (carry out a triplicate determination). The results of the determinations are stored automatically for the subsequent analysis. For the actual analysis add ca. 3 mL sample solution with a syringe to the titration vessel containing 20 mL conditioned methanol, then start the automatic titration (triplicate determination). The exact mass of the added methanol (blank determination) or sample solution (actual analysis) is determined by difference weighing.

Reagents:

Solvent: methanol (dry)

Titration: Hydranal Composite 5 (Riedel-de Haën)

Results:

Sample A:	AVG(3) = 71.2 +/- 0.1 % water
Sample B:	AVG(3) = 53.1 +/- 0.1 % water
Sample C:	AVG(3) = 81.8 +/- 0.2 % water

Settings:	701 KF Titrino
	>titration parameters
	extr.time 5 s
	stop crit.: drift
	stop drift 20 uL/min
	>preselections
	conditioning: on
	req.smpl size: on
	report: full