

KF Application Note No. K- 6

Title: Water in ointments

Summary: The water content of ointments is determined according to Karl Fischer. Because of their high water and fat content the samples are prediluted with a 1 : 1 mixture of chloroform and methanol.

Sample: Two ointments

Sample Preparation: Weigh exactly ca. 1 g sample into a septum flask, add ca. 50 mL solvent mixture (also weighed) and shake strongly for 10 min. 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: Ointment A: AVG(5) = 48.86 +/- 0.06 % water
Ointment B: AVG(5) = 34.59 +/- 0.04 % water

Settings:	701 KF Titrino
	>titration parameters
	extr.time 0 s
	stop crit.: drift
	stop drift 25 uL/min
	>preselections
	conditioning: on
	req.smpl size: on
	report: full