

KF Application Note No. K- 41

Title: Water in liquid ammonia

Summary: Determination of the water content of liquid ammonia according to Karl Fischer after absorption of the water in ethylene glycol.

Sample: Liquid ammonia

Sample Preparation: Cool down 10 mL dry ethylene glycol in a suitable vessel to ca. -80 °C. Add about 25 ... 50 mL liquid ammonia, mix and allow the ammonia to evaporate while the system reaches room temperature.

Instruments and Accessories: 737 KF Coulometer, cell without diaphragm, 703 Titration Stand, printer

Analysis: Fill about 100 mL Coulomat AG into the cell and condition it until the drift is steady and below 10 µg/min. Add ca. 5 mL of the ethylene glycol to the cell using a syringe (determine the exact sample mass by difference weighing) and start the automatic determination. Carry out a blank determination of the ethylene glycol in the same way.

Reagents: Hydranal Coulomat AG (Riedel-de Haën)

Results: Ca. 100 ppm water

Settings: 737 KF Coulometer

smpl.req:	on
d.start	20 µg/min
extr.	0 s
stop drift:	auto
delay time	3 s
report:	full