KF Application Note No. K- 3

Title:	**Water in ammonium and potassium peroxodisulphate (persulphates)**

***Summary*:**	The water content of ammonium and potassium peroxodisulphate is determined according to Karl Fischer using two-component reagents. To prevent unwanted side reactions the determinations are carried out at -20 °C. Because the potassium salt is insoluble in the solvent, a high-frequency mixer is used to disintegrate the salt particles.

Sample:	Ammonium and potassium peroxodisulphate

Sample Preparation:	none

Instruments and Accessories:	701 KF Titrino or 720 KFS Titrino, 703 Titration Stand, printer, Polytron PT 1200 Disintegrator, low temperature circulation system

Analysis:	Wait for a steady drift below 6 uL/min, then add ca. 1 ... 1.5 g sample using a glass weighing spoon. An extraction time of 2 min with intensive stirring (Polytron PT 1200, speed «3») has been used for the automatic determination. **Reagents:** Solvent: 50% formamide + 50% Hydranal Solvent (Riedel-de Haën) Titrant: Hydranal Titrant 5 (Riedel-de Haën)

Results:	$(NH_4)_2S_2O_8$:	AVG(5) = 377 +/- 41 ppm water
	$K_2S_2O_8$:	AVG(5) = 419 +/- 28 ppm water

Settings:	701 KF Titrino	
	>titration parameters	
	extr.time	120 s
	stop crit.:	drift
	stop drift	20 uL/min
	>preselections	
	conditioning:	on
	req.smpl size:	on
	report:	full