

# KF Application Note No. K- 38

**Title:** Water in N-acetyl-L-cysteine

**Summary:** The water content of N-acetyl-L-cysteine is determined according to Karl Fischer using a special solvent mixture in order to prevent unwanted side reactions.

**Sample:** N-acetyl-L-cysteine

**Sample Preparation:** None, see under «Analysis»

**Instruments and Accessories:** 701 KF Titrino, 720 KFS Titrino or 758 KFD Titrino, 703 Titration Stand, printer

**Analysis:** Fill the solvent mixture mentioned below into the titration vessel and condition it. Add ca. 1 g sample and let it react with stirring for 5 min, then start the water determination.

**Reagents:**

Solvent: solvent mixture: 20 mL methanol + 5 mL Hydranal Buffer (Riedel-de Haën) + 1 g N-methyl-maleimide

Titrant: Hydranal Composite 5 (Riedel de Haen)

**Settings:** 701 KF Titrino

>titration parameters

|            |           |
|------------|-----------|
| extr.time  | -300 s    |
| stop crit: | drift     |
| stop drift | 20 uL/min |

>preselections

|                |      |
|----------------|------|
| conditioning:  | on   |
| req.smpl size: | on   |
| report:        | full |