

Application Memo**Water Content of Amine (2) [Aromatic Amine (2)]**

Industry	:	Organic Chemical
Instrument	:	Karl Fischer Moisture Titrator
Measurement method	:	Volumetric Titration (Direct Method)
Standards	:	JIS K 0113 ASTM E 203 ISO 760

1. Overview

Moisture titration using Karl Fischer reagent is popularly practiced water determination worldwide as the most reliable method. The procedure is adopted in many official standards as test method specified in ISO, ASTM, DIN, BS and JIS.

Here in this application, water content of side reactive aromatic amine (2) is determined by volumetric titration according to JIS K 0113-2005 as quoted below. We use KEMAQUA KET solvent as extracting medium.

The samples we have tested this time are as follows:
N-Ethylaniline/o-Toluidine/p-Anisidine/N,N-Dimethyl-p-toluidine.

2. Apparatus

Main unit : Karl Fischer moisture titration volumetric system
Electrode : Twin platinum electrode for KF titration

3. Reagents

Titrant : KEMAQUA TR-3 (Kyoto Electronics)
Solvent : KEMAQUA KET (for ketone) (Kyoto Electronics)

4. Example**— Measurement results —**

Sample name	Sample size g	Extracting medium	Water content	
			mg	%
N-Ethylaniline	0.93	KET	0.58	0.06
o-Toluidine	1.56	KET	3.26	0.21
p-Anisidine	1.50	KET	0.79	0.05
N,N-Dimethyl-p-toluidine	0.64	KET	0.37	0.06

Please feel free to contact us for any further information.
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Overseas Sales & Marketing Sect.
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