

## Application Memo

# Water Content of Oil with Thiol

Industry	:	Petrochemicals
Instrument	:	Karl Fischer Moisture Titrator
Measurement method	:	Volumetric titration /Direct method
Standards	:	JIS K 0113, JIS K 0068, JIS K 2275 ASTM E 203, ASTM D 1744, 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.

The test conducted this time is an example of volumetric moisture titration according to JIS K-2275-1996 for measurement of water content in oil with thiol.

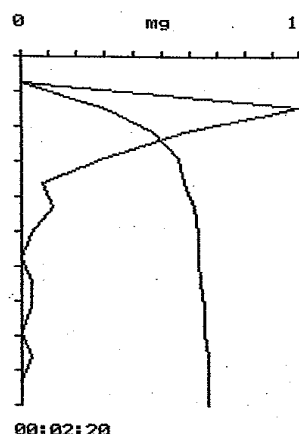
## 2. Apparatus

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

## 3. Reagents

Reagent	:	Hydranal Composit 2 (f= 1.1872mg/mL) (Riedel de Haen)
Solvent	:	Extracting medium CM(for oils) (Hayashi Chemicals)
Additive	:	Hydranal buffer (RdH), N-Ethylmaleymide

## 4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titration (mL)	Moisture (ppm)
1	4.7387	0.560	101.46
2	4.0762	0.525	107.77
3	4.3791	0.535	103.03
Average			104.09
SD			3.29
RSD(%)			3.16

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