

## Application Memo

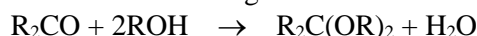
# Water Determination in Ketones(5) [Methyl Ethyl Ketone Peroxide]

Industry	Organic chemical industry
Instrument	Karl Fischer moisture titrator
Measurement method	Volumetric titration (Direct Method)
Standards	JIS K 0113, ASTM E 203, ISO 760

## 1. Overview

Moisture titration with Karl Fischer reagent is the most reliable moisture measurement method in the world. The procedure is adopted in many official standards as test method specified in ISO, ASTM, DIN, BS and JIS.

Here in this application, we measure water content in the ketone by direct method of KF titration according to JIS K 0113. Methyl ethyl ketone peroxide react with alcohols like methanol and undergo side reaction resulting in forming water.



Usually such side reaction can be prevented by titrating with the titrant after dissolving them in the solvent with the buffer as follows.

## 2. Apparatus

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

## 3. Reagents

Titrant	HYDRANAL™ Composite 5
Solvent	HAYASHI™ Solvent CE HYDRANAL™ Buffer for Acids

## 4. Example

—Measurement results—

Sample	Sample size (g)	Dehydrating solvent	Water content	
			(mg)	(%)
Methyl ethyl ketone peroxide	0.244	40mL of Dehydrating solvent CE + 2mL of Buffer	12.50	5.12

Please feel free to contact us for any further information.

< Contact > Kyoto Electronics Manufacturing Co., Ltd.  
Overseas Sales & Marketing Sect.

<http://www.kyoto-kem.com/en/contact/form.php>