

Application Memo

Water Content in Dairy Products

Industry	Food and beverage
Instrument	Karl Fischer moisture titrator
Measurement method	Volumetric titration (Direct method)
Standards	JIS K0113, ASTM E203, 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 dairy products by direct method of KF titration according to JIS K 0113. These samples which are hard to dissolve may be dispersed in the solvent, but measurement can be performed without problem.

2. Apparatus

Main unit	Karl Fischer moisture titration volumetric system Heat extractor for sugar samples
Electrode	Twin platinum electrode

3. Reagents

Titrant	KEMAQUA titrant TR-5
Solvent	KEMAQUA solvent FAT for oil and fats

4. Example

—Measurement results—

Sample name	Sample size (g)	Water content	
		(mg)	(%)
Butter	0.1194	17.6005	14.74
Powder milk	0.5080	17.4033	3.43
Powder cheese	0.1402	19.2560	13.73

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