

Application Memo

Alkalinity of AdBlue®

Industry	Chemicals
Instrument	Automatic potentiometric titrator
Measurement method	Potentiometric titration / Neutralization titration
Standards	ISO 22241, JIS K2247

1. Overview

Alkalinity of AdBlue® is determined based on “ISO 22241 Diesel engines - NOx reduction agent AUS 32 -. Alkalinity is expressed as a percentage by mass of ammonia. A sample is diluted with pure water, and then potentiometrically titrated with 0.01 mol/L hydrochloric acid. The point at pH 5.70 is regarded as the endpoint. The alkalinity of the sample is calculated from the volume of hydrochloric acid consumed to titrate the sample to the endpoint.

2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Combined glass electrode (Internal solution: 3.3 mol/L potassium chloride solution)

3. Reagents

Titrant	0.01 mol/L hydrochloric acid
Solvent	Pure water

4. Example

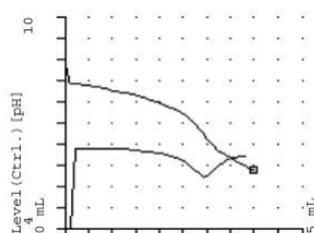


Fig. 1 Titration curve

—Titration curve—

—Measurement results—			
	Sample (g)	Titer (mL)	Alkalinity (mass%)
1	9.9885	3.9938	0.0069
2	10.0012	3.9463	0.0068
Average			0.0069

Please feel free to contact us for any further information.
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