

KES

Analysis of Cetane Number
Improve of Diesel Fuel Oils

KES T – M026

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1. Scope of application

This standard shall prescribe method for quantitative analysis alkyl nitrate and nitrate used as cetane number elevation in diesel fuel.

2. Alkyl nitrate

2.1 Outline

This method is quantitative analysis for alkyl nitrate in the range of 0.03 ~ 0.3 % by spectro photometer.

2.2 Interference

Components interfere in analysis alkyl nitrate are nitrate, ester, inorganic- nitrate ion, nitrogen oxide.

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2.3 Equipment

- (1) Absorbing set
- (2) Dispersion funnel : 125 ml size and TFE-fluorine carbon cab
- (3) Shaking machine : 250 vibration / min
- (4) Spectro photometer : Absorbing wave length 452 ± 5 nm
- (5) Flask volume : 10 ml, 100 ml
- (6) Pipette capacity : 1 ml, 3 ml, 4 ml, 10 ml
- (7) Buret : 10 ml

2.4 Reagent

- (1) Degree of purity : More than 1 level grade sample
- (2) Distilled water
- (3) Acetic acid
- (4) Alkyl nitrate