KES

Analysis of Manganese for Gasoline

KES T – M025

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1. Scope of application

This standard shall prescribe analysis of quantitative consistency of manganese of the range from 0.25 mg / ℓ to 30 mg / ℓ in gasoline .

Besides, this standard shall be able to be applied to the sort of materials like gasoline.

2. Meaning

Methyl cyclo pentadienyl manganese tri carbony : M.MT was used as octane number elevation instead of lead in the early period of smokeless gasoline, however, nowadays U.S prohibits it because manganese cause speech defect

3. Summary of method

After treating gasoline sample with iodine solvent, dilute it with methyl iso buthylene ketone(MIBK).

Analyze manganese content with standard sample with atom-absorbing analysis while using air-acetylene flame at 279.5 mm

4. Equipment

(1) Atom-absorbing spectrometer

(2) Pipette : 1 mℓ content

(3) Micro pipette

5. Regent

(1) MIBK

(2) Iso octane

(3) Iodine solvent : Needed 100 mℓ with 5 g of iodine dissolved in methyl alcohol

(4) Standard Original sum of manganese (1 mg / mℓ)

(5) Standard solvent of manganese : Take 1 mℓ standard solvent of manganese with

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