

KES

**Analysis of Molybdenum
for Lubricating Oils**

KES T – M170

(EST.) 1989 – 07 – 11

Contents

- 1. Scope of Application**
- 2. Apparatus and Reagent**
- 3. Analysis Condition**
- 4. Analysis Method**
- 5. Calculation**
- 6. Report**
- Additional Rule**



1. Scope of Application

This standard shall specify the method of analyzing standard quantity by atomic extinction analyzer for molybdenum (Mo), which is applied to the lubricating oils as a super-pressure inserting item and oily-nature improving item.

2. Apparatus and Reagent

- (1) Atomic extinction analyzer
- (2) Methyl Isobutyl Ketone
- (3) Xylene

3. Analysis Condition

- (1) Wavelength : 3133 nm
- (2) Size of flame : Fuel Rich
- (3) Combustion gas : N_2O / C_2H_2 or Air / C_2H_2

4. Analysis Method

- (1) The specimen is mixed by shaking and gathered with volume 100 mL of flask.

At this moment, the quantity of specimen is adjusted and its volume is recorded according to the inserted quantity of molybdenum in the specimen.

Two specimens for test are manufactured with the same method.

- (2) Fill up the volume flask, which gathered specimen, to indication line with methyl isobutyl ketone or xylene and dilute it.

The official sample is manufacture with the same method.

- (3) Extinction degree is measured by spraying the specimen solution to the atomic extinction analyzer established on Clause 3. The extinction degree of official sample is measured with the same method.