



DRAFT TANZANIA STANDARD

Petroleum Products-Determination of sulfur content - Wavelength-dispersive X-ray fluorescence spectrometry

TANZANIA BUREAU OF STANDARDS

National foreword

The Tanzania Bureau of Standards is the statutory National standards body for Tanzania, established under the Act.No.3 of 1975, amended by Act.No.2 of 2009.

This Draft Tanzania Standard is being adopted by Petroleum and petroleum products Technical Committee under the supervision of the Chemicals Divisional Standards Committee.

This draft Tanzania Standard is the identical adoption of ISO 14596:2007 Petroleum Products-Determination of sulfur content - Wavelength-dispersive X-ray fluorescence spectrometry

The text of the International standard is hereby being recommended for approval without deviation for publication as draft Tanzania standard.

Terminology and conventions

Some terminologies and certain conventions are not identical with those used as Tanzania standards; attention is drawn especially to the following: -

The comma has been used as a decimal marker for metric dimensions. In Tanzania Standards, its current practice to use full point on the baseline as the decimal marker.

Where the words "International Standard(s)" appear, referring to this standard they should read "Tanzania Standard".

Scope

This International Standard specifies a method for the determination of the sulfur content of liquid petroleum products, additives for petroleum products, and semi-solid and solid petroleum products that are either liquefied by moderate heating or soluble in organic solvents (see 4.1) of negligible or accurately known sulfur content. The method is applicable to products or additives having sulfur contents in the range 0,001 % (m/m) to 2,50 % (m/m); higher contents can be determined by appropriate dilution. Other elements do not interfere at concentrations anticipated in the materials subject to this analysis.

NOTE for the purposes of this International Standard, the term "% (m/m)" is used to represent the mass fraction of a material.

High concentrations of phosphorus or chlorine [typically above 3 % (m/m)] can cause bias in the sulfur result by absorbing Zr-La and S-K α to different extents. It is necessary in these cases to carry out studies to determine whether this potential interference is significant.

When larger amounts of molybdenum are present (typically above 50 mg/kg to 100 mg/kg), increased background radiation and spectral overlap with the sulfur signal can occur. It is necessary in these cases to inspect the relevant spectral regions, for example, to investigate the significance of this potential source of bias.