

U. S. Department of Commerce
Alexander B. Trowbridge,

Secretary

National Bureau of Standards
A. V. Astin, Director

Certificate of Analysis

Standard Reference Material 1621

Sulfur In Residual Fuel Oil

Sulfur Content.....1.05±0.02 weight percent

This Standard Reference Material is intended as an analytical standard in the determination of sulfur in residual fuel oil. It is a commercially available oil having the following inspection properties which are supplied for identification only: gravity, 22.6° API; flash point, 136 °F; furol viscosity at 122 °F, 21 seconds; pour point, 40 °F; Ramsbottom carbon residue, 3.3 percent; ash, 0.02 percent; water, not detected; and sediment 0.01 percent.

Sulfur was determined gravimetrically as barium sulfate after combustion in a Parr Oxygen Bomb using 1-g samples. The method used is similar to ASTM Method D-129. It differs only in that any iron present is removed with ammonium hydroxide before the precipitation of the sulfur as barium sulfate. The uncertainty shown represents the 95-percent confidence limit of the mean based on 30 determinations and allowances for known sources of possible error.

The oil sample was supplied by the Esso Research and Engineering Company of Linden, New Jersey. Sulfur analyses were performed by B. S. Carpenter, R. A. Paulson, and W. P. Schmidt of the Microanalysis Section.

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W. Wayne Meinke, Chief
Office of Standard Reference Materials