

Second edition
2009-02-01

Petroleum products — Total sediment in residual fuel oils —

Part 2: Determination using standard procedures for ageing

Produits pétroliers — Insolubles existants dans les fuel-oils résiduels —

Partie 2: Détermination à l'aide de méthodes de vieillissement de référence



Reference number
ISO 10307-2:2009(E)

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Published in Switzerland

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Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10307-2 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

This second edition cancels and replaces the first edition (ISO 10307-2:1993), which has been technically revised.

ISO 10307 consists of the following parts, under the general title *Petroleum products — Total sediment in residual fuel oils*:

- *Part 1: Determination by hot filtration*
- *Part 2: Determination using standard procedures for ageing*

Introduction

Experience has shown that the precipitation of asphaltenes from a residual fuel oil in the form of sediment can occur during storage and handling. Such sediment can cause severe difficulties, and in extreme cases can render the fuel unfit for use. Once out of solution, it is extremely difficult to reprecipitate the asphaltenes into their original state.

Fuel pre-treatment designed to accelerate the ageing/sedimentation process, followed by filtration, is a well-established technique for testing whether sediment from residual fuel oils will precipitate during storage and handling. This could involve thermal ageing (heating to a specified temperature for a specified time) or chemical ageing (addition of a specified amount of a normal alkane to test whether the balance between the required aromaticity of the asphaltenes and the available aromaticity of the oil phase is disturbed to the extent that asphaltene precipitation occurs).

A means of predicting the presence of a reserve of stability to sedimentation in residual fuel oil during storage and handling is thus a useful tool in the petroleum products industry.