
Draft Jamaican Standard

Method of test

for

Sulfated ash from lubricating oils and additives



BUREAU OF STANDARDS JAMAICA

NON OBJECTION PERIOD: 21 April 2024 to 20 May 2024

Draft Jamaican Standard

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DJS ASTM D874-23: 2024

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Jamaican Standards establish requirements in relation to commodities, processes, and practices, but not purport to include all the necessary provisions of a contract.

The attention of those using this standard specification is called to the necessity of complying with any relevant legislation.

Amendments

No.	Date of Issue	Remarks	Entered by and date

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National Foreword

This standard is an adoption and is identical to **ASTM D874: 2023** Sulfated ash from lubricating oils and additives published by ASTM International.

Scope of the Standard

1.1 This test method covers the determination of the sulfated ash from unused lubricating oils containing additives and from additive concentrates used in compounding. These additives usually contain one or more of the following metals: barium, calcium, magnesium, zinc, potassium, sodium, and tin. The elements sulfur, phosphorus, and chlorine can also be present in combined form.

1.2 Application of this test method to sulfated ash levels below 0.02 % by mass is restricted to oils containing ashless additives. The lower limit of the test method is 0.005 % by mass sulfated ash.

Note 1—This test method is not intended for the analysis of used engine oils or oils containing lead. Neither is it recommended for the analysis of nonadditive lubricating oils, for which Test Method [D482](#) can be used.

Note 2—There is evidence that magnesium does not react the same as other alkali metals in this test. If magnesium additives are present, the data is interpreted with caution.

Note 3—There is evidence that samples containing molybdenum can give low results because molybdenum compounds are not fully recovered at the temperature of ashing.

1.3 Fatty acid methyl ester (FAME) conforming to EN 14213 and EN 14214, when tested using this test method, were shown to meet its precision.

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

Where the words 'International Standard' appear, referring to this standard, they should be read as 'Jamaican Standard'.

Where reference is made to informative and normative annexes the following definitions should be noted:

- Informative Annex – gives additional information intended to assist in the understanding or use of the document. They do not contain requirements.
- Normative Annex – gives provisions additional to those in the body of a document. They contain requirements.

Users should note that all standards undergo revision from time to time and that any reference made herein to any standard implies its latest edition, unless otherwise stated.

This standard is voluntary.

Acknowledgement

Acknowledgement is made to the ASTM International for permission to adopt **ASTM D874: 2023**.