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**Petroleum products and lubricants —  
Determination of water washout  
characteristics of lubricating greases**

*Produits pétroliers et lubrifiants — Détermination de la résistance  
au délavage à l'eau des graisses lubrifiantes*



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## Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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International Standard ISO 11009 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

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# Petroleum products and lubricants — Determination of water washout characteristics of lubricating greases

**WARNING** — The use of this International Standard may involve hazardous materials, operations and equipment. This International Standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

## 1 Scope

This International Standard specifies a method for evaluating the resistance of a lubricating grease to washout by water from a bearing, when tested at 38 °C and 79 °C under specified laboratory conditions.

It is not to be considered the equivalent of service evaluation tests.

## 2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For a dated reference, subsequent amendments to, or revisions of, the publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For an undated reference, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

## 3 Principle

The grease is packed in a ball bearing. The bearing is then inserted in a housing with specified clearances, and rotated at  $63 \text{ rad/s} \pm 3 \text{ rad/s}$ . Water, controlled at 38 °C or 79 °C, impinges on the bearing housing at a rate of  $5 \text{ ml/s} \pm 0,5 \text{ ml/s}$ . The amount of grease washed out in 60 min is taken as a measure of the resistance of the grease to water washout.

## 4 Reagents and materials

**4.1 Water**, conforming to the requirements of grade 3 of ISO 3696.

**4.2 Cleaning solvent**, consisting of a low sulfur, low aromatic, low volatility hydrocarbon.

**NOTE** White spirit according to British Standard BS 245 [1] or mineral spirit according to ASTM D235 [2] (all classes) are suitable.