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Petroleum products — Equivalency of test method determining the same property —

Part 100: Background and principle of the comparison and the evaluation of equivalency

Produits pétroliers — Équivalence des méthodes d'essai déterminant la même propriété —

Partie 100: Fondement et principe de la comparaison et de l'évaluation de l'équivalence

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 28, *Petroleum products and related products of synthetic or biological origin.*

A list of the parts of ISO/TR 19686 can be found on the ISO website.

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Introduction

In 2010 ISO/TC 28 established a working group to investigate the development of test method equivalency tables. This proposal resulted from the discussion about identities, equivalences or differences in test methods related to fuels. It was concluded that a more structured approach would be useful.

The task of determining equivalency appeared to be a difficult and complex one; it was therefore decided that each property would be taken into account in turn and addressed in separate Technical Reports. In 2014 ISO/TC 28 agreed that a base document would be developed to show how the experts effectively compared the test method standards and evaluated their equivalency. This document gives that guidance.

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Petroleum products — Equivalency of test method determining the same property —

Part 100: Background and principle of the comparison and the evaluation of equivalency

1 Scope

This document describes the procedure for evaluation in order to determine the equivalency of test methods used on a global scale in quality specifications of petroleum products, lubricants, liquid fuels and gaseous fuels for transportation purposes. The result of the assessment on each property is presented in a separate part of ISO/TR 19686. This document is intended to guide laboratories that use one part of ISO/TR 19686 and wish to know if they can also use other parts.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 Comparison

4.1 Reasons for divergence

When compared test methods are originally based on the same document(s), then at the time of first publication these methods may be designated “identical”. However, if the derived methods are used in different regional, legislative and/or technical environments, they will diverge over time due to independent revision; therefore the designation “identical” will slowly move towards “equivalent” or even to “different”.

4.2 Equivalency

The designations “identical”, “equivalent” or “different” can be factored into a set of important analytical parameters which do affect applicability, results and precision as follows:

a) test method scope;

   1) applicability to specific product groups,

   2) measurement ranges;

b) interferences (matrix effects/disturbances);

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