

INTERNATIONAL STANDARD

ISO
3839

Second edition
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Petroleum products — Determination of bromine number of distillates and aliphatic olefins — Electrometric method

*Produits pétroliers — Détermination de l'indice de brome de distillats et
d'oléfines aliphatiques — Méthode électrométrique*

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Reference number
ISO 3839:1996(E)

ISO 3839:1996(E)**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.

International Standard ISO 3839 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

This second edition cancels and replaces the first edition (ISO 3839:1978), which has been technically revised.

Annex A of this International Standard is for information only.

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Petroleum products — Determination of bromine number of distillates and aliphatic olefins — Electrometric method

WARNING — The use of this International Standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this 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 the determination of the bromine number of the following materials:

- a) petroleum distillates that are substantially free of material lighter than 2-methylpropane, and that have 90 % (V/V) (i.e. volume fraction 90 %) distillation recovery temperatures under 327 °C. The method is generally applicable to gasolines (including leaded, unleaded and oxygenated fuels), kerosines and distillates in the gas oil range that fall within the following limits:

90 % (V/V) recovery distillation temperature (ISO 3405)	Bromine number, max. (see note 1)
Under 205 °C	175
205 °C to 327 °C	10

- b) commercial olefins that are essentially mixtures of aliphatic monoolefins and that fall within the range of 95 to 165 bromine number (see note 1).

The method has been found suitable for such materials as commercial propene trimer and tetramer, butene dimer, and mixed nonenes, octenes and heptenes. The method is not suitable for normal alpha-olefins.

NOTES

- 1 These limits are imposed since the precision of the method has been determined only up to or within the range of these bromine numbers.
- 2 The value of the bromine number is an indication of the quantity of bromine-reactive constituents, not an identification of constituents. Annex A and table A.1 give information related to the use of this International Standard as a measure of olefinic unsaturation.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the