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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 11135-1989

Replacing GB/T 11135-1989

**Standard test method for bromine numbers of petroleum
distillates and commercial aliphatic olefins by electrometric
titration**

(English Translation)

Issued on: January 1, 1970

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Issued by: Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 11135-1989 "Petroleum distillates and commercial aliphatic olefins - Determination of bromine number (potentiometric titration)", and GB/T 11135-1989 main technical changes compared as follows.

--- Increased gasoline suitable types of instructions; the determination of the upper limit of the 90% distillation temperature of less than 205 °C petroleum fraction by "100gBr /100g "to" 175g/100g "(see Chapter 1);

--- Given when bromine value is less than 1.0g/100g and 0.5g/100g, sample the applicable method (see Chapter 1);

--- Delete the words "This standard does not apply to added alcohols, ketones, ethers and amines additive oil" content (see the 1989 edition of the first chapter);

--- To increase the content of the normative references (see Chapter 2);

--- Instrument section "ST (dead stop point) type titrator" to "Titrator"; and the elimination of GB/T 11135-1989 Standard ST (dead stop point) type titrator circuit diagram (see 61, 1989 version 5.1.);

--- Bromide - potassium bromate standard solution was added during the standard volumetric accuracy by the "5mL ± 0.05mL" to "5mL ± 0.01mL" (see 7.4);

--- Starch solution preparation process is not added mercuric iodide reagent (see 78, 1989 version 7.3.);

--- Added "1,1,1-trichloroethane, methylene chloride instead of" content (see 7.12);

--- Increased cyclohexene and diisobutene reagent purification methods (see Chapter 8);

--- Precision numerical or algebraic representation are expressed, the abolition of graphics content; while increasing the deviation of the contents (see Chapter 11, Chapter 10, 1989 edition);

--- Remove the "Report" Content section (see the 1989 version of Chapter 11);

--- Increase in Appendix A (normative) "was determined by potentiometric titration of bromine value results";

--- Deleted the relevant content in 1989 edition Appendix A to Fahrenheit units as shown in Table A.1, Table A.2, Figure A.2, Figure A.4;

And the contents of the 1989 version of Appendix A to Appendix B (see Appendix B, 1989 edition of Appendix A).

This standard uses redrafted law revision adopted ASTM D1159-2007 "petroleum distillates and commercial aliphatic olefins - Determination of bromine number Potentiometric titration." the main difference between standard and ASTM D1159-2007 and for the following reasons.

--- This standard uses SI units only, remove Fahrenheit ASTM D1159-2007 Appendix B used in the table Related content shown to conform to our standard rules for preparation;

--- Chapter 2 normative references cited in our respective national standards and industry standards for ease of use.

This standard by the National Standardization Technical Committee on products and lubricant oil (SAC/TC280) proposed.

This standard by the National Standardization Technical Committee of petroleum products lubricants oil and lubricants and fuels Technical Committee (SAC/TC280/SC1) centralized.

This standard was drafted. China Petroleum & Chemical Corporation Research Institute of Petroleum.

Drafters of this standard. Ho Pei, Gao Ping.

This standard replaces the standards previously issued as follows.

--- GB/T 11135-1989.

Determination of petroleum distillates and commercial aliphatic olefins bromine value Potentiometric titration Warning. The application of this standard may involve some hazardous materials, operations and equipment, but not for all security related thereto Issues recommendations. Users Before using this standard has the responsibility to develop appropriate security and protection measures, and determine the relevant regulatory restrictions applicable Versatility.

1 Scope

This standard specifies the determination of petroleum distillates and commercial aliphatic olefins bromine number by potentiometric titration method.

This standard applies to the following sample bromine value determination.

a) 90% distillation temperature (using GB/T 6536 Determination) at 327 °C or less, and does not contain components lighter than isobutane petroleum fractions, such as. petrol (including leaded petrol, unleaded petrol and fuel oxygenates), kerosene and meet all conditions of Table 1 of distillate;

Table 1 measuring range petroleum fractions bromine value

90% distillation temperature/°C Max bromine/(g/100g)

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 6536 Petroleum products - Determination of distillation characteristics at atmospheric pressure GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD) GB/T 11136 Petroleum hydrocarbon bromine index assay (potentiometric titration) SH/T 0630 Petroleum products Bromine, index assay (power law) SH/T 1551 Determination of bromine index aromatics coulometric titration SH/T 1767 Industrial Aromatic bromine index of potentiometric titration