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

GB/T 1815-2019

Replacing GB/T 1815-1997

**Determination for the bromine number and bromine index of
benzole products**

苯类产品溴价和溴指数的测定

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 1815-1997 "Method for determination of bromine price of benzene products". This standard is mainly changed compared with GB/T 1815-1997. The following is as follows:

- Added warnings;
 - Revised the scope to increase the petroleum benzene, petroleum toluene, petroleum mixed xylene produced by the catalytic reforming process of petroleum fractions (see Chapter 1, see Chapter 1 of the.1997 edition);
 - Revised the normative reference document (see Chapter 2, see Chapter 2 of the.1997 edition);
 - Increased bromine and bromine index definitions (see Chapter 3);
 - Revised the preparation and preparation of the sample (see Chapter 7, see Chapter 6 of the.1997 edition);
 - Increased method for determination of bromine index of benzene products (see Appendix A). This standard was proposed by the China Iron and Steel Association. This standard is under the jurisdiction of the National Coal Chemical Standardization Technical Committee (SAC/TC469). This standard was drafted. Angang Steel Co., Ltd., Dalian Honghe Petroleum Analysis Instrument Co., Ltd., Anshan Kexiang Instrumentation Co., Ltd. Company, Anshan Hansheng Metallurgical Equipment Co., Ltd., Metallurgical Industry Information Standards Institute. The main drafters of this standard. Zhang Mingming, Guan Yongyi, Mu Chunfeng, Wang Xiaonan, Pang Keliang, Shaoyang, Gao Le, Dong Xiaofeng, Bayan Gaole, Zhang Dapeng, Zhang Jingxi, Zheng Jingwu. The previous versions of the standards replaced by this standard are.
 - GB/T 1815-1997. Determination of bromine and bromine index of benzene products
- Warning

---Benzene products are volatile and toxic and hazardous substances. Operators should wear protective masks and other labor protection products in the fume hood. Internal operation.

1 Scope

GB/T 1815-2019 is the Chinese national standard on determination for the bromine number and bromine index of benzole products, in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 18 October 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2020. Classification: ICS 71.080, CCS G18. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the terms and definitions, principles, reagents, equipment and materials for the determination of bromine and bromine index of benzene products, and the adoption and preparation of samples. Preparation, test procedures, calculation of results and precision. This standard is applicable to coking benzene, coking toluene and petroleum fractions obtained by hydrogenation and rectification of crude benzene and light benzene recovered from coke oven gas. Determination of bromine and bromine index of petroleum benzene, petroleum toluene and petroleum mixed xylene produced by catalytic reforming process.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document. Preparation of

GB/T 601 chemical reagent standard titration solution

GB/T 1999 Sampling method for coking oil products

GB/T 4756 petroleum liquid manual sampling method

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Bromine number brominenumber The number of grams of bromine consumed when reacting with 100 mL of the sample under specified conditions is expressed in g/100 mL.

3.2 Bromine index bromineindex The number of milligrams of bromine consumed when reacting with 100 g of the sample under specified conditions is expressed in mg/100 g.

4 Principle

In the presence of an acidic medium, the unsaturated compound in the aromatic hydrocarbon reacts with bromine, and the excess bromine reacts with potassium iodide to form iodine, and then sulfur is used. Sodium sulfate was titrated to the end point. The results are expressed in grams (mg) of bromine consumed in 100 mL (100 g) of the sample.

5 Reagent

5.1 Bromine standard solution. $c(1/2Br_2) = 0.1\text{mol/L}$, prepared according to GB/T 601 regulations.

5.2 Sodium thiosulfate standard solution. $c(Na_2S_2O_3) = 0.1\text{mol/L}$, prepared according to GB/T 601 regulations.

5.3 Potassium iodide solution. 25 g of potassium iodide was dissolved in 100 mL of distilled water.

5.4 Sulfuric acid solution. 1.5.