

Translated English of Chinese Standard: GB/T31776-2015

www.ChineseStandard.net

Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 75.160.20
G 60

GB/T 31776-2015

**Determination Method of Methanol Content in
Methanol Gasoline for Motor Vehicles**

车用甲醇汽油中甲醇含量检测方法

GB/T 31776-2015 How to BUY & immediately GET a full-copy of this standard?

1. www.ChineseStandard.net;
2. Search --> Add to Cart --> Checkout (3-steps);
3. No action is required - Full-copy of this standard will be automatically & immediately delivered to your EMAIL address in 0~25 minutes.
4. Support: Sales@ChineseStandard.net. Wayne, Sales manager

Issued on: July 3, 2015

Implemented on: October 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of PRC.**

Table of Contents

Foreword.....	3
1 Scope	4
2 Normative References.....	4
3 Terms and Definitions.....	4
4 Principle	5
5 Apparatus.....	5
6 Reagents and Materials	5
7 Sampling	6
8 Test Procedures	6
9 Result Calculation	9
10 Allowable Difference.....	10

Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard was proposed by and under the jurisdiction of National Technical Committee for Standardization of Methanol-Ether Fuel (SAC/TC 414).

Drafting organizations of this Standard: National Coal and Coal Chemical Product Quality Supervision and Inspection Center, Shanxi Wharton Co., Ltd., Shanxi Alcohol and Ether Clean Fuel Technical Center, Shaanxi Yanchang Zhongli New Energy Co., Ltd., Beijing Xiongtaweiyue Energy Technology Co., Ltd., Kailuan Energy Chemical Company Limited, and Zhongrunyou New Energy Co., Ltd..

Chief drafting staffs of this Standard: Li Yanru, Wu Yuequ, Xu Ying, Chang Yonglong, Li Jingsheng, Wang Yongmiao, Cui Jianfang, Wang Julin, Zhang Fading, and Fan Shouwei.

Determination Method of Methanol Content in Methanol Gasoline for Motor Vehicles

Warning: personnel using this Standard shall have hands-on experience in formal laboratory. This Standard doesn't address all possible safety issues. Users shall assume the responsibilities to take appropriate safety and preventative measures, and ensure the compliance with the relevant national regulations.

1 Scope

This Standard specifies the terms and definitions, principle, apparatus, reagents and materials, sampling, test procedures, result calculation and allowable differences for the determination method of methanol content in methanol gasoline for motor vehicles.

This Standard is not applicable to the determination of methanol content (volume fraction) in the ethanol-free methanol gasoline for motor vehicles.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 4756 Method for Manual Sampling of Petroleum Liquids

GB/T 9722 Chemical Reagent - General Rules for the Gas Chromatography

GB 17930 Gasoline for Motor Vehicles

GB/T 22030 Blend stocks of Ethanol Gasoline for Motor Vehicles

3 Terms and Definitions

The following terms and definitions are applicable to this document.

3.1 Component oil

- 6.2 Absolute ethanol: chromatographically pure.
- 6.3 Component oil: conform to GB 17930 or GB/T 22030.
- 6.4 Carrier gas: nitrogen with purity no less than 99.99% (volume fraction).
- 6.5 Fuel gas: hydrogen with purity no less than 99.99% (volume fraction).
- 6.6 Air: air generator.
- 6.7 Separator-funnel: pear-shaped, 250mL.
- 6.8 Pipette: 50mL, 20mL, 10mL, 5mL, 1mL.
- 6.9 Measuring pipette: 10mL, sub-scale value 0.1mL.
- 6.10 Measuring pipette: 1mL, sub-scale value 0.01mL.
- 6.11 Preparation of chromatography column: inject the 60 mesh ~80 mesh Porapak T packed column into the chromatography column with length 1m, and inner diameter 3mm; gently shake during the adding process, so that the filling materials can be filled tightly; both ends of the column shall reserve 2cm, where the glass wool shall be filled, so that ensure the filling materials can't overflow.

Prior to use, conduct the aging operation against the column when the column box temperature is at 180°C till the instrument baseline is stable.

7 Sampling

- 7.1 Sampling as per the procedure stipulated in GB/T 4765, take 2L of sample for inspection and retention sample use.
- 7.2 Sample shall be stored at 0°C~5°C.
- 7.3 Before analysis, shake the sample thoroughly to see if the sample has significant phase separation. If so, discard the sample; re-sampling is required.

8 Test Procedures

8.1 Sample preparation

When analyzing, the sample, internal standard substance (6.2), distilled water and the container weighing the sample are required to be equilibrated at certain temperature.

8.2 Chromatographic analysis

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----