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

**中华人民共和国国家标准**

GB 338-2011

Replace GB 338-2004

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**Methanol for industrial use**

**工业用甲醇**

**Issued on December 05, 2011**

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**Issued by General Administration of Quality Supervision, Inspection  
and Quarantine of the People's Republic of China**

**Standardization Administration of the People's Republic of  
China**

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## Foreword

**Provisions in Chapter 6.1 of the Standard are mandatory, and the others are recommendatory.**

The Standard is drafted according to the rules given in GB/T 1.1-2009.

The Standard can substitute for the GB 338-2004 *Industrial Methanol*, and comparing with GB 338-2004, the main technical changes in the standard are as follows:

— Has modified the preparation method of the standard colorimetric solution used for the potassium permanganate time test (see Chapter 4.7, and Chapter 4.4 of Edition 2004);

— Has added the correction formula for the readings of the full immersion thermometer and the mercury barometer used in the boiling range determination method (see Annex C);

— Has modified the test method for the determination of ethanol content (see Chapter 4.14, Annex D, and Chapter 4.11 of Edition 2004);

— Has modified the factory inspection items (see Chapter 5.1, and Chapter 5.1 of Edition 2004).

The Standard is modified by using the method of redraft and adopting the American Society for Testing Materials standard ASTM D1152: 2006 *Methanol*. Comparing with ASTM D1152:2006, there are more adjustments on the structure. Annex A lists the Contrast List between chapter and article number in the Standard and ASTM D1152:2006. The technical differences and their reasons between the Standard and the ASTM D1152:2006 are as follows:

— Indicators are divided into superior products, first-class products and mass products (see Chapter 3.2). Which is determined based on the classification guideline of the relevant industrial products in China;

— Has added the water miscibility items and the ethanol content items (see Chapter 3.2). This is to strictly control the mass of products;

— The color scale, boiling range, acid or alkali and other indicators of the superior products are better than those specified in ASTM D1152: 2006 (see Chapter 3.2);

— In addition to the use of the method specified in the ASTM D1152: 2006 for the sulfuric acid washing test, other test methods all adopt the national standards for products testing method of China (see Chapter 4).

The Standard is proposed by China Petroleum and Chemical Industry Federation.

The Standard is under jurisdiction of Branch of Organic Chemicals of National Standardization Technical Committee of Chemical (SAC/TC 63/SC 2).

The Standard is drafted by: Sinopec Sichuan Vinylon Works Group

The units participating in drafting the Standard are: Shanghai Coking & Chemical Corporation, Shaanxi Yulin Natural Gas Chemical Industry Co., Ltd., Jiangsu SOPO (Group) Co., Ltd., Methanol Branch of Daqing Oilfield Chemicals Co., Ltd., Zhejiang Jinju Chemical Co., Ltd. and Guizhou Yihua Chemical Industry Co., Ltd.

Main drafters of the Standard are: Yan Hong, Pu Lijun, Li Bin, Zhai Li, Zhou Bing, Lu Jiayun, Zeng Yan, Zhai Xiaoxia, Wang Shumei, Ge Lixin, Zhang Xueyong, Lan Yuandong, Yang Hongmei.

The issuances of previous editions of the standards substituted by the Standard are as follows:

— GB 338—1964, GB 338—1976, GB 338—1985, GB 338—1992, GB 338—2004.

## Methanol for Industrial Use

### 1 Scope

The Standard specifies the requirements, test methods, inspection rules, marking, packaging, transportation, storage and safety of the methanol for industrial use.

The Standard applies to the methanol for industrial use compounded by coal, natural gas, light oil and heavy oil as the materials.

Molecular formula: CH<sub>4</sub>O

Relative molecular mass: 32.042 (according to the international relative atomic mass in 2007)

### 2 Normative references

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (including all corrections) or revisions made thereafter shall be applicable to this Standard.

GB 190 Packing symbol of dangerous goods

GB/T 601 Chemical reagent--Preparations of standard volumetric solutions

GB/T 603 Chemical reagent--Preparations of reagent solutions for use in test methods (GB/T 603-2002, ISO 6353-1: 1982, NEQ)

GB/T 3143 Color determination method of liquid chemicals (Hazen unit; Platinum-cobalt scale)

GB/T 4472 Determination of density and relative density for chemical products

GB/T 6283 Chemical products—Determination of water Karl-fischer method (general method) (GB/T 6283-2008, ISO 760: 1978, NEQ)

GB/T 6324.1 Test method of organic chemical products—Part 1: Water miscibility test of liquid organic chemical products

GB/T 6324.2 Test method of organic chemical products—Part 2: Determination of dry residue after evaporation on a water bath for volatile organic liquids (GB/T 6324.2-2004, ISO 759: 1981, MOD)

GB/T 6324.3-2011 Test method of organic chemical products—Part 3: Determination of permanganate-reducing substances

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