



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

GB 17930-2016

Gasoline for motor vehicles

车用汽油

Issued on: December 23, 2016

Implemented on: December 23, 2016

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

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Foreword

All the technical information of this standard is mandatory. This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB 17930-2013 "Gasoline for motor vehicles". As compared with GB 17930-2013, the main technical changes are as follows: - MODIFY the second paragraph of Chapter 1 "Scope" from "This standard is applicable to the motor vehicle gasoline composed of liquid hydrocarbons OR the liquid hydrocarbons and the performance improvement additives" to "This standard is applicable to the motor vehicle gasoline which is suitable for the ignition engine AND made of petroleum OR petroleum added with the performance improvement additive" (SEE Chapter 1; Chapter 1 of 2013 version); - DELETE the technical requirements and test methods of the motor vehicle gasoline (III) (SEE Table 1 of 2013 version); ADD the technical requirements for the motor vehicle gasoline at the stage VI, and DIVIDE it into the stage VIA and the stage VIB based on the different olefin content (See Table 3, Table 4); - In the vapor pressure requirements, ADD "When season changes, it is allowed for the filling station to have a 15-day replacement period" (SEE Table 1, Table 2, Table 3, Table 4, Table A.1 and Table A.2; Table 2, Table 3 and Table A.1 of 2013 version); - MODIFY the technical requirements for the sulfur content of mercaptan (V) of the motor vehicle gasoline (V) (SEE Table 2 and Table A.1; Table 3 and Table A.1 of 2013 version); - DELETE the requirements for the implementation of summer vapor pressure in Guangxi for the whole year, because Guangxi is the area to which the ethanol gasoline for motor vehicle is used (SEE Table 2, Table 3, Table 4, Table A.1 and Table A.2; Table 3 and Table A.1 of 2013 version); - MODIFY the Chapter 9 "Implementation of standard" (SEE Chapter 9; Chapter 9 of 2013 version); -

ADD Table A.2 (SEE Table A.2). This standard was proposed by the National Energy Administration. This standard shall be under the jurisdiction of the National Petroleum Products and Lubricants Standardization Technical Committee - Petrochemical and Lubricant Subcommittee (SAC/TC 280/SC 1). The drafting organizations of this standard. China Petroleum & Chemical Corporation Petrochemical Research Institute, China National Petroleum Corporation Refining and Chemical Branch, China National Petroleum Corporation Petrochemical Research Institute, China Petroleum Refining and Chemical Co., Ltd., China Automotive Research Center. The main drafters of this standard. Ni Bei, Long Jun, Li Wenle, Zhang Jianrong, Zhang Yan, Zhang Guoxiang, Guo Xin, Guo Hongsong, Liu Qian. This Standard replaces the standard previously issued as follows: - GB 17930-1999, GB 17930-2006, GB 17930-2011, GB 17930-2013. Gasoline for motor vehicles WARNING. Failure to comply with appropriate precautions may result in the risk of production, transportation, handling, storage and use of this product. This standard is not intended to advice on all safety issues related to this product. It is the responsibility of the user to adopt appropriate safety and precautions AND to ensure compliance with the conditions set forth in the relevant national regulations.

1 Scope

China's mandatory national standard for motor gasoline. It is the specification every litre sold in the country must meet, and its successive editions are the instrument by which China cut urban air pollution from vehicles. The limits that carry that weight are on sulfur, benzene, aromatics, olefins and vapour pressure. Sulfur is the decisive one and not for its own emissions: it poisons the catalyst in the three-way converter and the particulate and NOx aftertreatment behind it, so a vehicle designed for clean fuel and run on dirty fuel emits at the level of a vehicle with no aftertreatment at all - which is why the fuel standard and the vehicle emission standard have to advance together, and why this edition brought the national limit down to 10 parts per million. Benzene is limited as a carcinogen the driver breathes at the pump, and vapour pressure controls the evaporative losses that form ozone in summer. The standard specifies the terms and definitions, product classification, requirements and test methods, sampling, marking, packaging, transport, storage, safety and implementation for gasoline for spark ignition engines, made from petroleum or petroleum with performance improving additives.

This standard specifies the terms and definitions, product classification, requirements and test methods, sampling, marking, packaging, transportation and storage, safety and standard implementation of the gasoline for motor vehicles. This standard is applicable to the motor vehicle gasoline which is suitable for the ignition engine AND made of petroleum OR petroleum added with the performance improvement additive.

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 Standard.

GB 190 Labels for packages of dangerous goods

GB/T 259 Petroleum products - Determination of water-soluble acids and alkali

GB/T 260 Petroleum products - Determination of water

GB/T 503 Determination of the gasoline octane number - Test method for motor octane number

GB/T 511 Petroleum products and additives - Method for determination of mechanical admixtures

GB/T 1792 Determination of mercaptan sulfur in gasoline, kerosene, jet, and distillate fuels - Potentiometric titration

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Antiknock index It refers to 1/2 of the total of the research octane number (RON) and the motor octane number (MON).

4 Product classification

The gasoline (IV) for motor vehicles is, based on the research octane method, divided into 3 designations.

5 Requirements and test methods

5.1 Additives used in motor vehicle gasoline shall be free from recognizable adverse effects AND in an appropriate amount as recommended.

5.2 The technical requirements and test methods for the gasoline for motor vehicles are as shown in Table 1.

5.3 The technical requirements and test methods for the gasoline (V) of Number 89, 92 and 95 for motor vehicles are shown as in Table 2.

5.4 The technical requirements and test methods for gasoline (VIA) of Number 89, 92 and 95 AND the gasoline (VIB) for motor vehicles are as shown in Table 3 and Table 4, respectively. When the enterprise produces and sells the gasoline (VIA)/(VIB) of Number 98 for motor vehicles, its technical requirements shall comply with Table A.2.

6 Sampling

TAKE sample in accordance with GB/T 4756; TAKE 4 L of sample for inspection and reference. If the motor vehicle gasoline contains manganese, it shall take sample in the dark.

7 Marking, packaging, transportation and storage

7.1 The filling machine used to distribute the motor vehicle gasoline complying with the requirements of this standard to the user shall be clearly indicated of the product name, designation, and grade (IV, V, VIA, and VIB).

7.2 The gasoline for motor vehicle belongs to inflammable liquid, so its marking, packaging, transportation, storage, and handover acceptance shall be conducted in accordance with SH 0164, GB 30000.7-2013 and GB 190.

8 Safety

The gasoline for motor vehicle belongs to inflammable liquid, the hazard descriptions and precautions of which are as shown in Appendix D of GB 30000.7-2013.