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

GB/T 13941-2015

Replacing GB/T 13941-1992

Diphenylmethane diisocyanate

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 13941-1992 "diphenylmethane 4,4'-diisocyanate", compared with GB/T 13941-1992 The changes are as follows:

- Standard name is modified to diphenylmethane diisocyanate; - increased classification (see Chapter 3);
- increased the requirements of the MDI-50 grade (see Chapter 4);
- Elimination of qualified products, first grade and superior products (1992 version 3.1);
- increase the appearance, 2,4'-MDI content, 4,4'-MDI content requirements (see Table 4 in Table 2); - the freezing point to the crystallization point (see Chapter 4, Table 2,.1992, version 3.1);
- MDI-100 Cyclohexane insolubles reduced to 0.2% (see Chapter 4, Table 2,.1992 Edition 3.1); The method for measuring the chromaticity is changed from GB/T 3143-1982 to GB/T 605-2006 (see 5.2,.1992, 4.1); The method for the determination of MDI content is changed from chemical titration to capillary gas chromatography (see Appendix A); The method for the determination of cyclohexane insolubles increases the membrane method (see Appendix C);
- MDI-100 deterioration test to type test items (see 6.2,.1992 edition 5.4); - extended shelf life of solid MDI-100 products (see 7.4,.1992 6.4); - Increased shelf life of liquid MDI-100 and MDI-50 (see 7.4). This standard is proposed by the China Petroleum and Chemical Industry Association. This standard is under the jurisdiction of the National Plastics Standardization Technical Committee Polyurethane Plastics Subcommittee (SAC/TC15/SC8). This standard is responsible for drafting units. Wanhua Chemical Group Co., Ltd. This standard participates in the drafting unit. Dawn Chemical Research and Design Institute Co., Ltd., Gansu Yinguang Silver Chemical Co., Ltd., Shandong Granville New Materials Co., Ltd., Zhejiang Huafeng New Materials Co., Ltd. The main drafters of this standard. Chen Yifeng, Kong Ruifang, Mao Zhihong, Zou Shuzhen, Xu Yefeng, Meng Zhu, Jin Meijin, Shi Shuhui. This standard was first released in December.1992, this time for the

first revision. Diphenylmethane diisocyanate

1 Scope

GB/T 13941-2015 is the Chinese national standard on diphenylmethane diisocyanate, in the field of rubber and plastic industries. 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 31 December 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2016. Classification: ICS 83.040, CCS G32. 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 requirements of diphenylmethane diisocyanate (hereinafter referred to as MDI), test methods, inspection rules and signs, packaging, Transportation, storage and so on. This standard applies to aniline by condensation, phosgenation, separation, distillation of the MDI.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document. Chemical reagents - General methods for the determination of chromaticity of

GB/T 605-2006 General rules for sampling of chemical products GB/T General rules for sampling of solid chemical products GB/T General rules for sampling of liquid chemical products GB/T Method for determination of crystallization point of organic chemical products GB/T

GB/T 12009.2 Aromatic isocyanates for the production of plastic polyurethanes - Part 2. Determination of hydrolyzed chlorine

3 Classification

According to MDI products 4,4'-MDI content is divided into MDI-100, MDI-50 two grades, use in Table 1. Table 1 MDI product grades and uses Grade Key Indicator Use MDI-100 4,4'-MDI content $\geq 97.0\%$ Widely used in microporous elastomers, thermoplastic elastomers, casting elastomers, artificial leather, Synthetic leather, adhesives, coatings, sealants and the like MDI-50 4,4'-MDI content of 44.5% to 49.0% Can be widely used in high resilience foam, semi-rigid foam and microporous elastomer production, but also

extensive Used in the production of elastomers, adhesives, paints and sealants

4 Requirements

MDI technical indicators should be consistent with the provisions in Table 2.

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