

ICS 83.040.20

CCS G71



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

GB/T 21841-2019

Replacing GB/T 21841-2008

**Rubber antioxidant -
N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (6PPD)**

橡胶防老剂 N-1,3-二甲基丁基-N' -苯基对苯二胺 (6PPD)

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Standardization Administration of China**

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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 21841-2008 "Anti-aging agent 6PPD". Compared with GB/T 21841-2008, in addition to editorial changes, the main technical content changes are as follows:

--- Added CASRN (see Chapter 1);

--- Removed the technical grades in the technical requirements, modified the technical indicators of purity (see Table 1, Table 1 of the 2008 edition);

--- Added an informative appendix on safety (see Appendix A). This standard was proposed by the China Petroleum and Chemical Industry Federation. This standard is under the jurisdiction of the National Rubber and Rubber Products Standardization Technical Committee (SAC/TC35). This standard was drafted by Sinopec Group Nanjing Chemical Industry Co., Ltd., Shengao Chemical Technology Co., Ltd., Shandong Shangyi Chemical Co., Ltd. Limited company, Hebei Kemai New Material Technology Co., Ltd., Shandong Shengao Chemical Technology Co., Ltd. The main drafters of this standard are Lu Yumei, Du Jianguo, Li Wei, Li Fengwei. This standard was first published in 2008 and this is the first revision. Rubber anti-aging agent N-1,3-dimethylbutyl-N'-phenyl P-phenylenediamine (6PPD) Caution - Personnel using this standard should have practical experience in formal laboratory work. This standard does not indicate all possible safety questions. It is the responsibility of the user to take appropriate safety and health measures and to ensure compliance with the conditions set by the relevant national regulations.

1 Scope

GB/T 21841-2019 is the Chinese national standard on rubber antioxidant - n-1,3-dimethylbutyl-n'-phenyl-p-phenylenediamine (6ppd), 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 30 August 2019 by the State Administration for Market Regulation; Standardization Administration of China,

and has been in force since 1 July 2020. Classification: ICS 83.040.20, CCS G71. 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 technical requirements of the rubber antioxidant N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (referred to as rubber anti-aging agent 6PPD). Requirements, test methods, inspection rules, marking, packaging, transportation and storage. This standard applies to rubber anti-aging prepared by condensation reduction of 4-aminodiphenylamine and methyl isobutyl ketone in the presence of a catalyst. Agent 6PPD. Chemical name. N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine Molecular formula. C₁₈H₂₄N

2 Structure. Relative molecular mass. 268.40 (according to 2016 international relative atomic mass) CASRN. 793-24-8

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.

GB/T 191-2008 packaging storage and transportation icon

GB/T 6679 Solid Chemical Products Sampling General

GB/T 6682-2008 Analytical laboratory water specifications and test methods

GB/T 8170-2008 Numerical rounding rules and the representation and determination of limit values

GB/T 9722-2006 General Rules for Gas Chromatography of Chemical Reagents

GB/T 11409-2008 Rubber anti-aging agent, vulcanization accelerator test method

3 Technical requirements

The technical requirements for rubber anti-aging agent 6PPD should meet the requirements of Table 1.