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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/T 17592-2011

Replace GB/T 17592-2006

# Textiles—Determination of the banned azo colourants 纺织品 禁用偶氮燃料的测定

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Standardization Administration of the People's Republic of China

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#### Foreword

The standard is drafted in accordance with the rules set forth in GB/T 1.1-2009.

This standard is the revision to *Textiles* — *Determination of the Banned Azo Colourants* of GB/T 17592—2006. Compared with GB/T 17592-2006, the major technical changes are as follows:

— Normative reference documents GB/T 23344 *Textiles-Determination of 4* –*aminoazobenzene* is added. (See Chapter 2);

— The temperature-controlled ultrasonic generator has been deleted from Chapter 5(see 5.1 of 2005 version);

— The provisions of the pre-treatment of polyester product is deleted, as 6.1 Note (See 6.1 of 2006 version)

----- Preparation method of mixed standard working solution is added. (See 4.5.4);

— Footnote <sup>a</sup> is increased in Annex A and Note 2 is modified (See Annex A);

— Annex B is changed into informative Annex (See Annex B, Annex B of the 2006 edition);

— Liquid chromatogram of carcinogenic aromatic amine standards is increased. (See Annex C).

This Standard is proposed by China Textile Industry Association.

The standard is centralized by the basic branch of National Technical Committee of Textiles Standardization Administration of China (SAC/TC 209/SC 1).

This standard is drafted by: Shanghai Textile Research Institute, Textile Industry Standardization Institute.

Main drafters of this standard: Chen Yun, Zheng Yuying, Yang Haiying, Zhu Ying, Zhang Xiaoyan.

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The issuances of previous versions of the standard replaced by this standard are as follows:

\_\_\_\_\_GB/T 17592.1~17592.3—1998;

## Textiles—Determination of the banned azo colourants

WARNING — Persons using this Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

#### 1 Scope

This standard specifies the detection method of banned azo colourants that can decompose carcinogenic aromatic amines (see Annex A) in textile products.

This standard applies to all kinds of textile products after dyeing and finishing.

#### 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. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods

GB/T 23344 Textiles - Determination of 4-aminoazobenzene

#### **3** Principle

Deoxidate and split textile sample in citrate buffer solution medium with sodium dithionite to produce carcinogenic aromatic amines that may exist, extract aromatic amine in solution with a suitable liquid - liquid partition column, and after concentration, set volume with suitable organic solvent, determine by using gas chromatograph equipped with a mass selective detector. When necessary, select another one or more methods for isomers confirmation. Adopt high-performance liquid chromatograph equipped with diode array detector (HPLC / DAD) or gas chromatograph/mass spectrometer to quantify.



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