

FORMAT FOR SYNOPSIS OF INDIAN STANDARDS

Number and Title of the Indian Standard:

Doc TXD 07 (14184)

IS 17336 (Part 3):2019/ ISO 14362-3:2017 Textiles — Methods for determination of certain aromatic amines derived from azo colorants — Part 3: Detection of the use of certain azo colorants which may release 4-aminoazobenzene

Scope:

Azo colorants that are able to form 4-aminoazobenzene, generate under the conditions of ISO 14362-1, the amines aniline and 1,4-phenylenediamine. The presence of these 4-aminoazobenzene colorants cannot be reliably ascertained without additional information (e.g. the chemical structure of the colorant used) or without a special procedure.

This document is supplementary to ISO 14362-1 and describes a special procedure to detect the use, in commodities, of certain azo colorants, which may release 4-aminoazobenzene, and that are

- accessible to reducing agent without extraction, particularly concerning textiles made of cellulose and protein fibres (e.g. cotton, viscose, wool, silk), and
- accessible by extracting the fibres (e.g. polyester or imitation leather).

For certain fibre blends, in 9.3 and 9.4 (with and without extraction) may need to be applied.

The procedure also detects 4-aminoazobenzene (Solvent Yellow 1), which is already available as free amine in commodities without reducing pre-treatment.

The use of certain azo colorants, which may release, by reductive cleavage of their azo group(s), one or more of the other aromatic amines listed in the *Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) as regards Annex XVII*, except 4-aminoazobenzene, cannot be determined quantitatively with this method.

a) Salient features of content:

After selection of a coloured test specimen from the textile article, the test specimen is tested according to the method of the colorant extraction for disperse dyes and/or the method of the direct reduction for the other classes of colorants (pigments and/or dyes).

The textile sample or the residue of the sample extraction is treated with sodium dithionite in an alkaline solution at 40 °C in a closed vessel. 4-aminoazobenzene, which is released in the process, is transferred to a *t*-butyl methyl ether phase by means of liquid-liquid extraction. An aliquot of the *t*-butyl methyl ether phase is used for analysis. The detection and determination of 4-aminoazobenzene can be performed using chromatography.

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If 4-aminoazobenzene is detected by one chromatographic method, then confirmation shall be made using one or more alternative methods.

b) Types/Grades/Classes, if any covered in the standard: None