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## Textiles — Dyestuffs —

Part 1:

### General principles of testing coloured textiles for dyestuff identification

*Textiles — Colorants —*

*Partie 1: Principes généraux d'essais des textiles colorés pour l'identification des colorants*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

ISO 16373-1 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in collaboration with ISO Technical Committee TC 38, *Textiles*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 16373 consists of the following parts, under the general title *Textiles — Dyestuffs*:

- *Part 1: General principles of testing coloured textiles for dyestuff identification*
- *Part 2: General method for the determination of extractable dyestuffs including allergenic and carcinogenic dyestuffs (method using pyridine-water)*
- *Part 3: Method for determination of certain carcinogenic dyestuffs (method using triethylamine/methanol)*

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## Introduction

The ISO 16373- series deals with dyes used in textiles for qualification and quantification.

This part of ISO 16373 includes the definition of the classes of dyes, the description of some procedures to identify qualitatively the class of dyes used in textile material.

The other parts of ISO 16373 are related to the quantification of some dyes.

- The principle of the test method in ISO 16373-2 is based on the extraction using pyridine-water solution, which has been found to be the most efficient solution to extract a large range of dyes, including allergenic and carcinogenic dyes.
- The principle of the test method in ISO 16373-3 is based on the extraction using triethylamine-methanol solution. This solution has been found efficient to extract some dyes in some cases.

Additional information related to the recovery rates (to characterize the extraction efficiency) obtained from the application of ISO 16373-2 and ISO 16373-3 are summarized in [Annex B](#).

It is important to note that there are other test methods related to azo dyes, for which a reduction of the extracted azo dyes leads to the release of some aromatic amines to be detected and determined using chromatography (See Bibliography/Aromatic amines determination).