

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

(Not to be reproduced without permission of BIS or used as an Indian Standard)

भारतीय मानक मसौदा
जूते एवं जूते सामग्री में संभवतः मौजूद हानिकारक पदार्थ
भाग 1 विलायक निष्कर्षण के साथ थैलेट्स के निर्धारण
(IS 16915-1 का पहला पुनरीक्षण)

Draft Indian Standard

**Footwear — Critical Substances Potentially Present in Footwear and Footwear
Components**

Part 1 Determination of Phthalates with solvent extraction

(First Revision of IS 16915-1)

(ICS 61.060)

Footwear Sectional Committee, CHD 19

Last Date for Comments: 09-07-2024

Footwear Sectional Committee, CHD 19

NATIONAL FOREWORD

(Formal clause will be added later)

Phthalates are commonly used as plasticizers in polymers. Phthalates are controversial because high doses of many phthalates have shown hormonal activity in rodent studies. Studies on rodents involving large amounts of phthalates have shown damage to the liver, the kidneys, the lungs, and the developing testes. Hence, its use is prohibited in footwear and this standard prescribes a test method for determining the presence of phthalate compounds in footwear materials.

This standard was originally published in 2018 as an identical adoption of ISO 16181: 2011 under dual numbering. ISO 16181: 2011 was bifurcated into two parts i.e ISO 16181 (Part 1) Determination of Phthalates with solvent extraction' and ISO 16181 (Part 2) 'Determination of Phthalates without solvent extraction' in 2021. Hence, the Committee decided to undertake the revision of IS 16915 by adopting ISO 16181 (Part 1) as IS 16915 (Part 1) and

ISO 16181 (Part 2) as IS 16915 (Part 2). This Part 1 specifies a test method to determine the qualitative and quantitative presence of phthalate compounds (see Annex A) in footwear and footwear components.

In this revision following modifications have been done:

- a) Addition of number of phthalates from 7 to 26;
- b) Addition of new Clause 2 and Clause 3, and renumbering of subsequent clauses;
- c) Replacement of “n-hexane/acetone” with “toluene” and alternative “tetrahydrofuran” as extraction solution;
- d) Splitting of former Clause 3 into Clauses 5 and 6, with technical modification;
- e) Technical revision of Clauses 4 and 5;
- f) Deletion of 5.2.4;
- g) Addition of Clause 9;
- h) Addition of Annex D.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
<i>ISO 4787:2010, Laboratory glassware — Volumetric instruments — Methods for testing of capacity and for use</i>	<i>IS 18235 : 2023 — Laboratory glass and plastic ware — Volumetric instruments — Methods for testing of capacity and for use (first revision)</i>	Identical with ISO 4787: 2021

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (second revision)’..