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ISO 8518 : 2022
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BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

कार्यस्थल पर वायु — कणिका लेड और लेद के यौगिक ज्ञात करना - ज्वाला अथवा विघुततापीय परमाणु अवशोषण स्पेक्ट्रोस्कोपी विधि

(*IS 15309 का पहला पुनरीक्षण*)

Draft Indian Standard

Workplace Air — Determination of Particulate Lead and Lead Compounds — Flame or Electrothermal Atomic Absorption Spectrometric Method

(First Revision of IS 15309)

(ICS 13.040.30)

Air Quality Sectional Committee, CHD 35	**Last Date for Comments: 30th October 2024**

Air Quality Sectional Committee, CHD 35

NATIONAL FOREWORD

(*Formal clause shall be added later*)

The health of workers in many industries, for example, mining, metal refining, battery manufacture, construction, is at risk through exposure by inhalation of particulate lead and lead compounds. Industrial hygienists and other public health professionals need to determine the effectiveness of measures taken to control workers' exposure, and this is generally achieved by making workplace air measurements.

This standard was originally published in 2003 as an identical adoption of ISO 8518: 2001 under dual numbering. The first revision of this standard has been brought out in order to align it with the latest version of ISO 8518: 2022 In this revision, following modifications have been done

a) A new Annex B (informative) has been added concerning sampler wall deposits;
b) References and definitions have been updated;
c) Additional editorial changes have been made.

This document specifies flame and electrothermal atomic absorption spectrometric methods for the determination of the time-weighted average mass concentration of particulate lead and lead compounds in workplace air.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies 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 `IndianStandard'.

b) Comma (,) has been used as a decimal marker in the International Standard, while in Indian Standards, the currentpractice 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:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 3585, Borosilicate glass 3.3 — Properties	IS 18219 : 2023/ISO 3585:1998 — Borosilicate glass 3.3 - Properties	Identical with ISO 3585:1998
ISO 8655-2, Piston-operated volumetric apparatus — Part 2: Pipettes	IS 17094 (Part 2) : 2019/ ISO 8655-2 : 2002 —Piston - Operated volumetric apparatus: Part 2 piston pipettes	Identical with ISO 8655-2:2002

The technical committee has reviewed the provisions of the following International Standards referred in this adoptedstandard and has decided that they are acceptable for use in conjunction with this standard.

International Standard No.	*Title*
ISO 3696:1987	Water for analytical laboratory use — Specification and test methods
ISO 7708:1995	Air quality — Particle size fraction definitions for health-related sampling
ISO 8655-1	Piston-operated volumetric apparatus — Part 1: Terminology, general requirements and user recommendations
ISO 8655-5	Piston-operated volumetric apparatus — Part 5: Dispensers
ISO 8655-6	Piston-operated volumetric apparatus — Part 6: Gravimetric reference measurement procedure for the determination of volume
ISO 13137	Workplace atmospheres — Pumps for personal sampling of chemical agents — Requirements and test methods

In this adopted standard, reference appears to certain International Standards where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are (27 ± 2) ℃ and (65 ± 5) percent, relative humidity and shall be observed while using this standard.

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*)'.