

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

जल एवं अपशिष्ट जल के नमूने लेने तथा परीक्षण (भौतिक एवं रसायन) की पद्धतियाँ
भाग 85 पॉलीक्लोराइनेटेड डिबेंजो-पी-डाइऑक्सिन और पॉलीक्लोराइनेटेड बाइफिनाइल के चयनित संबंधी का प्रवाह इम्यूनोसेंसर तकनीक विधि द्वारा पता लगाना

Draft Indian Standard

**Methods of Sampling and Test (Physical and Chemical) for Water and Wastewater
Part 85 Detection of selected congeners of polychlorinated dibenzo-p-dioxins and
polychlorinated biphenyls — Method using a flow
immunosensor technique
[IS 3025 (Part 85) is adoption of ISO 23256]**

ICS 13.060.50

Water Quality Sectional Committee, CHD 36

Last date for Comments: 25 November 2024

NATIONAL FOREWORD

(Formal clauses to be added later)

The Indian Standard IS 3025 : 1964 'Methods of sampling and test (physical and chemical) for water used in industry' prescribes the methods of test for various parameters in water and wastewater. The Committee responsible for formulating this standard has decided to harmonize the methods of test prescribed in IS 3025 with those prescribed in ISO standards. Accordingly, the committee decided to retain IS 3025 and publish the harmonized/ adopted test methods published by ISO in various parts of IS 3025 as this standard is widely recognized by water testing laboratories. The committee had further decided to publish the new test methods adopted/harmonized standards as a new standard and as a subsequent part/section of IS 3025.

This standard specifies methods and principles for detection of selected congeners of polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated biphenyls (PCBs) in water and wastewater using a flow immunosensor. The flow immunosensor utilizes antibodies specific to 2,3,7,8-tetrachlorodibenzop-dioxin (2,3,7,8-TCDD) and 3,3',4,4',5-pentachlorobiphenyl (3,3',4,4',5-PeCB), which have the highest toxic equivalent factor (TEF) value among the congeners of each of PCDDs and PCBs.

The method is applicable to timely monitoring of selected congeners of 2,3,7,8-TCDD and 3,3',4,4',5-PeCB in water and wastewater to prioritize those for subsequent confirmatory determination.

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' appears 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 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 $27\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ and (65 ± 5) percent relative humidity and shall be observed while using this standard.

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 editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 5667-1, Water quality — Sampling — Part 1: Guidance on the design of sampling programmes and sampling techniques	IS 17614 (Part 1): XXXX ISO 5667-1: 2023 Water Quality — Sampling Part 1 Guidance on the design of sampling programmes and sampling techniques (under print)	Identical with ISO 5667-1: 2023
ISO 5667-3, Water quality — Sampling — Part 3: Preservation and handling of water samples	IS 17614 (Part 3): XXXX ISO 5667-3: 2024 Water Quality — Sampling Part 3 Preservation and Handling of Water Samples (under print)	Identical with ISO 5667-3: 2024
ISO 5667-6, Water quality — Sampling — Part 6: Guidance on sampling of rivers and streams	IS 17614 (Part 6): 2021 ISO 5667-6: 2014 Water Quality — Sampling Part 6 Guidance on sampling of rivers and streams	Identical with ISO 5667-6: 2021
ISO 5667-10, Water quality — Sampling — Part 10: Guidance on sampling of waste water	IS 17614 (Part 10): 2021 ISO 5667-10: 2020 Water Quality — Sampling Part 10 Guidance on sampling of waste waters	Identical with ISO 5667-10: 2020

The Technical Committee responsible for the preparation of this standard has reviewed the provisions of the below mentioned ISO/IEC standards and has decided that they are acceptable for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
ISO 3696: 1987	Water for analytical laboratory use — Specification and test methods

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*)'.