

(PREVIEW)

Indian Standard

**METHODS OF SAMPLING AND TEST
(PHYSICAL AND CHEMICAL) FOR WATER
AND WASTEWATER
PART 49 ZINC**

1 SCOPE

This standard prescribes following four methods for determination of zinc:

- a) Zincon Method,
- b) Atomic Absorption Method (Direct),
- c) Atomic Absorption Method (Chelation and Extraction), and
- d) Differential Pulse Anodic Stripping Voltammetry (DPASV).

Depending upon the concentration range and interference levels, choice of the method is made. When the concentration levels are below 200 µg/l, preconcentration is carried out either by chelation and extraction prior to atomic absorption spectrophotometer (AAS) or by deposition on a mercury drop electrode as in DPASV method. For dissolved zinc content, filtration through 0.45 µm membrane filter is required.

2 REFERENCE

2.1 The Indian Standards listed below contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standards are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
3025 (Part 1) : 1986	Methods of sampling and test (physical and chemical) for water and wastewater : Part 1 Sampling (first revision)
7022 (Part 1) : 1973	Glossary of terms relating to water, sewage and industrial effluents: Part 1
7022 (Part 2) : 1979	Glossary of terms relating to water, sewage and industrial effluents : Part II' (Page 2, clause 4.4.3) - Insert the following 'Note' at the end of this clause:

'NOTE - Potassium cyanide is deadly poison. Avoid skin contact or inhalation of vapours. Do not pipette by mouth or bring in contact with acids.' (Page 2, clause 4.4.4) - Substitute the following for the existing:

4.4.4 Cyclohexanone Solution

Dissolve 1 ml of purified cyclohexanone in 50 ml of water.'