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Water quality — Sampling

Part 25: Guideline on the validation of the storage time of water samples

bsi.

National foreword

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
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Foreword

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This document was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 6, *Sampling (general methods).*

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Introduction

This document addresses the need for harmonized and reliable data on stability, which is essential for the expression of recommendations for both normative and regulatory purposes. It describes a methodological framework that enables laboratories to produce quality data that can be shared and even monetized[7].

It enables laboratories to study the stability of parameters when using the physico-chemical parameters measurement system: organic micropollutants, inorganic and organometallic micropollutants, nutrients and macropollutants in aqueous matrices (surface water, ground water, residual urban and industrial water and drinking water). It covers the sampling, transport and laboratory storage operations.

NOTE This document does not cover solid matrices from aquatic environments (suspended solids, sediments).

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Water quality — Sampling —

Part 25: Guideline on the validation of the storage time of water samples

1 Scope

The purpose of this document is to describe test plans and different operating methodologies of these test plans to define and verify the acceptable length of stability of a substance in a sample under specified conditions of preservation (temperature, matrix, light, addition of a stabilizer, where appropriate, type of preservation etc.) before starting analytical protocols (chemicals and physico-chemicals analysis). Biological and microbiological methods are excluded.

It is necessary to have an analytical method with performances that have already been characterized (repeatability, intermediate precision, trueness, accuracy and uncertainty) in order to perform the stability study and implement its test plans.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TS 21231, *Water quality — Characterization of analytical methods — Guidelines for the selection of a representative matrix*

3 Terms, definitions and symbols

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
analytical process
detailed description of a measurement according to one or more measurement principles and to one given measurement method, and including any calculations intended to obtain a measurement result

3.2
batch
<production, material> definite amount of test material prepared by the laboratory at a given point in time under supposedly identical conditions

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