
**Water quality — Determination of
adsorbable organically bound halogens
(AOX)**

*Qualité de l'eau — Dosage des composés organiques halogénés
adsorbables (AOX)*



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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9562 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*.

This third edition cancels and replaces the second edition (ISO 9562:1998), which has been technically revised.

Introduction

Adsorbable organically bound halogens (AOX) is an analytical convention. The result is a parameter used for water quality control purposes. It represents the sum of organically bound chlorine, bromine and iodine (but not fluorine) that can be adsorbed on activated carbon under specified conditions and, if the sample is not filtered, includes that associated with suspended matter.

The user should be aware that particular problems could require the specification of additional marginal conditions.

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Water quality — Determination of adsorbable organically bound halogens (AOX)

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this International Standard be carried out by suitably qualified staff.

1 Scope

This International Standard specifies a method for the direct determination of an amount of usually 10 µg/l in water of organically bound chlorine, bromine and iodine (expressed as chloride) adsorbable on activated carbon.

This method is applicable to test samples (see 9.2) with concentrations of inorganic chloride ions of less than 1 g/l. Samples with higher concentrations are diluted prior to analysis.

This method is also applicable to samples containing suspended solids where halogens are adsorbed onto the solid matter (e.g. insoluble halides). Filtration of the sample before analysis allows the separate determination of dissolved and particulate adsorbable organically bound halogens (AOX).

Filtered samples with high inorganic chloride content can be analysed by a modified method [dissolved adsorbable organically bound halogens after solid phase extraction in waters with high salt content (SPE-AOX)] (see Annex A). However, results obtained by this modified method can differ significantly from those of the required method.

2 Normative references

The following referenced documents are indispensable for the application 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 1773:1997, *Laboratory glassware — Narrow-necked boiling flasks*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

3 Terms and definitions

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

3.1

adsorbable organically bound halogens

AOX

equivalent amount of chlorine, bromine, and iodine contained in organic compounds, expressed as chloride when determined according to this International Standard