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

*Qualité de l'eau — Dosage des halogènes adsorbables organiquement liés
(AOX)*



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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 3.

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.

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

This second edition cancels and replaces the first edition (ISO 9562:1989), which has been technically revised.

Annexes A and B of this International Standard are for information only.

Introduction

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

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

1 Scope

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

The method is applicable to concentrations of inorganic chloride ions in the test sample (see clause 9) of less than 1 g/l. Samples with higher concentrations need to be diluted prior to analysis.

For samples containing suspended solids, halogens adsorbed onto the solid matter are also included. Filtration of the sample before analysis enables the determination of dissolved and particulate AOX to be carried out.

NOTE The recovery of some polar and hydrophilic compounds, such as monochloroacetic acid, is incomplete.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3696, *Water for laboratory use — Specification and test methods*.

3 Terms and definitions

For the purposes of this International Standard, 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 in accordance with this International Standard

3.2

dissolved organic carbon

DOC

amount of organic carbon present in a water sample after filtration through a membrane filter of pore size 0,45 µm