

Water quality - Determination of dissolved perchlorate -
Method using ion chromatography (IC) (ISO
19340:2017)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 19340:2017 sisaldab Euroopa standardi EN ISO 19340:2017 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 19340:2017 consists of the English text of the European standard EN ISO 19340:2017.
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English Version

Water quality - Determination of dissolved perchlorate -
Method using ion chromatography (IC) (ISO 19340:2017)

Qualité de l'eau - Détermination du perchlorate dissous
- Méthode par chromatographie ionique (IC) (ISO
19340:2017)

Wasserbeschaffenheit - Bestimmung von gelöstem
Perchlorat - Verfahren mittels Ionenchromatographie
(IC) (ISO 19340:2017)

This European Standard was approved by CEN on 7 October 2017.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 19340:2017) has been prepared by Technical Committee ISO/TC 147 "Water quality" in collaboration with Technical Committee CEN/TC 230 "Water analysis" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

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

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Endorsement notice

The text of ISO 19340:2017 has been approved by CEN as EN ISO 19340:2017 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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

Water quality — Determination of dissolved perchlorate — Method using ion chromatography (IC)

WARNING — Persons using this document should be familiar with normal laboratory practice. This document 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 determine the applicability of any other restrictions.

IMPORTANT — It is absolutely essential that tests conducted in accordance with this document be carried out by suitably qualified staff.

1 Scope

This document specifies a method for the determination of dissolved perchlorate in water (e.g. drinking water, mineral water, raw water, surface water, partially treated water or swimming pool water, waste water from drinking/swimming pool water treatment plants).

Appropriate pre-treatment of the sample (e.g. matrix elimination) allows a direct determination of perchlorate $\geq 1 \mu\text{g/l}$.

The working range is restricted by the ion-exchange capacity of the separator column. Dilution of the sample to the working range can be necessary.

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

ISO 8466-1, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 1: Statistical evaluation of the linear calibration function*

ISO 8466-2, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 2: Calibration strategy for non-linear second-order calibration functions*

3 Terms and definitions

No terms and definitions are listed in this document.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

4 Interferences

Perchlorate is known to be susceptible to microbiological degradation in the absence of nitrate and by anaerobic bacteria (References [5] and [6]).