



SLOVENSKI STANDARD
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Nadomešča:

SIST EN ISO 17294-1:2007

Kakovost vode - Uporaba masne spektrometrije z induktivno sklopljeno plazmo (ICP-MS) - 1. del: Splošne smernice (ISO 17294-1:2024)

Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 1: General requirements (ISO 17294-1:2024)

Wasserbeschaffenheit - Anwendung der induktiv gekoppelten Plasma-Massenspektrometrie (ICP-MS) - Teil 1: Allgemeine Anforderungen (ISO 17294-1:2024)

Qualité de l'eau - Application de la spectrométrie de masse avec plasma à couplage inductif (ICP- MS) - Partie 1: Exigences générales (ISO 17294-1:2024)

Ta slovenski standard je istoveten z: EN ISO 17294-1:2024

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ICS:

13.060.50	Preiskava vode na kemične snovi	Examination of water for chemical substances
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EUROPEAN STANDARD

EN ISO 17294-1

NORME EUROPÉENNE

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April 2024

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English Version

Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 1: General requirements (ISO 17294-1:2024)

Qualité de l'eau - Application de la spectrométrie de masse avec plasma à couplage inductif (ICP- MS) - Partie 1: Exigences générales (ISO 17294-1:2024)

Wasserbeschaffenheit - Anwendung der induktiv gekoppelten Plasma-Massenspektrometrie (ICP-MS) - Teil 1: Allgemeine Anforderungen (ISO 17294-1:2024)

This European Standard was approved by CEN on 20 January 2024.

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European foreword

This document (EN ISO 17294-1:2024) 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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

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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International Standard

ISO 17294-1

Water quality — Application of inductively coupled plasma mass spectrometry (ICP-MS) —

Part 1: General requirements

*Qualité de l'eau — Application de la spectrométrie de masse avec
plasma à couplage inductif (ICP-MS) —*

Partie 1: Exigences générales

**Second edition
2024-03**

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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 document 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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This document was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 230, *Water analysis*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 17294-1:2004), which has been technically revised.

The main changes are as follows:

- scope has been revised to align with ISO 17294-2;
- text has been revised to reflect currently available instruments used in routine daily practice in many laboratories;
- [Clauses 5](#) and [6](#) have been revised to reflect the state-of-the-art equipment used to measure elements according to ISO 17294-2;
- abbreviated terms in [Clause 9](#) have been revised to align with common terms used in other standards;
- [Table A.1](#) has been updated.

A list of all parts in the ISO 17294 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 17294-1:2024(en)**Introduction**

Since the last edition of this document, new developments in metal analysis with inductively coupled plasma mass spectrometry (ICP-MS) have taken place. The use of the collision or reaction cell (CRC) technology in quadrupole ICP-MS and triple quadrupole ICP-MS has increased in laboratories. For this reason, this document has been revised and new items have been added.

The intention for the revision of this document was to focus on the instrumentation currently available and in use for determining elements according to ISO 17294-2 in daily practice in laboratories. The consequence of this starting point is that the use of correction formulae has been moved to [Annex A](#) because of its reduced importance in modern instrumentation. Many principles also apply for high-resolution or accurate mass instrumentation, although they are not described in detail in this document.

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