

**SLOVENSKI STANDARD  
SIST EN ISO 12846:2012****01-junij-2012****Nadomešča:  
SIST ISO 5666:2000**

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**Kakovost vode - Določevanje živega srebra - Metoda atomske absorpcijske spektrometrije (AAS) s predkoncentracijo ali brez nje (ISO 12846:2012)**

Water quality - Determination of mercury - Method using atomic absorption spectrometry (AAS) with and without enrichment (ISO 12846:2012)

Wasserbeschaffenheit - Bestimmung von Quecksilber - Verfahren mittels Atomabsorptionsspektrometrie (AAS) mit und ohne Anreicherung (ISO 12846:2012)  
(standards.iteh.ai)Qualité de l'eau - Dosage de mercure - Méthode par spectrométrie d'absorption atomique (SAA) avec et sans enrichissement (ISO 12846:2012)  
1d7252a67b3d/sist-en-iso-12846-2012**Ta slovenski standard je istoveten z: EN ISO 12846:2012****ICS:**

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

EN ISO 12846

NORME EUROPÉENNE

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April 2012

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## Water quality - Determination of mercury - Method using atomic absorption spectrometry (AAS) with and without enrichment (ISO 12846:2012)

Qualité de l'eau - Dosage du mercure - Méthode par spectrométrie d'absorption atomique (SAA) avec et sans enrichissement (ISO 12846:2012)

Wasserbeschaffenheit - Bestimmung von Quecksilber - Verfahren mittels Atomabsorptionsspektrometrie (AAS) mit und ohne Anreicherung (ISO 12846:2012)

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**Contents**

Page

Foreword.....3

**iTeh STANDARD PREVIEW  
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SIST EN ISO 12846:2012

<https://standards.iteh.ai/catalog/standards/sist/d64a9d34-22e9-4ac2-b631-1d7252a67b3d/sist-en-iso-12846-2012>

## Foreword

This document (EN ISO 12846:2012) 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of an identical text or by endorsement, at the latest by October 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

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

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# INTERNATIONAL STANDARD

**ISO**  
**12846**

First edition  
2012-04-15

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## Water quality — Determination of mercury — Method using atomic absorption spectrometry (AAS) with and without enrichment

*Qualité de l'eau — Dosage du mercure — Méthode par spectrométrie  
d'absorption atomique (SAA) avec et sans enrichissement*

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<b>Contents</b>	<b>Page</b>
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Principle</b> .....	<b>2</b>
<b>4 General interferences</b> .....	<b>2</b>
<b>5 Sample collection and pre-treatment for drinking, surface, ground and rain-water samples</b> .....	<b>3</b>
<b>6 Determination of mercury after tin(II) chloride reduction and enrichment by amalgamation</b> .....	<b>4</b>
<b>6.1 Reagents and standards</b> .....	<b>4</b>
<b>6.2 Apparatus and instrumentation</b> .....	<b>6</b>
<b>6.3 Instrumental set-up</b> .....	<b>8</b>
<b>6.4 Procedure</b> .....	<b>8</b>
<b>6.5 Calculation</b> .....	<b>9</b>
<b>7 Determination of mercury after tin(II) chloride reduction without enrichment</b> .....	<b>9</b>
<b>7.1 Reagents and standards</b> .....	<b>9</b>
<b>7.2 Apparatus and instrumentation</b> .....	<b>9</b>
<b>7.3 Sample collection and pre-treatment for drinking, surface, ground and rain-water samples</b> .....	<b>10</b>
<b>7.4 Sample collection and pre-treatment for waste-water samples</b> .....	<b>10</b>
<b>7.5 Instrumental set-up</b> .....	<b>10</b>
<b>7.6 Procedure</b> .....	<b>10</b>
<b>7.7 Calculation</b> .....	<b>11</b>
<b>8 Expression of results</b> .....	<b>11</b>
<b>9 Test report</b> .....	<b>11</b>
<b>Annex A (informative) Performance data</b> .....	<b>12</b>
<b>Bibliography</b> .....	<b>15</b>

**ISO 12846:2012(E)****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 12846 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*.

This first edition of ISO 12846 cancels and replaces the editions (ISO 5666:1999, ISO 16590:2000), which have been technically revised.

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## Introduction

In natural water sources, mercury compounds generally occur in very low concentrations of less than 0,1 µg/l. Higher concentrations may be found, for example, in industrial waste water. Both inorganic and organic compounds of mercury may be present. Mercury can also accumulate in sediments and sludges.

In order to fully decompose all of the mercury compounds in the presence of particles in the sample, an additional digestion procedure is necessary. This additional digestion can be omitted only if significant amounts of previous comparison data clearly demonstrate this.

For reliable measurements in the low-concentration range, the highest purity reagents, clean vessels, mercury-free air in the laboratory and a very stable measurement system are essential.

This International Standard is a state-of-the-art revision of existing standards for the determination of mercury by AAS with and without a pre-enrichment step combining the advantages of the existing methods with new developments and technique. The following methods are considered:

### A) Methods without enrichment:

- ISO 5666:1999, *Water quality — Determination of mercury;*
- EN 1483:2007, *Water quality — Determination of mercury — Method using atomic absorption spectrometry.*

### B) Methods with enrichment:

- ISO 16590:2000, *Water quality — Determination of mercury — Methods involving enrichment by amalgamation;*
- EN 12338:1998, *Water quality — Determination of mercury — Enrichment methods by amalgamation.*

SIST EN ISO 12846:2012

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