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Chemicals used for treatment of water intended for human consumption - Chlorine dioxide generated in situ

## ESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

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English Version

Chemicals used for treatment of water intended for human  
consumption - Chlorine dioxide generated in situ

Produits chimiques utilisés pour le traitement de l'eau  
destinée à la consommation humaine - Dioxyde de  
chlore généré in situ

Produkte zur Aufbereitung von Wasser für den  
menschlichen Gebrauch - Vor Ort erzeugtes  
Chlordioxid

This European Standard was approved by CEN on 18 March 2016.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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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 12671:2016) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2016, and conflicting national standards shall be withdrawn at the latest by November 2016.

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.

This document supersedes EN 12671:2009.

Significant technical differences between this edition and EN 12671:2009 are as follows:

- a) deletion of reference to EU Directive 67/548/EEC of June 27, 1967 in order to take into account the latest Regulation in force (see [3]);
- b) Subclause 6.2 – updating of risk and safety labelling according to EU Regulation [3] and its latest Adaptations to Technical Progress).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this document:

- 1) this document provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;
- 2) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

NOTE 1 Conformity with this standard does not confer or imply acceptance or approval of the product in any of the Member States of the EU or EFTA. The use of the product covered by this document is subject to regulation or control by National Authorities.

NOTE 2 This product is a biocide and needs to comply with the relevant legislation in force. In the European Union, at the time of publication, this legislation is REGULATION (EU) No 528/2012 [2]).

## 1 Scope

This European Standard is applicable to chlorine dioxide generated on site for treatment of water intended for human consumption. It describes the characteristics for chlorine dioxide and specifies the composition and the corresponding test methods for chlorine dioxide. It gives information on its use in water treatment. It also determines the rules relating to safe handling and use of chlorine dioxide generated on site (see Annex B).

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696)*

ISO 3165, *Sampling of chemical products for industrial use — Safety in sampling*

ISO 6206, *Chemical products for industrial use — Sampling — Vocabulary*

## 3 Description

### 3.1 Identification

#### 3.1.1 Chemical name

Chlorine dioxide.

#### 3.1.2 Synonym or common name

None.

#### 3.1.3 Relative molecular mass

67,46.

#### 3.1.4 Empirical formula

ClO<sub>2</sub>.

#### 3.1.5 Chemical formula

O<sub>...</sub>—Cl—O (resonance structure).

#### 3.1.6 CAS Registry Number <sup>1)</sup>

10049-04-4.

#### 3.1.7 EINECS reference <sup>2)</sup>

233-162-8.

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1) Chemical Abstracts Service Registry Number.

2) European Inventory of Existing Commercial Chemical Substances.