SLOVENSKI STANDARD
SIST EN 16004:2012

01-februar-2012

Kemikalije, ki se uporabljajo za pripravo pitne vode - Magnezijev oksid

Chemicals used for treatment of water intended for human consumption - Magnesium oxide

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Magnesiumoxid

Produits chimiques utilisés pour le traitement de l'eau destinée à la consommation humaine - Oxyde de magnésium

Ta slovenski standard je istoveten z: EN 16004:2011

ICS:

13.060.20	Pitna voda	Drinking water
71.100.80	Kemikalije za čiščenje vode	Chemicals for purification of water

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EUROPEAN STANDARD

NORME EUROPÉENNE

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ICS 71.100.80

English Version

Chemicals used for treatment of water intended for human consumption - Magnesium oxide

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 16004:2011) 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of an identical text or by endorsement, at the latest by May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.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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Introduction

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

— this Standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;

— 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 Conformity with the 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 European Standard is subject to regulation or control by National Authorities.

1 Scope

This European Standard is applicable to magnesium oxide used for treatment of water intended for human consumption. It describes the characteristics of magnesium oxide and specifies the requirements and the corresponding test methods for magnesium oxide. It gives information on its use in water treatment.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 12485, *Chemicals used for treatment of water intended for human consumption — Calcium carbonate, high-calcium lime, half-burnt dolomite, magnesium oxide and calcium magnesium carbonate — Test methods*

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

Magnesium oxide.

3.1.2 Synonym or common name

Periklas/magnesia.

3.1.3 Relative molecular mass

40,31.

3.1.4 Empirical formula

MgO.

3.1.5 Chemical formula

MgO.

3.1.6 CAS Registry Number [1)]

MgO: 1309-48-4.

1) Chemical Abstracts Service Registry Number.

3.1.7 EINECS reference [2].

MgO: 215-171-9.

3.2 Commercial forms

Magnesium oxide is available in granular form of various particle size ranges.

3.3 Physical properties

3.3.1 Appearance

The product is a grey material in round granular form.

3.3.2 Density

The density is 3,6 g/cm^3 at 20 °C.

The bulk density is from 1,1 g/cm^3 to 1,3 g/cm^3.

3.3.3 Solubility in water

The solubility of product is equal to 0,0062 g/l at 20 °C.

3.3.4 Particle size

It varies depending on the application (see A.2.3).

3.4 Chemical properties

Magnesium oxide product reacts as an alkali when dissolved in water. With carbon dioxide and water it hydrolyses and reacts to form magnesium hydrogen carbonate.

4 Purity criteria

4.1 General

This European Standard specifies the minimum purity requirements for calcium magnesium oxide used for the treatment of water intended for human consumption. Limits are given for impurities commonly present in the product. Depending on the raw material and the manufacturing process other impurities may be present and, if so, this shall be notified to the user and when necessary to the relevant authorities.

NOTE Users of this product should check the national regulations in order to clarify whether it is of appropriate purity for treatment of water intended for human consumption, taking into account raw water quality, required dosage, contents of other impurities and additives used in the product not stated in this product standard.

Limits have been given for impurities and toxic substances where these are likely to be present in significant quantities from the current production process and raw materials. If a change in the production process or raw materials leads to significant quantities of other impurities or by-products being present, this shall be notified to the user.

2) European Inventory of Existing Commercial Chemical Substances.