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Processkemikalier för beredning av dricksvatten – dolomitkalk

Chemicals used for treatment of water for human consumption – Dolomitic lime

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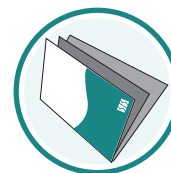
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EUROPEAN STANDARD

EN 16409

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2013

ICS 71.100.80

English Version

Chemicals used for treatment of water for human consumption - Dolomitic lime

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

Produkte zur Aufbereitung von Wasser für den
menschlichen Gebrauch - Dolomitkalk

This European Standard was approved by CEN on 26 October 2013.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 16409:2013) 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of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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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 European Standard:

- a) this European 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;
- b) 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 this European 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 dolomitic lime used for treatment of water intended for human consumption. It describes the characteristics of dolomitic lime and specifies the requirements and the corresponding test methods. It gives information on its use in water treatment. It also determines the rules relating to safe handling and use (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 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*

3 Description

3.1 Identification

3.1.1 General

Dolomitic limes are calcium magnesium dihydroxide oxide and calcium magnesium dioxide.

3.1.2 Chemical names

- a) Calcium magnesium dihydroxide oxide;
- b) calcium magnesium dioxide.

3.1.3 Synonym or common names

- a) Calcium magnesium dihydroxide oxide, semi-hydrated dolomitic lime, half-hydrated dolomitic lime, dolomitic hydrated lime;
- b) calcium magnesium dioxide, calcium magnesium oxide, dolomitic lime, dolomitic quicklime.

3.1.4 Relative molecular mass

- a) Calcium magnesium dihydroxide oxide: 114,40 g/mol;
- b) calcium magnesium dioxide: 96,39 g/mol.

3.1.5 Empirical formula

- a) Calcium magnesium dihydroxide oxide: CaMgH_2O_3 ;
- b) calcium magnesium dioxide: CaMgO_2 .

3.1.6 Chemical formula

- a) Calcium magnesium dihydroxide oxide: $\text{Ca}(\text{OH})_2\text{MgO}$;

b) calcium magnesium dioxide: CaOMgO.

3.1.7 CAS Registry Number¹⁾

a) Calcium magnesium dihydroxide oxide: 58398-71-3;

b) calcium magnesium oxide: 37247-91-9.

3.1.8 EINECS reference²⁾

a) Calcium magnesium dihydroxide oxide: 261-235-4;

b) calcium magnesium oxide: 253-425-0.

3.2 Commercial forms

Calcium magnesium dihydroxide oxide and calcium magnesium dioxide are available in the following commercial form:

— coarse material or powder.

3.3 Physical properties

3.3.1 Appearance

a) Calcium magnesium dihydroxide oxide: powder;

b) calcium magnesium dioxide: coarse or powder.

3.3.2 Density

a) Calcium magnesium dihydroxide oxide: 2,2 kg/dm³ – 2,6 kg/dm³ at 20 °C;

bulk density: 400 kg/m³ to 600 kg/m³;

b) calcium magnesium dioxide: 3,3 kg/dm³ – 3,6 kg/dm³ at 20 °C;

bulk density: 700 kg/m³ to 1 200 kg/m³.

3.3.3 Solubility (in water)

a) Calcium magnesium dihydroxide oxide: 1 000 mg/l at 20 °C;

b) calcium magnesium dioxide: 1 385 mg/l at 20 °C.

3.3.4 Vapour pressure

Not applicable.

1) Chemical Abstracts Service Registry Number.

2) European Inventory of Existing Commercial Chemical Substances.