# SLOVENSKI STANDARD
# SIST EN 1017:1999

**01-april-1999**

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**Kemikalije, ki se uporabljajo za pripravo pitne vode – Polpraženi dolomit**

Chemicals used for treatment of water intended for human consumption - Half-burnt dolomite

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Halbgebrannter Dolomit



Produits chimiques utilisés pour le traitement de l'eau destinée a la consommation humaine - Dolomie semi-calcinée



**Ta slovenski standard je istoveten z:** **EN 1017:1998**

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**ICS:**

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

**SIST EN 1017:1999** **en**

# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

**EN 1017**

May 1998

ICS 71.100.80

Descriptors: potable water, water treatment, chemical compounds, dolomite mineral, description, physical properties, chemical properties, impurities, toxic substances, tests, labelling, storage

English version

## Chemicals used for treatment of water intended for human consumption - Half-burnt dolomite

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

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Halbgebrannter Dolomit

This European Standard was approved by CEN on 30 April 1998.

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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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

**Central Secretariat: rue de Stassart, 36 B-1050 Brussels**

## Contents

**Foreword**

This European Standard 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 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland 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 Standard :

1) 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 ;

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.

## 1 Scope

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

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

| | |
|---|---|
| EN 459-2 | Building lime - Part 2 : Test methods |
| prEN 12485 | Chemicals used for treatment of water intended for human consumption - Calcium carbonate high-calcium lime and half-burnt dolomite - Test methods |
| pr EN 12902 | Products used for treatment of water intended for human consumption - Inorganic Supporting and filtering materials - 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

Calcium carbonate magnesium oxide.

### 3.1.2 Synonym or common name

Half-burnt dolomite.

### 3.1.3 Relative molecular mass

140,39.

### 3.1.4 Empirical formula

$CaCO_3$.MgO.

### 3.1.5 Chemical formula

$CaCO_3$.MgO.

### 3.1.6 CAS Registry Number [1)]

$CaCO_3$ : 471-34-1

MgO : 1309-48-4.

### 3.1.7 EINECS reference [2)]

$CaCO_3$ : 207-439-9.

MgO : 215-171-9.



## 3.2 Commercial forms

Half-burnt dolomite is available in crushed, granular, and pelletized form of various particle size ranges.

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1) Chemical Abstracts Service Registry Number
2) European Inventory of Existing Commercial Chemical Substances

### 3.3 Physical properties

#### 3.3.1 Appearance

The production is a white or grey granular and pelletized material.

#### 3.3.2 Density

The density is equal to 2,4 g/cm³ at 20 °C. The bulk density is between 1,05 g/cm³ to 1,2 g/cm³.

#### 3.3.3 Solubility in water

The solubility of the product is 0,02 g/l at 10 °C.

#### 3.3.4 Vapour pressure

Not applicable.

#### 3.3.5 Boiling point at 100 kPa [3)]

Not applicable.

#### 3.3.6 Melting point

Not known.

#### 3.3.7 Specific heat

Not applicable.

#### 3.3.8 Viscosity (dynamic)



Not applicable.



#### 3.3.9 Critical temperature

Not applicable.

#### 3.3.10 Critical pressure

Not applicable.

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[3)] 100 kPa = 1 bar

### 3.3.11 Physical hardness

Not applicable.

### 3.3.12 Particle size

It varies depending on the application (see A.2.2).

## 3.4 Chemical properties

Half-burnt dolomite reacts as an alkali when dissolved in water. With carbon dioxide and water it reacts to form calcium hydrogen carbonate and magnesium hydrogen carbonate.

## 4 Purity criteria

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.

## 4.1 Composition of commercial product

The product shall conform to the requirements specified in table 1 :

**Table 1 : Composition of commercial product**

| Parameter | Limit % (*m/m*) of commercial product |
|---|---|
| Content of free MgO and Mg $(OH)_2$ expressed as MgO min. | 23 |
| Content of $CaCO_3$ expressed as $CaCO_3$ min. | 68 |