



# SLOVENSKI STANDARD

## SIST EN 1018:2006

01-oktober-2006

Nadomešča:  
SIST EN 1018:1999

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### Kemikalije, ki se uporabljajo za pripravo pitne vode – Kalcijev karbonat

Chemicals used for treatment of water intended for human consumption - Calcium carbonate

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Calciumcarbonat

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

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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 1018:2006** en

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 1018**

July 2006

ICS 71.100.80

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English Version

## Chemicals used for treatment of water intended for human consumption - Calcium carbonate

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

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Calciumcarbonat

This European Standard was approved by CEN on 23 June 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This document (EN 1018:2006) 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document supersedes EN 1018:1998.

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

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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 document:

- a) 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;
- 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 document 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.

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## 1 Scope

This document is applicable to calcium carbonate used for treatment of water intended for human consumption. It describes the characteristics of calcium carbonate and specifies the requirements and the corresponding test methods for calcium carbonate. 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 and half-burnt dolomite - 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

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#### 3.1.1 Chemical name

Calcium carbonate

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#### 3.1.2 Synonym or common name

[56b32efa39e2/sist-en-1018-2006](#)

Limestone

#### 3.1.3 Relative molecular mass

100,09

#### 3.1.4 Empirical formula

CaCO<sub>3</sub>

#### 3.1.5 Chemical formula

CaCO<sub>3</sub>

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

CaCO<sub>3</sub>:1317-65-3

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<sup>1)</sup> Chemical Abstracts Service Registry Number

**EN 1018:2006 (E)****3.1.7 EINECS reference<sup>2)</sup>**

CaCO<sub>3</sub> : 215-279-6

**3.2 Commercial forms**

Calcium carbonate is available in crushed and granular form of various particle size ranges, and as slurry.

**3.3 Physical properties****3.3.1 Appearance**

The product is a white or grey material in crushed and granular form.

**3.3.2 Density**

The density of the product is equal to 2,71 g/cm<sup>3</sup> at 20 °C. The bulk density of the product is between 1,0 g/cm<sup>3</sup> to 1,5 g/cm<sup>3</sup>.

**3.3.3 Solubility in water**

The solubility of the product in water is 0,014 g/l at 10 °C.

**3.3.4 Vapour pressure**

Not applicable.

**3.3.5 Boiling point at 100 kPa<sup>3)</sup>**

Not applicable.

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**3.3.6 Melting point**

Not applicable.

**3.3.7 Specific heat**

Not applicable.

**3.3.8 Viscosity (dynamic)**

Not applicable.

**3.3.9 Critical temperature**

Not applicable.

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<sup>2)</sup> European Inventory of Existing Commercial Chemical Substances

<sup>3)</sup> 100 kPa = 1 bar



### 3.3.10 Critical pressure

Not applicable.

### 3.3.11 Physical hardness

Depending on the origin.

### 3.3.12 Particle size

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

## 3.4 Chemical properties

Calcium carbonate reacts as an alkali when dissolved in water. With carbon dioxide and water it reacts to form calcium hydrogen carbonate.

## 4 Purity criteria

### 4.1 General

This document specifies the minimum purity requirements for calcium carbonate 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 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 document.

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

### 4.2 Composition of commercial product

The product shall conform to the requirements specified in Table 1.