



**SLOVENSKI STANDARD**  
**oSIST prEN 15796:2020**  
**01-julij-2020**

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**Kemikalije, ki se uporabljajo za pripravo bazenske vode - Kalcijev hipoklorit**

Chemicals used for treatment of swimming pool water - Calcium hypochlorite

Produkte zur Aufbereitung von Schwimm-und Badebeckenwasser - Calciumhypochlorit

Produits chimiques utilisés pour le traitement de l'eau des piscines - Hypochlorite de calcium

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**Ta slovenski standard je istoveten z: prEN 15796**

oSIST prEN 15796:2020

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**ICS:**

13.060.25	Voda za industrijsko uporabo	Water for industrial use
71.100.80	Kemikalije za čiščenje vode	Chemicals for purification of water

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 15796**

May 2020

ICS 71.100.80

Will supersede EN 15796:2010

English Version

## Chemicals used for treatment of swimming pool water - Calcium hypochlorite

Produits chimiques utilisés pour le traitement de l'eau  
des piscines - Hypochlorite de calcium

Produkte zur Aufbereitung von Schwimm-und  
Badebeckenwasser - Calciumhypochlorit

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 164.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Description</b> .....	<b>5</b>
<b>5 Purity criteria</b> .....	<b>5</b>
<b>5.1 General</b> .....	<b>5</b>
<b>5.2 Composition of commercial product</b> .....	<b>5</b>
<b>5.3 Impurities and main by-products</b> .....	<b>6</b>
<b>5.4 Chemical parameters</b> .....	<b>6</b>
<b>6 Test methods</b> .....	<b>6</b>
<b>7 Labelling - Transportation - Storage</b> .....	<b>6</b>
<b>7.1 Means of delivery</b> .....	<b>6</b>
<b>7.2 Risk and safety labelling according to the EU Directives</b> .....	<b>6</b>
<b>7.3 Transportation regulations and labelling</b> .....	<b>8</b>
<b>7.4 Marking</b> .....	<b>8</b>
<b>7.5 Storage</b> .....	<b>8</b>
<b>Annex A (informative) General information on calcium hypochlorite</b> .....	<b>10</b>
<b>Annex B (normative) General rules relating to safety</b> .....	<b>11</b>
<b>Bibliography</b> .....	<b>12</b>

## European foreword

This document (prEN 15796:2020) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15796:2010.

In comparison with the previous edition, the following technical modifications have been made:

- a) Modification of 7.3 on transportation regulations and labelling, adding the sentence “The user must be aware of the incompatibilities between transported products”;
- b) Modification of 7.4 on marking. The requirements of marking are also applied to the accompanying documents;
- c) Update of 7.2 on labelling.

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**prEN 15796:2020 (E)****Introduction**

In respect of potential adverse effects on the quality of water for swimming pools, caused by the product covered by this standard:

- d) 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;
- e) 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 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.

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## 1 Scope

This document is applicable to calcium hypochlorite used directly, or for the production of formulations, for treatment of water for swimming pools. It describes the characteristics of calcium hypochlorite and specifies the requirements and the corresponding test methods for calcium hypochlorite. It gives information on its use in swimming pool water treatment. It also determines the rules relating to safe handling and use of calcium hypochlorite (see Annex B).

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 900, *Chemicals used for treatment of water intended for human consumption — Calcium hypochlorite*

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

## 4 Description

For the identification, the commercial form, the physical properties and the chemical properties see the relevant subclauses of EN 900.

For additional information on calcium hypochlorite, see Annex A.

## 5 Purity criteria

### 5.1 General

This document specifies the minimum purity requirements for calcium hypochlorite used for the treatment of water for swimming pools. 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** The national regulations allow users to clarify whether the product is of appropriate purity for the treatment of water for swimming pools, taking into account water quality, required dosage, contents of other impurities and additives used in the product and not stated in this product standard.

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 lead to significant quantities of other impurities, by-products or additives being present, this shall be notified to the user.

### 5.2 Composition of commercial product

Calcium hypochlorite is available in powder, granular or tablet form with a minimum concentration of mass fraction 65,5 % calcium hypochlorite ( $\text{Ca}(\text{ClO})_2$ ) (equivalent to an available active chlorine content in mass fraction of at least 65 %) at the time of delivery by the producer. The concentration of calcium hypochlorite shall be equal to or greater than the value specified by the manufacturer.

**prEN 15796:2020 (E)**

Dissolution quality, calculated as available chlorine which is obtainable within 1 min after dissolution in water, shall not be less than a mass fraction of 45,5 %.

**5.3 Impurities and main by-products**

The content of impurities and water-insoluble matter shall conform to the requirements specified in EN 900.

**5.4 Chemical parameters**

The contents of arsenic, cadmium, chromium, mercury, nickel, lead, antimony, selenium and bromate for each type of product shall conform to the requirements specified in EN 900.

**6 Test methods**

The methods for sampling and analysis are those specified in EN 900.

**7 Labelling - Transportation - Storage****7.1 Means of delivery**

Calcium hypochlorite shall be delivered in plastics-coated steel drums or polyethylene bottles.

In order that the purity of the product is not affected, the means of delivery shall not have been used previously for any different product or it shall have been specially cleaned and prepared before use.

**7.2 Risk and safety labelling according to the EU Directives<sup>1</sup>**

The following labelling requirements shall apply to the following aluminium based coagulants at the date of publication of this document:

Hazard pictogram



**Figure 1 — GHS 03**

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Signal word:

**Danger**

– Hazard statement:

H 272: May intensify fire, oxidizer

H 302: Harmful if swallowed

H 314: causes severe skin burns and eye damage

H 400: Very toxic to aquatic life

EUH031: Contact with acids liberates toxic gas

Precautionary statements (“P statements”) should be provided by the company being responsible for the marketing of the substance. They should be indicated on the packaging label and in the extended safety data sheet (eSDS) of the substance.

<sup>1</sup> See Bibliography, [1].





Figure 2 — GHS 05



Figure 3 — GHS 07

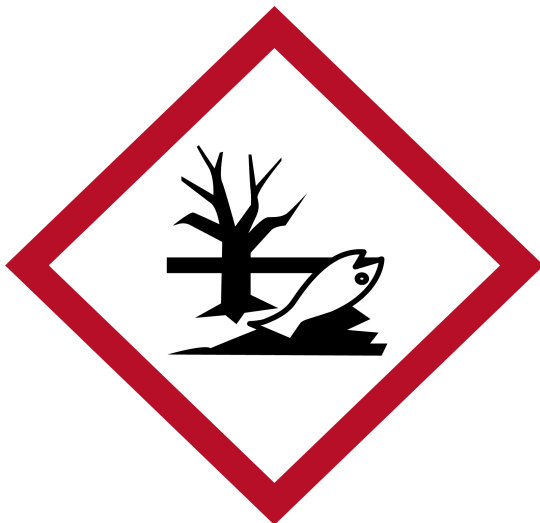


Figure 4 — GHS 09

**prEN 15796:2020 (E)**

The regulation [1], and its amendments for the purposes of its adaptation to technical and scientific progress, contains a list of substances classified by the EU. Substances not listed in this regulation can be classified on the basis of their intrinsic properties according to the criteria in the regulation by the person responsible for the marketing of the substance.

**7.3 Transportation regulations and labelling**

The following classification requirements shall apply to calcium hypochlorite dry at the date of the publication of this standard.

Calcium hypochlorite is listed as UN Number<sup>2</sup>:

- 1748 for granular, calcium hypochlorite mixture, dry;
- 1748 for tablets, calcium hypochlorite mixture, dry;

(The above products contain more than 39 % mass fraction available chlorine.)

- 2880 for granular, calcium hypochlorite, hydrated or calcium hypochlorite, hydrated mixture;
- 2880 for tablets, calcium hypochlorite, hydrated or calcium hypochlorite, hydrated mixture.

(The above products contain a minimum of 5,5 % mass fraction water but not more than 16 % mass fraction water.)

RID<sup>3</sup> ADR<sup>4</sup>: class 5.1, classification code O<sub>2</sub>; packing group II (powder and granular) and packing group III (tablets).

IMDG<sup>5</sup>: class 5.1.

IATA<sup>6</sup>: class 5.1.

The user shall be aware of the incompatibilities between transported products.

**7.4 Marking**

The marking and the accompanying documents shall include the following:

- the name “calcium hypochlorite”, trade name, grade and type;
- the net mass;
- the name and address of supplier and/or manufacturer;
- the statement “This product conforms to EN 15796”.

**7.5 Storage****7.5.1 General**

The product shall be stored in airtight containers in a cool, dry and well-ventilated room.

<sup>2</sup> United Nations Number.

<sup>3</sup> Regulations concerning International carriage of Dangerous goods by rail.

<sup>4</sup> European Agreement concerning the international carriage of Dangerous goods by Road.

<sup>5</sup> International Maritime transport of Dangerous Goods.

<sup>6</sup> International Air Transport Association.