



**SLOVENSKI STANDARD**  
**SIST EN 15032:2006+A1:2008**  
**01-maj-2008**

---

**Kemikalije, ki se uporabljajo za pripravo bazenske vode - Trikloroisocianova kislina**

Chemicals used for treatment of swimming pool water - Trichloroisocyanuric acid

Produkte zur Aufbereitung von Schwimm- und Badebeckenwasser - Trichlorisocyanursäure

Produits chimiques utilisés pour le traitement de l'eau des piscines - Acide trichloroisocyanurique

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

[SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8110a892ca18/sist-en-15032-2006a1-2008)

**Ta slovenski standard je istoveten z: EN 15032:2006+A1:2008**

---

**ICS:**

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

**SIST EN 15032:2006+A1:2008**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 15032:2006+A1:2008

<https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008>

EUROPEAN STANDARD

**EN 15032:2006+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2008

ICS 71.100.80

Supersedes EN 15032:2006

English Version

## Chemicals used for treatment of swimming pool water - Trichloroisocyanuric acid

Produits chimiques utilisés pour le traitement de l'eau des  
piscines - Acide trichloroisocyanurique

Produkte zur Aufbereitung von Schwimm- und  
Badebeckenwasser - Trichlorisocyanursäure

This European Standard was approved by CEN on 5 June 2006 and includes Amendment 1 approved by CEN on 11 January 2008.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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.

[SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008)

<https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008>



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

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

<b>Contents</b>		Page
Foreword.....		3
Introduction .....		4
1 <b>Scope</b> .....		5
2 <b>Normative reference</b> .....		5
3 <b>Description</b> .....		5
4 <b>Purity criteria</b> .....		5
5 <b>Test methods</b> .....		6
6 <b>Labelling - Transportation - Storage</b> .....		6
Annex A (informative) <b>General information on trichloroisocyanuric acid</b> .....		9
Annex B (normative) <b>General rules relating to safety</b> .....		11
Bibliography .....		12

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

[SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008)

<https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008>

## Foreword

This document (EN 15032:2006+A1:2008) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2008 and conflicting national standards shall be withdrawn at the latest by August 2008.

This document includes Amendment 1 approved by CEN on 2008-01-11.

This document supersedes EN 15032:2006.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, 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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008)  
<https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008>

**EN 15032:2006+A1:2008 (E)****Introduction**

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

- 1) 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;
- 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.

NOTE Conformity with the 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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 15032:2006+A1:2008  
<https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008>

## 1 Scope

This European Standard is applicable to trichloroisocyanuric acid used directly or used to prepare commercial formulations for disinfecting swimming pool water. It describes the characteristics of trichloroisocyanuric acid and specifies the requirements and the corresponding test methods for trichloroisocyanuric acid. It gives information on its use for treating swimming pool water and determines the rules relating to safe handling and use (see Annex B).

## 2 Normative reference

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 12933, *Chemicals used for treatment of water intended for human consumption — Chemicals for emergency use — Trichloroisocyanuric acid*

## 3 Description

The identification, commercial form, physical properties and chemical properties are given in the relevant sub-clauses of EN 12933.

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

## 4 Purity criteria

### 4.1 General

[SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f1e89311f51/en-15032-2006-a1-2008)

[https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f1e89311f51/en-15032-2006-a1-2008)

[8f1e89311f51/en-15032-2006-a1-2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f1e89311f51/en-15032-2006-a1-2008)  
This European Standard specifies the minimum purity requirements for trichloroisocyanuric acid used for the treating swimming pool water. Limits are given for impurities commonly present in this product and depending on the raw material and the manufacturing process, other impurities may be present and if so, the user and when necessary, the relevant authorities shall be notified.

**NOTE** Users of the product should check the national regulations in order to clarify whether it is of appropriate purity for treating swimming pool water, taking into account 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 chemical parameters where they 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 the presence of significant quantities of other impure by-products or additives being present, the user shall be notified.

### 4.2 Composition of commercial product

The commercial product shall contain at least a mass fraction of 89 % of available chlorine as calculated in accordance with the corresponding method given in EN 12933.

### 4.3 Impurities and main by-products

The water content shall be less than a mass fraction of 0,15 % of the product.

**EN 15032:2006+A1:2008 (E)****4.4 Chemical parameters**

The content of arsenic, cadmium, chromium, mercury, nickel, lead, antimony and selenium for the two types of product shall conform to the requirements specified in EN 12933.

NOTE Cyanide (CN<sup>-</sup>), which does not exist in a strong oxidizing medium such as trichloroisocyanuric acid, is not a relevant chemical parameter and as the raw materials used in the manufacturing process are free of pesticides and polycyclic aromatic hydrocarbons, they are not relevant.

**5 Test methods**

The sampling and the analytical methods are those described in EN 12933.

**6 Labelling - Transportation - Storage****6.1 Means of delivery**

The product shall be delivered in fibre, polyethylene drums or semi-bulk containers.

To ensure the purity of the product, the means of delivery shall not have previously been used for any different product or it shall have been specially cleaned and prepared before use.

**6.2 Risk and safety labelling according to the EU directives<sup>1)</sup>**

The following labelling requirements shall apply to trichloroisocyanuric acid at the publication date of this European Standard.

- STANDARD PREVIEW**  
(standards.iteh.ai)
- [SIST EN 15032:2006+A1:2008](https://standards.iteh.ai/catalog/standards/sist/f7ad07d3-696b-4378-85b1-8f16a892eaf8/sist-en-15032-2006a1-2008)
- Symbols and indications of danger:
    - O: Oxidizing;
    - Xn: Harmful;
    - N: Dangerous for the environment.
  - Nature of special risks attributed to dangerous substances:
    - R8: Contact with combustible material may cause fire;
    - R22: Harmful if swallowed;
    - R31: Contact with acids liberates toxic gas;
    - R36/37: Irritating to eyes and respiratory system;
    - R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - Safety advice concerning dangerous substances:
    - S8: Keep container dry;

---

<sup>1)</sup> See [1]



- S26: In case of contact with eyes, rinse immediately with water and seek medical advice;
- S41: In case of fire and/or explosion do not breathe fumes;
- S60: This material and its container must be disposed of as hazardous waste;
- S 61: Avoid release to the environment. Refer to special instructions /Safety data sheets.

NOTE Annex I of the directive 67/548/EEC ([1]) on classification, packaging and labelling of dangerous substances and its amendments and adaptations in the European Union contains a list of substances classified by the EU. Substances not in this Annex I should be classified on the basis of their intrinsic properties according to the criteria in the Directive by the person responsible for the marketing of the substance.

### 6.3 Transportation regulations and labelling

Trichloroisocyanuric acid is listed as UN Number <sup>2)</sup> 2468 and classified as dangerous good.

- RID <sup>3)</sup> : class 5.1, classification code O2; packing group II;
- ADR <sup>4)</sup> : class 5.1, classification code O2; packing group II;
- IMDG <sup>5)</sup> : class 5.1;
- IATA <sup>6)</sup> : class 5.1.

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

### 6.4 Marking

The marking shall include the following information:

- name "trichloroisocyanuric acid", trade name and type;
- net mass;
- name and the address of supplier and/or manufacturer;
- statement "this product conforms to EN 15032".

### 6.5 Storage

#### 6.5.1 General

The product shall be stored in its original package, firmly closed in a cool dry place, away from any sources of heat or incompatible materials.

- 
- 2) United Nations Number.
  - 3) Regulations concerning International carriage of Dangerous goods by rail.
  - 4) European Agreement concerning the international carriage of Dangerous goods by Road.
  - 5) International maritime transport of Dangerous Goods.
  - 6) International Air Transport Association.