



SLOVENSKI STANDARD
oSIST prEN 16381:2012
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Kemikalije, ki se uporabljajo za pripravo bazenske vode - Natrijev peroksidisulfat

Chemicals used for treatment of swimming pool water - Sodium peroxodisulfate

Produkte zur Aufbereitung von Schwimm- und Badebeckenwasser -
Natriumperoxodisulfat

Produits chimiques utilisés pour le traitement de l'eau des piscines - Peroxodisulfate de
sodium

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Chemicals used for treatment of swimming pool water - Sodium peroxodisulfate

Produits chimiques utilisés pour le traitement de l'eau des piscines - Peroxodisulfate de sodium

Produkte zur Aufbereitung von Schwimm- und Badebeckenwasser - Natriumperoxodisulfat

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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prEN 16381:2012 (E)

Foreword

This document (prEN 16381:2012) 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.

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Introduction

In respect of potential adverse effects on the quality of water for swimming pools, 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.

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1 Scope

This European Standard is applicable to sodium peroxodisulfate used for treatment of water for swimming pools. It describes the characteristics of sodium peroxodisulfate and specifies the requirements and the corresponding test methods for sodium peroxodisulfate. 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 12926, *Chemicals used for treatment of water intended for human consumption — Sodium peroxodisulfate*

3 Description

3.1 Identification

3.1.1 Chemical name

Sodium peroxodisulfate.

3.1.2 Synonym or common name

Sodium persulfate.

3.1.3 Relative molecular mass

238,11.

3.1.4 Empirical formula

$\text{Na}_2\text{S}_2\text{O}_8$.

3.1.5 Chemical formula

$\text{Na}_2\text{S}_2\text{O}_8$.

3.1.6 CAS Registry Number

7775-27-1.

3.1.7 EINECS reference

231-892-1.

3.2 Commercial form

Sodium peroxodisulfate is available as a crystalline powder.

3.3 Physical properties

3.3.1 Appearance and odour

The product is white, odourless, crystalline free-flowing salt.

3.3.2 Density

The bulk density of the product is approximately 1,15 g/cm³.

3.3.3 Solubility in water

The solubility of the product in water is approximately :

- 515 g/l at 10 °C;
- 545 g/l at 20 °C;
- 605 g/l at 40 °C;
- 680 g/l at 60 °C.

3.3.4 Vapour pressure

Not applicable.

3.3.5 Boiling point at 100 kPa 3)

Not applicable.

3.3.6 Melting point

The product decomposes above 65 °C.

3.3.7 Specific heat

Not known.

3.3.8 Viscosity (dynamic)

Not applicable.

3.3.9 Critical temperature

Not applicable.

3.3.10 Critical pressure

Not applicable.

3.3.11 Physical hardness

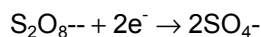
Not applicable.

prEN 16381:2012 (E)**3.4 Chemical properties**

Sodium peroxodisulfate is a powerful oxidizing agent.

Sodium peroxodisulfate also serves as a source of radicals.

The standard reduction potential E_0 sodium peroxodisulfate for the reaction :



is + 2,06 V at 25 °C.

4 Purity criteria**4.1 General**

This European Standard specifies the minimum purity requirements for Sodium peroxodisulfate 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 the product standard.

Limits have been given for impurities and chemicals 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.

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4.2 Composition of commercial product

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The commercial product shall contain not less than a mass fraction of 99 percent of $\text{Na}_2\text{S}_2\text{O}_8$.

4.3 Impurities and main by-products

Sodium peroxodisulfate does not contain significant concentrations of impurities or by-products.

4.4 Chemical parameters

NOTE For the purpose of this European Standard, “chemical parameters” are those defined in the EU Directive 98/83/EC of 3 November 1998 (see [1]).

The content of chemical parameters shall conform to the requirements specified in Table 1.