SLOVENSKI STANDARD
SIST EN 1197:2014

01-junij-2014

Nadomešča:
SIST EN 1197:2007

Kemikalije, ki se uporabljajo za pripravo pitne vode - Raztopina monocinkfosfata

Chemicals used for treatment of water intended for human consumption - Monozinc phosphate solution

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Monozinkphosphat-Lösung

Produits chimiques pour le traitement de l'eau destinée à la consommation humaine - Bis -dihydrogénophosphate de zinc en solution

Ta slovenski standard je istoveten z: **EN 1197:2014**

ICS:

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

SIST EN 1197:2014 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1197

March 2014

ICS 71.100.80

Supersedes EN 1197:2006

English Version

Chemicals used for treatment of water intended for human consumption - Monozinc phosphate solution

Produits chimiques pour le traitement de l'eau destinée à la consommation humaine - Bis-dihydrogénophosphate de zinc en solution

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Monozinkphosphat-Lösung

This European Standard was approved by CEN on 5 January 2014.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword

This document (EN 1197:2014) 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 September 2014 and conflicting national standards shall be withdrawn at the latest by September 2014.

This document supersedes EN 1197:2006.

Significant technical differences between this edition and EN 1197:2006 are as follows:

— replacement of warning and safety precautions notes by labelling according to REGULATION (EC) No 1272/2008.

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

WARNING. The use of this standard may involve hazardous materials, operations and equipment. This standard does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, 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.

1 Scope

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

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1233, *Water quality - Determination of chromium - Atomic absorption spectrometric methods*

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*

EN ISO 5961, *Water quality - Determination of cadmium by atomic absorption spectrometry (ISO 5961:1994)*

EN ISO 11885, *Water quality - Determination of selected elements by inductively coupled plasma optical emission spectrometry (ICP-OES) (ISO 11885:2007)*

EN ISO 11969, *Water quality - Determination of arsenic - Atomic absorption spectrometric method (hydride technique) (ISO 11969:1996)*

EN ISO 12846, *Water quality - Determination of mercury - Method using atomic absorption spectrometry (AAS) with and without enrichment (ISO 12846:2012)*

ISO 2997, *Phosphoric acid for industrial use — Determination of sulphate content — Method by reduction and titrimetry*

ISO 3165, *Sampling of chemical products for industrial use — Safety in sampling*

ISO 3360, *Phosphoric acid and sodium phosphates for industrial use (including foodstuffs) — Determination of fluorine content — Alizarin complexone and lanthanum nitrate photometric method*

ISO 3706, *Phosphoric acid for industrial use (including foodstuffs) — Determination of total phosphorus (V) oxide content — Quinoline phosphomolybdate gravimetric method*

ISO 6206, *Chemical products for industrial use — Sampling — Vocabulary*

ISO 6703-1, *Water quality — Determination of cyanide — Part 1: Determination of total cyanide*

ISO 8288:1986, *Water quality — Determination of cobalt, nickel, copper, zinc, cadmium and lead — Flame atomic absorption spectrometric methods*

ISO 9965, *Water quality — Determination of selenium — Atomic absorption spectrometric method (hydride technique)*

3 Description

3.1 Identification

3.1.1 Chemical name

Monozinc phosphate solution.

3.1.2 Synonym or common name

Not applicable.

3.1.3 Relative molecular mass

Not applicable.

3.1.4 Empirical formula

$Zn(H_2PO_4)_2$ (Solution).

3.1.5 Chemical formula

$Zn(H_2PO_4)_2$ (Solution).

3.1.6 CAS Registry Number [1)]

13598-37-3.

3.1.7 EINECS reference [2)]

237-067-2.

3.2 Commercial form

The monozinc phosphate is available as a solution; commonly used concentration is 500 g/l.

3.3 Physical properties

3.3.1 Appearance

The product is a clear solution.

3.3.2 Density

The density at 20 °C is 1,7 g/ml for a concentration of 500 g/l.

3.3.3 Solubility in water

Miscible in any proportion.

3.3.4 Vapour pressure

Not applicable.

3.3.5 Boiling point at 100 kPa [3)]

Not applicable.

---

1) Chemical Abstracts Service Registry Number.

2) European Inventory of Existing Commercial Chemical Substances.

3) 100 kPa = 1 bar

3.3.6 Melting point

Not applicable.

3.3.7 Specific heat

Not known.

3.3.8 Viscosity (dynamic)

180 mPa·s for a concentration of 500 g/l at 20 °C.

3.3.9 Critical temperature

Not applicable.

3.3.10 Critical pressure

Not applicable.

3.3.11 Physical hardness

Not applicable.

3.4 Chemical properties

Solutions of monozinc phosphate have acidic reactions.

The pH value of a solution containing 5 g/l of Zn $(H_2PO_4)_2$ is approximately 2,1.

4 Purity criteria

4.1 General

This European Standard specifies the minimum purity requirements for monozinc phosphate solution 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.

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 products not stated in this 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 lead 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 following requirements for the solution:

— phosphate content expressed as P_2O_5: mass fraction of (39 ± 2,0) %;

— zinc oxide content: mass fraction of (15 ± 1,0) %.