

STN	Chemikálie používané pri úprave vody na pitnú vodu. Etanol.	STN EN 13176 75 8410
------------	--	--

Chemicals used for treatment of water intended for human consumption - Ethanol

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/15

Obsahuje: EN 13176:2015

Oznámením tejto normy sa ruší
STN EN 13176 (75 8410) z decembra 2008

120990



Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2015
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

English Version

Chemicals used for treatment of water intended for human consumption - Ethanol

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

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Ethanol

This European Standard was approved by CEN on 20 December 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.....		5
Introduction		6
1 Scope		7
2 Normative references		7
3 Description		7
3.1 Identification.....		7
3.1.1 Chemical name.....		7
3.1.2 Synonym or common name.....		7
3.1.3 Relative molecular mass.....		7
3.1.4 Empirical formula.....		8
3.1.5 Chemical formula.....		8
3.1.6 CAS Registry Number).....		8
3.1.7 EINECS reference).....		8
3.2 Commercial form		8
3.3 Physical properties.....		8
3.3.1 Appearance		8
3.3.2 Density		8
3.3.3 Solubility in water		9
3.3.4 Vapour pressure (at 20 °C).....		9
3.3.5 Boiling point at 100 kPa).....		9
3.3.6 Melting point.....		9
3.3.7 Specific heat.....		9
3.3.8 Viscosity, dynamic.....		9
3.3.9 Critical temperature (for gas)		9
3.3.10 Critical pressure (for gas)		9
3.3.11 Physical hardness		9
3.4 Chemical properties		9
4 Purity criteria.....		9
4.1 General.....		9
4.2 Composition of commercial product		10
4.3 Impurities and main by-products		10
4.4 Chemical parameters		10
5 Test methods.....		10
5.1 Sampling		10
5.1.1 Relevant standards.....		10
5.1.2 Sampling from drums and bottles		10
5.1.3 Sampling from tanks and tankers		11
5.2 Analysis		11
5.2.1 Ethanol (main product)		11
5.2.2 Impurities		12
5.2.3 Chemical parameters		14
6 Labelling - Transportation - Storage.....		17
6.1 Means of delivery.....		17
6.2 Labelling according to the EU legislation).....		17
6.3 Transportation regulations and labelling		17
6.4 Marking		18
6.5 Storage.....		18

6.5.1	General	18
6.5.2	Long term stability	18
6.5.3	Storage incompatibilities	18
Annex A (informative) General information on synthetic ethanol		19
A.1	Origin	19
A.2	Use	19
Annex B (normative) General rules relating to safety		20
B.1	Rules for safe handling and use	20
B.2	Emergency procedures	20
Bibliography		21
Foreword		5
Introduction		6
1	Scope	7
2	Normative references	7
3	Description	7
3.1	Identification	7
3.1.1	Chemical name	7
3.1.2	Synonym or common name	7
3.1.3	Relative molecular mass	7
3.1.4	Empirical formula	8
3.1.5	Chemical formula	8
3.1.6	CAS Registry Number)	8
3.1.7	EINECS reference)	8
3.2	Commercial form	8
3.3	Physical properties	8
3.3.1	Appearance	8
3.3.2	Density	8
3.3.3	Solubility in water	9
3.3.4	Vapour pressure (at 20 °C)	9
3.3.5	Boiling point at 100 kPa)	9
3.3.6	Melting point	9
3.3.7	Specific heat	9
3.3.8	Viscosity, dynamic	9
3.3.9	Critical temperature (for gas)	9
3.3.10	Critical pressure (for gas)	9
3.3.11	Physical hardness	9
3.4	Chemical properties	9
4	Purity criteria	9
4.1	General	9
4.2	Composition of commercial product	10
4.3	Impurities and main by-products	10
4.4	Chemical parameters	10
5	Test methods	10
5.1	Sampling	10
5.1.1	Relevant standards	10
5.1.2	Sampling from drums and bottles	10
5.1.3	Sampling from tanks and tankers	11
5.2	Analysis	11
5.2.1	Ethanol (main product)	11

5.2.2	Impurities	12
5.2.3	Chemical parameters	14
6	Labelling - Transportation - Storage	17
6.1	Means of delivery	17
6.2	Labelling according to the EU legislation)	17
6.3	Transportation regulations and labelling	17
6.4	Marking	18
6.5	Storage	18
6.5.1	General	18
6.5.2	Long term stability	18
6.5.3	Storage incompatibilities	18
Annex A (informative) General information on synthetic ethanol		19
A.1	Origin	19
A.1.1	Raw materials	19
A.1.2	Manufacturing process	19
A.2	Use	19
A.2.1	Function	19
A.2.2	Form in which it is used	19
A.2.3	Treatment dose	19
A.2.4	Means of application	19
A.2.5	Secondary effects	19
A.2.6	Removal of excess product	19
Annex B (normative) General rules relating to safety		20
B.1	Rules for safe handling and use	20
B.2	Emergency procedures	20
B.2.1	First aid	20
B.2.2	Spillage	20
B.2.3	Fire	20
Bibliography		21

Foreword

This document (EN 13176:2015) 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 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

This document supersedes EN 13176:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Significant technical difference between this edition and EN 13176:2008 is as follows:

- a) deletion of reference to EU Directive 67/548/EEC of June 27, 1967 in order to take into account the latest Regulation in force (see [2]);
- b) 6.2 – updating of risk and safety labelling according to EU Regulation [2] and its latest Adaptations to Technical Progress).

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.

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 synthetic ethanol used for treatment of water intended for human consumption. It describes the characteristics of synthetic ethanol and specifies the requirements and the corresponding test methods for synthetic ethanol. It gives information on its use in water treatment.

NOTE This European Standard does not apply to anhydrous ethanol which is not used for drinking 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 12846, *Water quality - Determination of mercury - Method using atomic absorption spectrometry (AAS) with and without enrichment (ISO 12846)*

EN 26595, *Water quality — Determination of total arsenic — Silver diethyldithiocarbamate spectrophotometric method (ISO 6595)*

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

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

ISO 3856-2, *Paints and varnishes — Determination of "soluble" metal content — Part 2: Determination of antimony content — Flame atomic absorption spectrometric method and Rhodamine B spectrophotometric method*

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

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)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN