

Chemicals used for treatment of water intended for human consumption — Methanol

The European Standard EN 13177:2002 has the status of a
British Standard

ICS 71.100; 71.100.80

National foreword

This British Standard is the official English language version of EN 13177:2002. The UK participation in its preparation was entrusted to Technical Committee CII/59, Chemicals for drinking water treatment, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Additional information

The United Kingdom voted against the acceptance of this standard at the Formal Vote stage because a new clause (A.3) concerning toxicological aspects, which are of little relevance to a specification for methanol, has been added. It is considered that there are several inaccuracies in the statement concerning the United States Environmental Protection Agency (USEPA) in A.3, as follows.

- a) MCL is “Maximum Contaminant Level”, not “Maximum Concentration Level”.
- b) “MCGL” should be “MCLG”, which is “Maximum Contaminant Level Goal”.
- c) USEPA does not define any limits for methanol in drinking water (neither MCL nor MCLG).

Article 10 of the Council of the European Community Directive 98/83/EC on the quality of water intended for human consumption requires Member States to ensure that substances and materials (including associated impurities) used in the preparation of drinking water do not remain in treated water at concentrations that are higher than necessary or that would reduce the protection of public health provided for in the Directive.

This requirement is given effect in England and Wales by regulation 25 of the Water Supply (Water Quality) Regulations 1989 (similar provisions apply in Scotland and Northern Ireland). Regulation 25 makes provision for attaching conditions of use to chemicals and filter media that are authorized for use in public water supplies.

Details of conditions of use are contained in the *List of Products and Processes Approved Under Regulations 25 and 26 For Use In Connection With The Supply of Water For Drinking, Washing, Cooking and Food Production Purposes* published by the Drinking Water Inspectorate, Floor 2/A1, Ashdown House, 123 Victoria Street, London SW1 6DE (www.dwi.gov.uk).

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 20, an inside back cover and a back cover.

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Amendments issued since publication

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English version

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

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

Produkte zur Aufbereitung von Wasser für den
menschlichen Gebrauch - Methanol

This European Standard was approved by CEN on 25 July 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document EN 13177:2002 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 March 2003, and conflicting national standards shall be withdrawn at the latest by March 2003.

Annex A is informative.

Annex B is normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland 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 standard:

- a) this standard provides no information as to whether the product can 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.

1 Scope

This European Standard is applicable to synthetic methanol used for treatment of water intended for human consumption. It specifies the characteristics of synthetic methanol and specifies the requirements and the corresponding test methods for synthetic methanol. Annex A gives information on its use in water treatment.

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 European Standard is subject to regulation or control by National Authorities.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 1483, *Water quality - Determination of mercury*.

EN ISO 3696:1995, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*.

EN 26595, *Water quality - Determination of total arsenic - Silver diethyldithiocarbamate spectrophotometric method (ISO 6595:1982)*.

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 9174, *Water quality - Determination of chromium - 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

Methanol.

3.1.2 Synonym or common names

Methyl alcohol, carbinol.

3.1.3 Relative molecular mass

32,04.

3.1.4 Empirical formula

CH₄O.

3.1.5 Chemical formula

CH₃OH.

3.1.6 CAS Registry Number ¹⁾

67-56-1.

3.1.7 EINECS reference ²⁾

200-65-96.

3.2 Commercial form

The product is available as colourless liquid.

3.3 Physical properties

3.3.1 Appearance

The product is a colourless liquid at 20 °C.

3.3.2 Density

The density at 20 °C is given in Table 1 (see [3] and [4]).

Table 1 — Density

Concentration mass fraction of methanol, %	Density g/ml
90	0,8219
92	0,8163
94	0,8103
96	0,8048
98	0,7990
99,85	0,7936
100	0,7931

3.3.3 Solubility in water

Miscible.

3.3.4 Vapour pressure

12,7 kPa at 20 °C (for pure methanol).

¹⁾ Chemical Abstracts Service Registry Number.

²⁾ European Inventory of Existing Commercial Chemical Substances.