

Influence of organic materials on water intended for human consumption - Determination of odour and flavour assessment of water in piping systems - Part 1: Test method

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1420-1:2000 sisaldab Euroopa standardi EN 1420-1:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1420-1:2000 consists of the English text of the European standard EN 1420-1:1999.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This standard specifies a test method for determining the odour and flavour of test waters after their contact with the organic materials used in piping systems, where the term products comprises pipes, fittings and ancillaries including their coatings and joints. The test method described in this standard is applicable to products to be used under various conditions for the transport of water intended for human consumption and raw waters used for the manufacture of water intended for human consumption. Coatings or protective layers on products which are not intended to be in contact with these types of water are not covered by this method. This standard specifies the test method comprising a set of procedures with and without a disinfection pretreatment and possible temperatures for the test waters. The use of the disinfection pretreatment and the choice of the test temperature are dependent on the relevant national regulations and/or system or product standards.</p>	<p>Scope: This standard specifies a test method for determining the odour and flavour of test waters after their contact with the organic materials used in piping systems, where the term products comprises pipes, fittings and ancillaries including their coatings and joints. The test method described in this standard is applicable to products to be used under various conditions for the transport of water intended for human consumption and raw waters used for the manufacture of water intended for human consumption. Coatings or protective layers on products which are not intended to be in contact with these types of water are not covered by this method. This standard specifies the test method comprising a set of procedures with and without a disinfection pretreatment and possible temperatures for the test waters. The use of the disinfection pretreatment and the choice of the test temperature are dependent on the relevant national regulations and/or system or product standards.</p>
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Võtmesõnad: coatings, estimation, odours, organic matter, pipe fittings, potable water, taste, tests, tubes, water, water pipelines, water pollution

ICS 13.060.20

English version

Influence of organic materials on water intended for human consumption
**Determination of odour and flavour assessment of water
in piping systems**
Part 1: Test method

Influence des matériaux organiques
sur l'eau destinée à la consommation
humaine – Détermination de
l'odeur et de la saveur de l'eau
dans les réseaux de conduites –
Partie 1: Méthode d'essai

Einfluß von Werkstoffen auf Wasser
für den menschlichen Gebrauch –
Bestimmung des Geruchs und Ge-
schmacks von Wasser in Rohr-
leitungssystemen –
Teil 1: Prüfverfahren

This European Standard was approved by CEN on 1999-08-01.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard 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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

This European Standard consists of two parts :

- Part 1 : Test method
- Part 2 : Interpretation of laboratory values relative to field-use conditions

This standard is part 1. It contains the following two annexes :

- annex A, which is informative, describes an arrangement for flushing large diameter pipes ;
- annex B, which is informative, is a schematic presentation of the test method.

The material-dependent parameters and/or performance requirements are incorporated into the Product Standards, for example the System Standards for plastics piping systems.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

In respect of potential adverse effects on the quality of the water intended for human consumption caused by the materials, it is recalled to mind that, while awaiting the adoption of verifiable European acceptance criteria, national regulations remain in force

1 Scope

This standard specifies a test method for determining the odour and flavour of test waters after their contact with the organic materials used in piping systems, where the term products comprises pipes, fittings and ancillaries including their coatings and joints.

The test method described in this standard is applicable to products to be used under various conditions for the transport of water intended for human consumption and raw water used for the manufacture of water intended for human consumption. Coatings or protective layers on products which are not intended to be in contact with these types of water are not covered by this method.

This standard specifies the test method comprising a set of procedures with and without a disinfection pretreatment and possible temperatures for the test waters. The use of the disinfection pretreatment and the choice of the test temperature are dependent on the relevant national regulations and/or the system or product standards.

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.

ISO 5492, *Sensory analysis – Vocabulary*.

ISO 7393-2, *Water quality - Determination of free chlorine and total chlorine - Part 2 : Colorimetric method using N,N-diethyl- 1,4-phenylenediamine for routine control purposes*.

EN 1622:1997, *Water analysis - Method for the determination of threshold odour number (TON) and threshold flavour number (TFN)*.

3 Terms and definitions

For the purposes of this standard the following definitions apply.

3.1

odour

organoleptic attribute perceptible by olfactory organ on sniffing certain volatile substances (ISO 5492)

3.2

flavour

complex combination of the olfactory, gustatory and trigeminal sensations perceived during tasting. The flavour may be influenced by tactile, thermal, painful and/or kinaesthetic effects (ISO 5492)

NOTE The term taste should not be used to designate the combination of gustatory, olfactory and trigeminal sensations which are designated by the term flavour. If, in informal language, this term is used in this sense, it should always be associated with a qualifying term, e.g. musty taste, raspberry taste, corky taste.

3.3

threshold odour number (TON)

dilution ratio of the migration water with the reference water at the same temperature, beyond which this diluted sample does not have any perceptible odour

3.4

threshold flavour number (TFN)

dilution ratio of the migration water with the reference water at the same temperature, beyond which this sample does not have any perceptible flavour