

STN	Identifikácia organických látok vylúhovateľných vodou z materiálov v kontakte s pitnou vodou metódou GC-MS.	STN EN 15768 75 8735
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Influence of materials on water intended for human consumption - GC-MS identification of water leachable organic substances

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

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English Version

Influence of materials on water intended for human consumption - GC-MS identification of water leachable organic substances

Influence sur l'eau des matériaux en contact avec l'eau destinée à la consommation humaine - Identification par GC-SM de substances organiques lixiviables à l'eau

Identifizierung mittels GC-MS von durch Wasser auslaugbaren organischen Substanzen aus Materialien für den Kontakt mit Trinkwasser

This European Standard was approved by CEN on 29 November 2014.

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Foreword

This document (EN 15768:2015) 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of an identical text or by endorsement, at the latest by July 2015 and conflicting national standards shall be withdrawn at the latest by July 2015.

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.

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This document describes methods of identification only, and should not be used or quoted as a specification.

References to this document should indicate that the methods of identification used are in accordance with EN 15678:2015.

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Introduction

Organic substances that migrate from products containing such substances have, when used in contact with water intended for human consumption, the potential to cause health concerns for consumers. The potential health effects of these chemicals are assessed in three stages as follows:

- a) preparation of migration waters by exposing a portion of the material to water under controlled conditions;
- b) analysis of the migration waters;
- c) assessment of the identities and concentrations of the substance detected.

The analysis of organic substances present in migration waters can involve two different types of analytical methods as follows:

- d) a screening method, which allows a variety of substances to be detected and a semi-quantitative assessment to be made of their concentrations;
- e) accurate quantitative methods for the determination of specific target substances known to be present in the chemical formulations of the materials.

This standard describes the analytical procedures based upon gas chromatography and mass spectrometry (GC-MS) used to screen migration waters for organic substances derived from finished products such as pipes, protective coatings, membranes, etc. This method is suitable for migration waters from all products that can potentially release organic chemicals into water when they are used in contact with water intended for human consumption, and which are the subject of an application for approval by the national regulatory body. It may be one of several methods that form part of the overall approval process. The method may also be used as part of an approval audit process. The method does not provide accurate quantitative results and other analytical methods are recommended for accurate quantitative determination of specific target substances.

1 Scope

This European Standard describes a method for detecting and identifying organic chemicals that are amenable to GC-MS analysis using the procedures described and which can migrate from a product into water intended for human consumption. This European Standard does not provide all the necessary tools to completely identify all the substances that are detected. A method of semi-quantitatively estimating the concentrations of the organic substances detected is also provided, however, concentrations should only be seen as indicative.

NOTE The method to be used for the preparation of migration waters is specified by separate ENs, as noted below.

2 Normative references

EN 12873-1, *Influence of materials on water intended for human consumption - Influence due to migration - Part 1: Test method for factory-made products made from or incorporating organic or glassy (porcelain/vitreous enamel) materials*

EN 12873-2, *Influence of materials on water intended for human consumption - Influence due to migration - Part 2: Test method for non-metallic and non-cementitious site-applied materials*

EN 12873-3, *Influence of materials on water intended for human consumption - Influence due to migration - Part 3: Test method for ion exchange and adsorbent resins*

EN 12873-4, *Influence of materials on water intended for human consumption - Influence due to migration - Part 4: Test method for water treatment membranes*

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

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