SS 375:Part 2:5:2015(2024)+A1:2024
BS 6920-2.5:2000+A2:2014, IDT
(ICS 13.060.20)

SINGAPORE STANDARD

Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on the quality of the water

– Part 2:5: Methods of test – The extraction of substances that may be of concern to public

Incorporating Amendment No. 1

Confirmed 2024

Singapore Standards Council

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Contents

National Foreword

This Singapore Standard was prepared by the Working Group on Water Quality set up by the Technical Committee on Water under the purview of the Environment and Resources Standards Committee.

This standard is a confirmation of SS 375: Part 2:5: 2015. It is an identical adoption of BS 6920-2.5:2000 + A2: 2014, "Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2:5: Methods of test – The extraction of substances that may be of concern to public", published by the British Standards Institution. It incorporates Amendment No.1, denoted by A1 and A1 .

The following editorial changes were made:

Clauses/Subclauses	Modification
Clause 1 – NOTE;	*Deleted the reference to UK regulations*
Bibliography – Other publications	*Explanation: These regulations are not applicable to Singapore.*

Wherever appropriate, the words 'British Standard' have been replaced by 'Singapore Standard'. The references to BS 6920 series have been replaced by the following Singapore Standards:

BS 6920 Series	Corresponding Singapore Standard
BS 6920	SS 375
BS 6920-2	SS 375: Part 2
BS 6920-2.1: 2014	SS 375: Part 2:1: 2015
BS 6920-2.5	SS 375: Part 2:5
BS 6920-3	SS 375: Part 3

NOTE 1 – Where appropriate, the words "British Standard" are read as "Singapore Standard".

NOTE 2 – Reference to International/Overseas Standards are replaced by applicable Singapore Standards or Technical References.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review, unless there are requests to review such standards.*

2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*

3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Foreword

Publishing information

This subsection of BS 6920 is published by BSI Standards Limited, under license from The British Standards Institution and came into effect on 15 May 2000. It was prepared by Technical Committee EH/6, *Effects of materials on water quality*.

Supersession

BS 6920-2.5:2000 + A2:2014 supersedes BS 6920-2.5:2000, Incorporating Amendment 1, which is withdrawn.

Relationship with other publications

BS 6920 is published in several parts, namely *Part 1: Specification, Part 2: Methods of test, Part 3: High temperature tests* and *Part 4: Method for the GCMS identification of water leachable organic substances.*

Part 2 is further subdivided into a number of sections and subsections as follows.

Section 2.1: Samples for testing;
Section 2.2: Odour and flavor of water;
Subsection 2.2.1: General method of test;
Subsection 2.2.2: Method of testing odours and flavours imparted to water by multi-layered hoses and pipes;
Subsection 2.2.3: Method of testing odours and flavours imparted to water by hoses for conveying water for food and drink preparation;
Section 2.3: Appearance of water;
Section 2.4: Growth of aquatic microorganisms test;
Section 2.5: The extraction of substances that may be of concern to public health;
Section 2.6: The extraction of metals.

Information about this document

This edition introduces technical changes but it does not reflect a full review or revision of the standard.

Hazard warnings

WARNING. This British Standard calls for the use of substances and/or procedures that can be injurious to the health if adequate precautions are not taken.

As well as observing safe working practices, take particular care in handling continuous cell lines since they can become infected with pathogenic viruses and bacteria during the course of their manipulation. The nutrient media used in this test are capable of supporting microbial growth, and the cell line is capable of being infected by human viruses. It is essential that this test procedure is carried out only by persons with experience of mammalian tissue culture techniques and cell like morphology.

This British Standard refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

Contractual and legal considerations

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 cannot confer immunity from legal obligations.

Introduction

This section of SS 375 describes a simple cytotoxicity technique to test leachates from materials and articles, used in customer's premises in contact with water for human consumption, for biologically active compounds. Materials and chemicals used by water suppliers are subjected to a fuller assessment using an extraction procedure followed by sophisticated analytical methods.

This method should be regarded as only an initial screening test for substances potentially hazardous to health. A satisfactory result indicates that the leachate probably does not contain significant amounts of acutely toxic substances, but it does not indicate the absence of small quantities of substances which may be harmful on prolonged exposure.

Suitability of non-metallic [A1] materials [A1] and products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2:5: Methods of test – The extraction of substances that may be of concern to public health

1 Scope

This section of SS 375 specifies a screening procedure (simple cytotoxicity test) using a mammalian cell line and a leachate from a product. The results of this procedure will assist in the toxicological assessment of the product for use in contact with water intended for human consumption.

The procedure given in this section of SS 375 is suitable for all non-metallic materials that may be used in contact with water intended for human consumption.

NOTE The National Regulator may specify additional provisions in some cases and will assess the significance of the results obtained.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of SS 375. For dated references, subsequent amendments to or revisions of any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 748, *Specification for haemacytometer and particle counting chambers*.

SS 375 : Part 2:1 : 2015, *Suitability of non-metallic [A1] materials [A1] and products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2:1: Methods of test – Samples for testing*.

[A1] ISO 3696, *Water for analytical laboratory use – Specification and test methods.*[A1]