

Methanol for industrial use —

Part 1: Specification for methanol

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the chemicals Standards Committee (CIC/-) to Technical Committee CIC/51, upon which the following bodies were represented:

British Pharmacopoeia Commission
 British Society of Perfumers
 Chemical Industries Association
 Department of Trade and Industry (Laboratory of the Government Chemist)
 Royal Society of Chemistry

This British Standard, having been prepared under the direction of the Chemicals Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 January 1987

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The following BSI references relate to the work on this standard:
 committee references CIC/51
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Amendments issued since publication

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Foreword

This Part of BS 506, which has been prepared under the direction of the Chemicals Standards Committee, comprises a specification for methanol to meet the requirements of a wide range of industrial users.

First published in 1933, BS 506 was last revised in 1966 and was subsequently amended to become BS 506-1. In this revision of BS 506-1, the requirements for aldehydes and ketones content, sulphur compounds, and the permanganate test have been replaced by one for density at 20 °C and there is now a requirement for water content. In addition, the test methods associated with the specification are now published as BS 506-2.

This standard supersedes BS 506-1:1966, which is withdrawn.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 and 2, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies requirements for methanol suitable for industrial purposes.

NOTE The titles of the publications referred to in this standard are listed on inside back cover.

2 Description

The material shall be clear and free from matter in suspension, as assessed by visual inspection, and shall consist essentially of methanol, CH₃OH.

3 Sampling and size of sample

A sample of not less than 1 L shall be taken in accordance with BS 506-2.

4 Colour

The colour of the material shall not exceed 15 Hazen units when measured as described in BS 5339.

5 Density

The density of the material at 20 °C shall be not lower than 0.791 g/mL and not higher than 0.794 g/mL when determined as described in BS 4522.

6 Distillation range

When the material is distilled as described in BS 4591, modified as specified in BS 506-2, the distillation range at 1 013 mbar¹⁾ pressure shall not exceed 1.0 °C and shall include the value 64.6 °C.

7 Residue on evaporation

The residue on evaporation on the material shall not exceed 0.001 % (*m/m*) when determined as described in BS 4524.

8 Miscibility with water

The material shall not show opalescence when mixed with distilled water as described in BS 506-2.

9 Alkalinity or acidity

The material shall not be alkaline to phenolphthalein and shall not contain more than 0.003 % (*m/m*) of acid, calculated as formic acid (HCOOH) and determined as described in BS 506-2.

10 Aldehydes and ketones

The material shall not contain more than 0.005 % (*m/m*) of aldehydes and ketones, calculated as acetone (CH₃COCH₃) and determined by the spectrometric method described in BS 506-2.

11 Sulphur compounds

The material shall not contain more than 0.0001 % (*m/m*) of sulphur compounds, calculated as S and determined as described in BS 506-2.

12 Permanganate test

The material shall not cause the colour of a standard potassium permanganate solution to fade sufficiently in 30 min to match or be lighter than the matching solution when tested as described in BS 506-2.

13 Water content

The material shall not contain more than 0.1 % (*m/m*) of water when determined as described in clause 2 of BS 2511:1970.

¹⁾ 1 mbar – 100 N/m² = 100 Pa.

Publications referred to

BS 506, *Methanol for industrial use.*

BS 506-2, *Methods of test.*

BS 2511, *Methods for the determination of water (Karl Fischer method).*

BS 4522, *Method for the determination of density of liquids at 20 °C.*

BS 4524, *Method for the determination of residue on evaporation on a water bath.*

BS 4591, *Method for the determination of distillation characteristics.*

BS 5339, *Method of measurement of colour in Hazen units (platinum-cobalt scale) of liquid chemical products.*

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