

Specification for

2-ethylhexan-1-ol for industrial use

Confirmed
January 2011

Committees responsible for this British Standard

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

British Pharmacopoeia Commission
 British Society of Perfumers
 Chemical Industries' Association
 Ministry of Defence
 Oil and Colour Chemists Association
 Royal Society of Chemistry
 Solvents Industry Association Ltd.

This British Standard, having been prepared under the direction of the Chemicals Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 28 June 1991

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First published February 1952
 Second edition March 1970
 Third edition June 1991

The following BSI references relate to the work on this standard:
 Committee reference CIC/51
 Draft for comment 90/56870 DC

ISBN 0 580 19655 0

Amendments issued since publication

Amd. No.	Date	Comments

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Foreword

This British Standard, which has been prepared under the direction of the Chemicals Standards Policy Committee, supersedes BS 1835:1970, which is withdrawn. The principal differences between this standard and the 1970 edition are as follows.

- a) The requirements for distillation range, in terms of the initial boiling point and the dry point, have been made more stringent.
- b) The requirement for acidity has been made more stringent and is now expressed as a percentage by mass of acetic acid.
- c) The requirement for aldehydes and ketones has been made more stringent.
- d) The requirement for relative density has been replaced by one for density at 20 °C.
- e) The requirement for total alcohols content is now expressed as a percentage by mass.

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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 2-ethylhexan-1-ol suitable for industrial purposes.

NOTE The titles of the publications referred to in this standard are listed on the 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 2-ethylhexan-1-ol [$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}(\text{C}_2\text{H}_5)\text{CH}_2\text{OH}$].

3 Sampling and size of sample

A sample of not less than 1 L shall be taken in accordance with BS 4583.

4 Colour

The colour of the material shall not exceed 10 Hazen units when measured by the method described in BS 5339.

5 Density

The density of the material at 20 °C, measured by the method described in BS 4522, shall be not lower than 0.832 g/mL and not higher than 0.834 g/mL.

6 Distillation range

When the material is distilled by the method described in BS 4591, modified as specified in BS 4583, the initial boiling point at 101.3 kPa pressure shall be not lower than 182.0 °C and the dry point at 101.3 kPa pressure shall be not higher than 185.0 °C.

7 Water content

The material shall not contain more than 0.10 % (*m/m*) of water when determined by the method described in clause 2 of BS 2511:1970 using 20 mL of the material.

8 Ash

The material shall not leave more than 0.010 % (*m/m*) of ash when determined by the method described in BS 4583.

9 Acidity

The acidity of the material, calculated as acetic acid (CH_3COOH), shall not exceed 0.010 % (*m/m*) (equivalent to an acid value of 0.094) when determined by the method described in BS 4583.

10 Aldehydes and ketones

The material shall not contain more than 0.010 % (*m/m*) of aldehydes and ketones, calculated as carbonyl (CO), when determined by the method described in BS 4583.

11 Colour after treatment with sulphuric acid

The colour of the material after treatment with sulphuric acid shall not exceed 50 Hazen units when measured by the method described in BS 4583.

12 Total alcohols content

The material shall contain not less than 98.8 % (*m/m*) and not more than 101.4 % (*m/m*) total alcohols, calculated as octyl alcohols (C_8H_{17}), when determined by the method described in BS 4583.

Publication(s) referred to

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

BS 4522, *Method for determination of absolute density at 20 °C of liquid chemical products for industrial use*.

BS 4583, *Methods of test for higher alcohols for industrial use*.

BS 4591, *Method for determination of distillation characteristics of organic liquids (other than petroleum products)*.

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

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