BRITISH STANDARD

BS 6075-0: 1981

Methods of

Sampling and test for sodium hydroxide for industrial use —

Part 0: General introduction

Confirmed January 2011

UDC 661.322.1:546.33 – 36:543.062:543.05

Cooperating organizations

The Chemicals Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following:

Association of Fatty Acid Distillers
British Tar Industry Association
Chemical Industries Association*
Chemical Society (Analytical Division)
Consumer Standards Advisory Committee of BSI
Department of Health and Social Security
Department of Industry (Laboratory of the Government Chemist)
Fertiliser Manufacturers' Association Ltd.
Hydrocarbon Solvents Association
Ministry of Agriculture, Fisheries and Food
Ministry of Defence*
National Sulphuric Acid Association
Paintmakers' Association of Great Britain Ltd.
Royal Institute of Public Health and Hygiene
Soap and Detergent Industry Association*
Standardization of Tar Products Tests Committee

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the Technical Committee entrusted with the preparation of this British Standard:

Asbestos Cement Manufacturers' Association Limited
British Man-made Fibres Federation
British Textile Employers' Association
Fabric Care Research Association
Society of Glass Technology

This British Standard, having been prepared under the direction of the Chemicals Standards Committee, was published under the authority of the Executive Board and comes into effect on
27 February 1981

The following BSI reference relates to the work on this standard:
Committee reference CIC/22

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Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

Foreword

This British Standard has been prepared under the direction of the Chemicals Standards Committee and provides, in separate Parts, a comprehensive series of test methods for sodium hydroxide for industrial use, both in solid form and in aqueous solution. Although applicable to the material in general, it includes all the test methods required to assess compliance with the requirements of BS 4130. The latter specification is in the process of being revised and, in accordance with current BSI policy, will no longer include test methods which in the 1967 edition were given in appendices.

In preparing this standard, the opportunity has been taken to implement, without alteration, the majority of the International Standards describing test methods for sodium hydroxide. These have been prepared, with the active participation of the UK, by Subcommittee 5, of Technical Committee 47, Chemistry, of the International Organization for Standardization (ISO). Although all such Parts are applicable to the material in general, most of them also relate to the requirements of BS 4130 and replace the corresponding methods appended to the previous edition of that standard. There are, however, requirements in the specification for the contents of copper, of manganese and of matter insoluble in water, for which there are no corresponding International Standards. The relevant test method from BS 4130:1967 for the determination of copper content has therefore been included, technically unchanged, as Part 12 of this standard. It was intended similarly to publish the determination of manganese content as Part 13 but it was subsequently decided to consider replacement of that method, because of its slowness and its failure to determine manganese in its higher oxidation states, by a well established method based on atomic absorption spectrophotometry.

The method for the determination of matter insoluble in water described in BS 4130:1967 was technically similar to that described in ISO Recommendation R987:1969. This International Standard was withdrawn because of inaccuracies caused by mass losses arising from the partial dissolution of the sintered glass crucible by the sodium hydroxide solution. Recent work in the UK has shown that such losses are negligible provided that crucibles are suitably pre-treated with sodium hydroxide solution, prior to using them for this determination. The method, modified in this respect, is therefore published as Part 14 of this standard.

It is intended to submit the three methods concerned for consideration as International Standards.

In this Part of BS 6075, Table 1 gives the relationship of the other Parts of the standard to the corresponding International Standards.

Additional information

Ethanol. The ethanol used in these determinations may be replaced for these purposes by industrial methylated spirits, 95 % (*V*/*V*) complying with the requirements of BS 3591. It should be noted that the use of industrial methylated spirits is governed by The Methylated Spirits Regulations, 1952 (S.I. 1952, No 2230) as amended by The Alcoholic Liquors (Amendment of Units and Methods of Measurement) Regulations 1979 (S.I. 1979, No 1149). It is not permissible to use duty-free ethanol, received under the provisions of the Alcoholic Liquor Duties Act 1979, Section 10, for purposes for which industrial methylated spirits is an acceptable alternative to ethanol.

NOTE Additional guidance on sampling is given in BS 3020-1, BS 3020-3 and BS 3020-4.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, 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.

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Table 1 — Methods of sampling and test for sodium hydroxide: relationship between BS and international series

BS 6075 Part no.	Corresponding International Standard no.	Subject	Type of Determination	Relationship of International Standard to BS test method
0	—	General introduction	—	—
1	979	Sodium hydroxide content	Titrimetric	Identical
—	980	Carbonate content	Gas-volumetric	Not implemented; one test method, ISO 3196, considered to be sufficient
2	981	Chloride content	Mercurimetric	Identical
—	982	Sulphate content	Gravimetric	Not implemented method disapproved by UK
3	983	Iron content	Photometric (1,10-phenanthroline)	Identical
4	984	Silica content	Photometric	Identical
—	985	Silica content	Gravimetric	Not implemented method disapproved by UK
—	986	Calcium content	Complexometric	Not implemented method disapproved by UK
5	3195	Sampling and preparation of main test solution	—	Identical
6	3196	Carbonate content	Titrimetric	Identical
7	3197	Chloride content	Photometric	Identical
8	3198	Sulphate content	Reduction and titrimetric	Identical
9	3697	Calcium and magnesium contents	Flame AAS	Identical
10	5992	Mercury content	Photometric	Identical
11	5993	Mercury content	Flameless AAS	Identical
12	—	Copper content	Photometric	No equivalent International Standard
13[a]	—	Manganese content	—	No equivalent International Standard
14	—	Matter insoluble in water	Gravimetric	No equivalent International Standard

[a] In course of preparation.

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Publications referred to

BS 3591, *Industrial methylated spirits.*
BS 4130, *Sodium hydroxide (technical grades).*

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