

# Analysis of surface active agents (raw materials) —

## Part 0: General introduction

Confirmed  
November 2008

# 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/34, upon which the following bodies were represented:

Chemical Industries Association  
 Chemical Industries Association (GOSIP)  
 Consumer Policy Committee of BSI  
 Department of Trade and Industry (Laboratory of the Government Chemist)  
 Ministry of Defence  
 Royal Society of Chemistry  
 Soap and Detergent Industry Association  
 Society of Dyers and Colourists

This British Standard, having been prepared under the direction of the Chemicals Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 January 1991

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The following BSI references relate to the work on this standard:  
 Committee reference CIC/34  
 Draft (ref. 90/55700) announced in *BSI News*, November 1990

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## Amendments issued since publication

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## Foreword

This Part of BS 6829 has been prepared under the direction of the Chemicals Standards Policy Committee. It is a revision of the 1989 edition of BS 6829-0, which is withdrawn. BS 6829 provides a series of analytical methods for surface active agents used in their unbuilt form or used as raw materials for formulated products.

BS 6829 is published in six Parts, the analytical methods in Parts 1 to 5 being published separately as Sections.

In preparing this British Standard, the opportunity was taken, if appropriate, of implementing, preferably without alteration, International Standards describing test methods for surface active agents. These were prepared, with the active participation of the UK, by Technical Committee 91, Surface active agents, of the International Organization for Standardization (ISO). In this Part of BS 6829, Table 1 lists the Parts and Sections of BS 6829 and the analytical methods included therein and gives, if appropriate, their relationships to the corresponding International Standards.

It is intended that work should continue with the object of improving existing test methods and preparing others for publication as further Sections of BS 6829.

This standard does not include methods of sampling surface active agents from bulk. Guidance in this respect is given, however, in BS 5309-1, BS 5309-3 and BS 5309-4.

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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 Part of BS 6829 outlines, in Table 1, the present structure of BS 6829 and gives guidance on its use.

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

## 2 Sampling

For methods of sample division, see BS 3762-1.

## 3 Reagents

During the analysis, unless otherwise stated, use only reagents of recognized analytical grade and water complying with grade 3 of BS 3978.

## 4 Other methods

In addition to the methods given in Table 1, other British Standard methods appropriate for the analysis of surface active agents include method 1 of BS 3762-3.25 and BS 3900-A11.

**Table 1 — Method of analysis of surface active agents (raw materials): structure and relationship between BS 6829 and International Standards**

BS 6829		Subject	Corresponding International Standard	Relationship of International Standard to BS test method
Part	Section number			
0 General introduction	—	Introduction	—	—
1 General methods	1.1	Mineral sulphate content	6844	Identical
	1.2	Free alkalinity or free acidity	4314	Identical
	1.3	Alkalinity	4315	Identical
	1.4	pH of an aqueous solution	4316	Related
	1.5	Water content (Karl Fischer)	4317	Related
2 Alkane sulphonates	2.1	Total alkane sulphonates content	6122	Related
	2.2	Mean relative molecular mass of alkane monosulphonates	6845	Identical
	2.3	Alkylmonosulphonates content	6121	Identical
3 Sodium alkylbenzene sulphonates	3.1	Mean relative molecular mass	6841	Identical
4 Ethylene oxide adducts	4.1	Cloud temperature (cloud point)	1065	Identical
	4.2	Polyethylene glycols and non-ionic active matter	2268	Identical
	4.3	Oxyethylene groups content	2270	Identical
	4.4	Cloud point index	4320	Identical
	4.5	Sulphated ash	4322	Identical
	4.6	Hydroxyl value	4326	Identical
5 Ethoxylated alcohol and alkylphenol sulphates	5.1	Total active matter content	6842	Identical
	5.2	Mean relative molecular mass	6843	Identical
	5.3	Unsulphated matter content	8799	Identical



## Publications referred to

- BS 3762, *Analysis of formulated detergents*.
- BS 3762-1, *Methods of sample division*.
- BS 3762-3, *Quantitative test methods*.
- BS 3762-3.25, *Methods for determination of water and volatile matter content*.
- BS 3900, *Methods of test for paints*.
- BS 3900-A11, *Small scale test for combustibility*.
- BS 3978, *Specification for water for laboratory use*.
- BS 5309, *Methods for sampling chemical products*<sup>1)</sup>.
- BS 5309-1, *Introduction and general principles*.
- BS 5309-3, *Sampling of liquids*.
- BS 5309-4, *Sampling of solids*.
- ISO 1065, *Non-ionic surface active agents obtained from ethylene oxide — Determination of cloud temperature (cloud point)*.
- ISO 2268, *Surface active agents (non-ionic) — Determination of polyethylene glycols and non-ionic active matter (adducts) — Weibull method*.
- ISO 2270, *Non-ionic surface active agents — Polyethoxylated derivatives — Iodometric determination of oxyethylene groups*.
- ISO 4314, *Surface active agents — Determination of free alkalinity or free acidity — Titrimetric method*.
- ISO 4315, *Surface active agents — Determination of alkalinity — Titrimetric method*.
- ISO 4316, *Surface active agents — Determination of pH of aqueous solutions — Potentiometric method*.
- ISO 4317, *Surface active agents — Determination of water content — Karl Fischer method*.
- ISO 4320, *Non-ionic surface active agents — Determination of cloud point index — Volumetric method*.
- ISO 4322, *Non-ionic surface active agents — Determination of sulphated ash — Gravimetric method*.
- ISO 4326, *Non-ionic surface active agents — Polyethoxylated derivatives — Determination of hydroxyl value — Acetic anhydride method*.
- ISO 6121, *Surface active agents — Technical alkane sulfonates — Determination of alkane monosulfonates content by direct two-phase titration*.
- ISO 6122, *Surface active agents — Technical alkane sulphonates — Determination of total alkane sulphonates content*.
- ISO 6841, *Surface active agents — Technical straight-chain sodium alkylbenzenesulfonates — Determination of mean relative molecular mass by gas-liquid chromatography*.
- ISO 6842, *Surface active agents — Sulfated ethoxylated alcohols and alkylphenols — Determination of total active matter content*.
- ISO 6843, *Surface active agents — Sulfated ethoxylated alcohols and alkylphenols — Estimation of the mean relative molecular mass*.
- ISO 6844, *Surface active agents — Determination of mineral sulfate content — Titrimetric method*.
- ISO 6845, *Surface active agents — Technical alkane sulfonates — Determination of the mean relative molecular mass of the alkane monosulfonates and the alkane monosulfonate content*.
- ISO 8799, *Surface active agents — Sulfated ethoxylated alcohols and alkylphenols — Determination of content of unsulfated matter*.

<sup>1)</sup> Referred to in the foreword only.

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