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**Surface active agents — Technical straight-chain
sodium alkylbenzenesulfonates — Determination of
mean relative molecular mass by gas-liquid
chromatography**

*Agents de surface — Alkylbenzène sulfonates de sodium linéaires techniques —
Détermination de la masse moléculaire relative moyenne par chromatographie gaz-liquide*

Reference number
ISO 6841 : 1988 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6841 was prepared by Technical Committee ISO/TC 91, *Surface active agents*.

This second edition cancels and replaces the first edition (ISO 6841 : 1983), of which it constitutes a minor revision.

Introduction

When using the two-phase titration for the determination of anionic active matter content, it is necessary to know the mean relative molecular mass of the substance.

An accurate and rapid method consists of determining by gas-liquid chromatography (GLC) the mean relative molecular mass of the alkylbenzene used to manufacture the monosulfonated products; the relative molecular mass of the respective monosulfonate or monosulfonic acid can then be calculated by adding the relative molecular mass of the SO_3Na group minus Na, or that of the SO_3H group minus H.

The GLC technique is only applicable to straight-chain alkylbenzenes, since branched-chain types will give chromatograms from which it is impossible to identify and to calculate the relative molecular mass for individual chains.

NOTE — Any ortho-fused polycyclic hydrocarbon derivatives of low relative molecular mass present, such as indan, and tetrahydronaphthalene, as well as branched-chain alkylbenzenes, are not taken into account in the calculation of the relative molecular mass of the technical straight-chain sodium alkylbenzenesulfonate analysed.