INTERNATIONAL STANDARD 4323

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION · МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ · ORGANISATION INTERNATIONALE DE NORMALISATION

Soaps — Determination of chloride content — Potentiometric method

Savons — Dosage des chlorures — Méthode potentiométrique

First edition — 1977-09-01

UDC 661.187 : 543.25 **Ref. No. ISO 4323-1977 (E)**

Descriptors : surfactants, saaps, chemical analysis, determination of content, chlorides, potentiometric analysis.

Price based on 3 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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.

International Standard ISO 4323 was developed by Technical Committee ISO/TC 91, *Surface active agents*, and was circulated to the member bodies in August 1975.

It has been approved by the member bodies of the following countries :

Australia	India	South Africa, Rep. of
Austria	Iran	Switzerland
Belgium	Italy	Thailand
Brazil	Japan	Turkey
Bulgaria	Netherlands	United Kingdom
Canada	New Zealand	U.S.A.
France	Poland	Yugoslavia
Germany	Portugal	
Hungary	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

Spain

Printed in Switzerland

Soaps — Determination of chloride content — Potentiometric method

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a potentiometric method for the determination of the chloride content of commercial soaps, containing or not containing other surface active agents, and also of compounded products.

2 REFERENCE

ISO . . ., *Soaps — Sampling.*[1)]

3 PRINCIPLE

Potentiometric titration of the chloride (Cl^-) ions with standard volumetric silver nitrate solution in a nitric acid medium, using a silver-silver chloride measurement electrode and a calomel reference electrode.

4 REAGENTS

During the analysis, use only reagents of recognized analytical grade and only distilled water or water of equivalent purity.

4.1 Potassium nitrate, solution saturated at 20 °C.

4.2 Nitric acid, approximately 6 N solution.

4.3 Silver nitrate, approximately 0,1 N standard volumetric solution.

Dissolve 8,5 g of silver nitrate in water in a 500 ml one-mark volumetric flask, dilute to the mark and mix.

Store this solution in a dark amber-coloured flask.

4.4 Silver nitrate, approximately 0,01 N solution.

Prepare this solution immediately before use by appropriate dilution of the standard volumetric silver nitrate solution (4.3).

4.5 Potassium chloride, 0,1 N standard reference solution.

Weigh, to the nearest 0,001 g, 3,728 g of potassium chloride, previously dried for 2 h at 105 °C and cooled in a desiccator. Dissolve in a small quantity of water and transfer quantitatively to a 500 ml one-mark volumetric flask. Dilute to the mark and mix.

4.6 Potassium chloride, 0,01 N standard reference solution.

Prepare this solution immediately before use by appropriate dilution of the standard reference potassium chloride solution (4.5).

4.7 Methyl orange, 1 g/l solution.

5 APPARATUS

Ordinary laboratory apparatus, and

5.1 Potentiometer, sensitivity 2 mV, covering the range − 300 to + 500 mV.

5.2 Electrodes.

5.2.1 Calomel electrode — KCl saturated.

5.2.2 Silver-silver chloride electrode.

5.2.3 Bridge, containing the saturated potassium nitrate solution (4.1), connected to the calomel electrode (5.2.1).

5.3 Combined electrode, as an alternative to the calomel electrode (5.2.1) and the silver electrode (5.2.2).

5.4 Electromagnetic stirrer.

5.5 Burette, capacity 50 ml, complying with the requirements of ISO/R 385, Class A.

1) In preparation.