

# ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

## ISO RECOMMENDATION R 457

ANALYSIS OF SOAP

DETERMINATION OF CHLORIDES

1st EDITION

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## BRIEF HISTORY

The ISO Recommendation R 457, *Analysis of Soap. Determination of Chlorides*, was drawn up by Technical Committee ISO/TC 91, *Surface Active Agents*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1961 and led, in 1962, to the adoption of a Draft ISO Recommendation.

In June 1963, this Draft ISO Recommendation (No. 585) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Argentina	Hungary	Poland
Austria	Italy	Portugal
Canada	Japan	Romania
Chile	Korea, Rep. of	Spain
Colombia	Morocco	Switzerland
Czechoslovakia	Netherlands	United Kingdom
France	New Zealand	Yugoslavia
Germany	Norway	

One Member Body opposed the approval of the Draft:

India.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in November 1965, to accept it as an ISO RECOMMENDATION.

**ANALYSIS OF SOAP**  
**DETERMINATION OF CHLORIDES**

**1. SCOPE**

The purpose of this ISO Recommendation is to specify the method of determining chlorides in commercial soaps, excluding compounded products.

**2. PRINCIPLE**

The soap is decomposed by acid, the fatty acids are removed by filtration, and the chloride ions are determined argentometrically.

**3. REAGENTS**

- 3.1 Nitric acid  $d = 1.3$  to  $1.4$ .
- 3.2 Silver nitrate: aqueous solution, standardized to approximately 0.1 N.
- 3.3 Ammonium thiocyanate: aqueous solution, standardized to approximately 0.1 N.
- 3.4 Ammonium ferric sulphate: aqueous solution, 10 % by mass.

**4. APPARATUS**

Ordinary laboratory equipment and in particular

- (a) Evaporating basin.
- (b) One-mark graduated flask, 200 ml.
- (c) Water-bath.
- (d) Balance, accurate to 1 cg.

**5. PROCEDURE**

**5.1 Test portion**

Weigh approximately 5 g of soap into the evaporating basin, to an accuracy of 0.01 g.

**5.2 Determination**

Dissolve the test portion in 50 ml of distilled water. Transfer the solution quantitatively to the 200 ml one-mark flask, washing with small portions of distilled water. Add 5 ml of nitric acid (3.1) and then immediately add an exactly measured quantity of 25 ml of silver nitrate solution (3.2).