

Annulé

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 455

ANALYSIS OF SOAP

DETERMINATION OF TOTAL CRUDE FATTY ACIDS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 455, *Analysis of Soap. Determination of Total Crude Fatty Acids*, 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. 583) 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 TOTAL CRUDE FATTY ACIDS

1. SCOPE

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

In the Annex, there is also described a method which should be used only for routine controls and for soaps in which the fatty acids are not contaminated with substances insoluble in water, derived from additives (silicates etc.).

2. TERMINOLOGY

Total crude fatty acids means the water-insoluble fatty material which is collected by decomposing the soap with a strong mineral acid under the operating conditions described. This term includes unsaponifiable matter, glycerides and any resinic acids contained in the soap, in addition to the so-called fatty acids.

3. PRINCIPLE

The fatty acids are extracted with diethyl ether and titrated with a solution of sodium hydroxide in ethanol.

4. REAGENTS

4.1 Diethyl ether, pure.

4.2 Ethanol solution, 95 % by volume.

4.3 Acid solution:

either sulphuric acid, $d = 1.83$, diluted 1/5 ; *
or hydrochloric acid, $d = 1.19$, diluted 1/3. *

4.4 Sodium chloride solution, 10 g of sodium chloride dissolved in 100 ml of distilled water.

4.5 Sodium hydroxide ethanolic solution, analytical grade, recently standardized to approximately 0.5 N.

4.6 Methyl-orange solution, 0.2 g in 100 ml of distilled water.

4.7 Phenolphthalein solution, 1 g in 100 ml of the ethanol solution (4.2).

* Diluted p_1/p_2 means that p_1 parts by volume of the specified solution are diluted to give p_2 parts by volume of the final mixture.