

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 915

SULPHURIC ACID AND OLEUM FOR INDUSTRIAL USE
DETERMINATION OF IRON CONTENT
2,2'-bipyridyl spectrophotometric method

1st EDITION
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BRIEF HISTORY

The ISO Recommendation R 915, *Sulphuric acid and oleum for industrial use - Determination of iron content - 2,2'-bipyridyl spectrophotometric method*, was drawn up by Technical Committee ISO/TC 47, *Chemistry*, the Secretariat of which is held by the Ente Nazionale Italiano di Unificazione (UNI).

Based on detailed work on this question carried out by the Technical Committee, a Draft ISO Recommendation was adopted in 1965.

In June 1967, this Draft ISO Recommendation (No. 1185) 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 :

Austria	India	Spain
Belgium	Iran	Switzerland
Brazil	Ireland	Thailand
Chile	Italy	Turkey
Cuba	Japan	U.A.R.
Czechoslovakia	Netherlands	United Kingdom
France	New Zealand	U.S.S.R.
Germany	Poland	Yugoslavia
Hungary	Romania	
ICAITI*	South Africa, Rep. of	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, in December 1968, to accept it as an ISO RECOMMENDATION.

* Instituto Centroamericano de Investigación y Tecnología Industrial (Costa Rica, Guatemala, Honduras, Nicaragua, El Salvador, Panama).

SULPHURIC ACID AND OLEUM FOR INDUSTRIAL USE

DETERMINATION OF IRON CONTENT

2,2'-bipyridyl spectrophotometric method

1. SCOPE

This ISO Recommendation describes a 2,2'-bipyridyl spectrophotometric method for the determination of the iron content of sulphuric acid and oleum for industrial use.

2. FIELD OF APPLICATION

The method is applicable to the determination of iron content, expressed as Fe greater than 1 p.p.m.

3. PRINCIPLE

Evaporation of the test portion, taking up by means of hydrochloric acid and reduction of iron (III) by means of hydroxylammonium chloride.

Formation of an iron (II) 2,2'-bipyridyl complex in a buffered medium (pH value between 4.5 and 6).

Spectrophotometric measurement of the coloured complex at a wavelength of about 522 nm.