UDC 661.419 : 543.21

Ref. No. : ISO/R 907-1968 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 907

HYDROCHLORIC ACID FOR INDUSTRIAL USE

DETERMINATION OF SULPHATED ASH

GRAVIMETRIC METHOD

1st EDITION

December 1968

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 907, *Hydrochloric acid for industrial use – Determination of sulphated ash – Gravimetric 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. 1177) 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	Iran	South Africa, Rep. of
Belgium	Ireland	Spain
Bulgaria	Israel	Switzerland
Chile	Italy	Thailand
Cuba	Japan	Turkey
Czechoslovakia	Korea, Dem. P. Rep. of	U.A.R.
France	Netherlands	United Kingdom
Germany	New Zealand	U.S.S.R.
Hungary	Poland	Yugoslavia
ICAITI*	Portugal	
India	Romania	

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 Savador, Panama).

ISO Recommendation R 907 December 1968

HYDROCHLORIC ACID FOR INDUSTRIAL USE

DETERMINATION OF SULPHATED ASH

GRAVIMETRIC METHOD

1. SCOPE

This ISO Recommendation describes a gravimetric method for the determination of sulphated ash of hydrochloric acid for industrial use.

2. PRINCIPLE

Evaporation of a test portion; conversion to sulphates by treatment with sulphuric acid; ignition at 800 °C and weighing.

3. REAGENT

Sulphuric acid, approximately $d = 1.84$, 96 % (m/m) or 36 N solution.

4. APPARATUS

Ordinary laboratory apparatus and

4.1 *Platinum dish*, flat-bottomed, capacity approximately 200 ml.

4.2 *Electric furnace*, regulated at 800 ± 50 °C.

5. PROCEDURE

5.1 Test portion

In the platinum dish (4.1), previously ignited at 800 °C, cooled in a desiccator and weighed, weigh, to the nearest 10 mg, approximately 100 g of the test sample.

5.2 Determination

Evaporate most of the acid (the final volume should amount to about 5 to 10 ml) by carefully heating the dish containing the test portion (on a sand bath, for example). Then allow to cool to room temperature.

Take up by means of 1 ml of the sulphuric acid solution (3) and heat to dryness.

Place the dish containing the residue in the electric furnace (4.2), heated at 800 ± 50 °C, and keep at this temperature for about 15 minutes.

Remove the dish from the furnace, place into a desiccator and, after cooling, weigh.

6. EXPRESSION OF RESULTS

Sulphated ash is given as a percentage, by mass, by the following formula :

$$\frac{R \times 100}{E}$$

where

R is the mass, in grammes, of the residue weighed;

E is the mass, in grammes, of the test portion.

7. TEST REPORT

Give the following particulars :

(*a*) the reference of the method used;

(*b*) the results and the method of expression used;

(*c*) any unusual features noted during the determination;

(*d*) any operation not included in this ISO Recommendation or regarded as optional.

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ISO

ORGANISATION INTERNATIONALE DE NORMALISATION

RECOMMANDATION ISO
R 907

ACIDE CHLORHYDRIQUE À USAGE INDUSTRIEL

DOSAGE DU RÉSIDU FIXE SULFATÉ

MÉTHODE GRAVIMÉTRIQUE

1ère ÉDITION

Décembre 1968

Imprimé en Suisse

Ce document est également édité en anglais et en russe. Il peut être obtenu auprès des organisations nationales de normalisation.

HISTORIQUE

La Recommandation ISO/R 907, *Acide chlorhydrique à usage industriel – Dosage du résidu fixe sulfaté – Méthode gravimétrique,* a été élaborée par le Comité Technique ISO/TC 47, *Chimie,* dont le Secrétariat est assuré par l'Ente Nazionale Italiano di Unificazione (UNI).

Les nombreux travaux relatifs à cette question, entrepris par le Comité Technique, aboutirent, en 1965, à l'adoption d'un Projet de Recommandation ISO.

En juin 1967, ce Projet de Recommandation ISO (N° 1177) fut soumis à l'enquête de tous les Comités Membres de l'ISO. Il fut approuvé, sous réserve de quelques modifications d'ordre rédactionnel, par les Comités Membres suivants :

Afrique du Sud, Rép. d'	ICAITI*	R.A.U.
Allemagne	Inde	Roumanie
Autriche	Iran	Royaume-Uni
Belgique	Irlande	Suisse
Bulgarie	Israël	Tchécoslovaquie
Chili	Italie	Thaïlande
Corée, Rép. Dém. P. de	Japon	Turquie
Cuba	Nouvelle-Zélande	U.R.S.S.
Espagne	Pays-Bas	Yougoslavie
France	Pologne	
Hongrie	Portugal	

Aucun Comité Membre ne se déclara opposé à l'approbation du Projet.

Le Projet de Recommandation ISO fut alors soumis par correspondance au Conseil de l'ISO qui décida, en décembre 1968, de l'accepter comme RECOMMANDATION ISO.

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