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ISO RECOMMENDATION

R 1983

NITRIC ACID FOR INDUSTRIAL USE

DETERMINATION OF SULPHATED RESIDUE ON IGNITION

GRAVIMETRIC METHOD

1st EDITION

May 1971

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BRIEF HISTORY

The ISO Recommendation R 1983, *Nitric acid for industrial use – Determination of sulphated residue on ignition – 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).

Work on this question led to the adoption of Draft ISO Recommendation No. 1983, which was circulated to all the ISO Member Bodies for enquiry in May 1970. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Iran	Romania
Austria	Ireland	South Africa, Rep. of
Belgium	Israel	Switzerland
Chile	Italy	Thailand
Czechoslovakia	Netherlands	Turkey
France	New Zealand	U.A.R.
Germany	Peru	United Kingdom
Greece	Poland	U.S.A.
India	Portugal	U.S.S.R.

No Member Body opposed the approval of the Draft.

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

ISO Recommendation | R 1983 | May 1971

NITRIC ACID FOR INDUSTRIAL USE

DETERMINATION OF SULPHATED RESIDUE ON IGNITION

GRAVIMETRIC METHOD

1. SCOPE

This ISO Recommendation describes a gravimetric method for the determination of sulphated residue on ignition of nitric acid for industrial use.

2. PRINCIPLE

Evaporation of a test portion, conversion of the salts to sulphates by treatment with sulphuric acid, and ignition at 800 ± 25 °C and weighing.

3. REAGENT

3.1 *Sulphuric acid,* ρ 1.84 g/ml approximately, 96 % (m/m) solution approximately.

4. APPARATUS

Ordinary laboratory apparatus and

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

4.2 *Electric furnace,* regulated at 800 ± 25 °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 the greater part of the acid (to a final volume of 5 to 10 ml) by carefully heating the dish containing the test portion (for example, on a boiling water bath and then on a sand bath). Remove the dish and allow it to cool to room temperature.

Add 1 ml of the sulphuric acid (3.1) and carry on heating to dryness.

Place the dish containing the residue in the electric furnace (4.2) heated at 800 ± 25 °C and keep at this temperature for about 15 minutes.

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