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Sodium fluoride for industrial use — Determination of water-insoluble matter

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FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2831 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in June 1972.

It has been approved by the Member Bodies of the following countries :

Australia	Ireland	South Africa, Rep. of
Austria	Italy	Sweden
Belgium	Marocco	Switzerland
Czechoslovakia	Netherlands	Thailand
France	New Zealand	Turkey
Germany	Poland	United Kingdom
Hungary	Portugal	U.S.S.R.
India	Romania	

This International Standard has also been approved by the International Union of Pure and Applied Chemistry (IUPAC).

No Member Body expressed disapproval of the document.

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Sodium fluoride for industrial use — Determination of water-insoluble matter

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the determination of water-insoluble matter in sodium fluoride for industrial use.

2 REFERENCE

ISO . . . *Sodium fluoride for industrial use — Preparation and storage of test samples*[1].

3 PRINCIPLE

Dissolution of a test portion, separation of any insoluble matter by filtration, drying and weighing.

4 REAGENTS

Distilled water, or water of equivalent purity, shall be used in the test.

5 APPARATUS

Ordinary laboratory apparatus and

5.1 Filter crucible, with sintered glass filter plate, porosity P40 (pore size index between 16 and 40 μm).

5.2 Electric oven, ventilated by convection, capable of being controlled at 110 ± 2 °C.

6 PROCEDURE

6.1 Test portion

Weigh, to the nearest 0,01 g, approximately 5 g of the dried test sample prepared according to ISO . . . [1].

6.2 Determination

Place the test portion (6.1) in a beaker of suitable capacity (for example, 400 ml) and dissolve in approximately 200 ml of water. Heat the solution nearly to boiling for about 10 min, cool and immediately filter the solution by vacuum through the filter crucible (5.1), previously dried for 2 h in the oven (5.2) controlled at 110 ± 2 °C, cooled in a dessicator and weighed.

Wash four times, each time with 50 ml of water at approximately 80 °C.

Place the filter crucible in the electric oven (5.2) controlled at 110 ± 2 °C and maintain at this temperature for 2 h.

Then remove the crucible from the oven, place it in a desiccator, allow to cool and weigh.

Repeat the operation of heating, cooling and weighing until the difference between two successive weighings does not exceed 1 mg.

NOTE — The time of cooling in the desiccator should be equal to that used to determine the tare of the empty crucible.

7 EXPRESSION OF RESULTS

The water-insoluble matter is given, as a percentage by mass, by the formula

$$\frac{(m_2 - m_1)}{m_0} \times 100$$

where

m_0 is the mass, in grams, of the test portion;

m_1 is the mass, in grams, of the empty crucible;

m_2 is the mass, in grams, of the crucible containing the filtered and dried insoluble matter.

8 TEST REPORT

The test report shall include 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 International Standard or the document to which reference is made, or regarded as optional.

1) In preparation.