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Sodium fluoride for industrial use — Determination of moisture content

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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 2832 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in July 1972.

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

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

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 moisture content

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a gravimetric method for the determination of the moisture content of sodium fluoride for industrial use.

2 REFERENCE

ISO . . ., *Sodium fluoride for industrial use – Preparation and storage of test samples*.¹⁾

3 PRINCIPLE

Drying of a test portion for 2 h at 110 °C and determination of the loss of mass.

4 APPARATUS

Ordinary laboratory apparatus and

4.1 Weighing bottle, shallow, approximately 45 mm in diameter.

4.2 Electric oven, ventilated by convection, capable of being controlled at 110 ± 2 °C, fitted with a thermometer so located that its bulb is near the weighing bottle used during the test. The readings of this thermometer are used to regulate the oven heat and to bring it to the desired temperature.

Before commencing any test, ascertain, by means of the thermometer, the difference between the maximum and minimum temperature of the oven during operation. These temperatures correspond approximately to the automatic switching on and off on the oven heater. If this difference is more than 4 °C, the oven is unsuitable for the determination.

5 PROCEDURE

5.1 Test portion

Dry the weighing bottle (4.1) to constant mass in the oven (4.2), controlled at 110 ± 2 °C, transfer it to a desiccator and weigh to the nearest 0,001 g, after cooling to ambient

temperature. Then weigh, to the nearest 0,001 g, into the tared weighing bottle, approximately 20 g of the crude test sample prepared according to ISO . . .¹⁾.

5.2 Determination

Place the uncovered weighing bottle, containing the test portion, together with its lid, in the oven (4.2), controlled at 110 ± 2 °C and maintain at this temperature for 2 h. Then remove the weighing bottle and its lid from the oven and place them in a desiccator, without closing the weighing bottle completely. Weigh to the nearest 0,001 g, after cooling to ambient temperature and closing the weighing bottle with its lid.

6 EXPRESSION OF RESULTS

The moisture content is given, as a percentage by mass, by the formula

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

where

m_0 is the mass, in grams, of the weighing bottle and its lid;

m_1 is the mass, in grams, of the weighing bottle and its lid containing the test portion before drying;

m_2 is the mass, in grams, of the weighing bottle and its lid containing the test portion after drying.

7 TEST REPORT

The test report shall include the following particulars :

- the reference of the method used;
- the results and the method of expression used;
- any unusual features noted during the determination;
- any operation not included in this International Standard or the document to which reference is made, or regarded as optional.

¹⁾ In preparation.