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Ammonium hydrogen carbonate for industrial use (including foodstuffs) — Determination of ash — Gravimetric method

Bicarbonate d'ammonium à usage industriel (y compris les industries alimentaires) — Détermination des cendres — Méthode gravimétrique

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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 3420 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in March 1974.

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

Austria	Hungary	Spain
Belgium	Ireland	Switzerland
Bulgaria	Israel	Thailand
Chile	Italy	Turkey
Czechoslovakia	Poland	United Kingdom
Egypt, Arab Rep. of	Portugal	U.S.S.R.
France	Romania	Yugoslavia
Germany	South Africa, Rep. of	

No Member Body expressed disapproval of the document.

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Ammonium hydrogen carbonate for industrial use (including foodstuffs) — Determination of ash — Gravimetric method

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a gravimetric method for the determination of the ash of ammonium hydrogen carbonate for industrial use (including foodstuffs).

The method is applicable to the determination of ash equal to or greater than 0,000 1 % (*m/m*).

2 PRINCIPLE

Heating of a test portion at 575 ± 25 °C to constant mass.

3 APPARATUS

Ordinary laboratory apparatus and

3.1 Platinum dish, flat bottomed, diameter approximately 50 mm and height approximately 25 mm.

3.2 Electric or gas furnace, capable of being controlled at 575 ± 25 °C.

4 PROCEDURE

4.1 Test portion

Weigh, to the nearest 0,01 g, about 100 g of the test sample.

4.2 Determination

Into the dish (3.1) — previously heated at 575 ± 25 °C, cooled in a desiccator and weighed to the nearest 0,000 1 g — positioned above a low flame in a well-ventilated fume cupboard, introduce the test portion (4.1), in small amounts, taking care to allow volatilization of the product before each addition.

After complete volatilization, place the dish containing the residue in the furnace (3.2), controlled at about 300 °C, then gradually raise the temperature to 575 ± 25 °C. Continue heating at this temperature until the residue has completely calcined.

Remove the dish from the furnace, allow it to cool in a desiccator and, after cooling, weigh it to the nearest 0,000 1 g. Repeat the operations of heating in the furnace (3.2) controlled at 575 ± 25 °C, cooling and weighing, until two successive weighings do not differ by more than 0,000 3 g.

5 EXPRESSION OF RESULTS

Ash 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 (4.1);

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

m_2 is the mass, in grams, of the dish containing the ash.

6 TEST PORTION

The test portion 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 regarded as optional.