
INTERNATIONAL STANDARD



5985

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid

Aliments des animaux — Détermination des cendres insolubles dans l'acide chlorhydrique

First edition — 1978-11-15

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

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 5985 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in May 1977.

It has been approved by the member bodies of the following countries :

Australia	Iran	South Africa, Rep. of
Austria	Israel	Spain
Canada	Kenya	Thailand
Chile	Mexico	Turkey
Czechoslovakia	Netherlands	United Kingdom
Egypt, Arab Rep. of	New Zealand	U.S.S.R.
Ethiopia	Peru	Venezuela
France	Poland	Yugoslavia
Hungary	Portugal	
India	Romania	

No member body expressed disapproval of the document.

Animal feeding stuffs – Determination of ash insoluble in hydrochloric acid

1 SCOPE

This International Standard specifies two procedures for the determination of the ash of animal feeding stuffs which is insoluble in hydrochloric acid.

2 FIELD OF APPLICATION

Two procedures are established, depending on the nature of the sample.

2.1 Procedure A: applicable to simple organic animal feeding stuffs and to compound feeding stuffs (except those mentioned under procedure B).

2.2 Procedure B: applicable to minerals, mineral mixtures and compound feeding stuffs of which the ash insoluble in hydrochloric acid exceeds 1 % (*m/m*), as determined by procedure A.

3 REFERENCE

ISO 5984, *Animal feeding stuffs – Determination of crude ash*.

4 DEFINITION

ash insoluble in hydrochloric acid: The part of the ash which is insoluble in a hydrochloric acid solution under the conditions described below; expressed as a percentage by mass of the sample.

5 PRINCIPLE

5.1 Procedure A

5.1.1 Decomposition of organic matter in a test portion by incineration.

5.1.2 Treatment with hydrochloric acid of the ash obtained. Filtration, followed by drying, incineration and weighing of the residue.

5.2 Procedure B

5.2.1 Treatment of a test portion with hydrochloric acid. Filtration, followed by drying and incineration.

5.2.2 Treatment of the ash as in 5.1.2.

6 REAGENTS

All reagents shall be of analytical quality. The water used shall be distilled water or water of at least equivalent purity.

6.1 Hydrochloric acid solution, 3 N.

6.2 Trichloroacetic acid solution, 200 g/l.

6.3 Trichloroacetic acid solution, 10 g/l.

7 APPARATUS

Usual laboratory apparatus and in particular :

7.1 Analytical balance.

7.2 Muffle furnace, electrically heated, thermostatically controlled, and provided with a pyrometer. The furnace, when set at 550 °C, shall be capable of being controlled in such a way that the temperature in the places where the incineration dishes will be placed will not differ by more than 20 °C from this set temperature.

7.3 Drying oven, capable of being controlled at 103 ± 2 °C.

7.4 Hot-plate or gas burner.

7.5 Boiling water bath.

7.6 Incineration dishes of platinum or platinum-gold alloy (for example 10 % Pt, 90 % Au) or of other material unaffected by the conditions of the test, preferably rectangular, with a surface area of about 20 cm² and a height of about 2,5 cm.

NOTE – For samples which are inclined to swell on carbonizing, use dishes with a surface area of about 30 cm² and a height of about 3 cm.

7.7 Desiccator, provided with an effective desiccant.