
International Standard



5317

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Fertilizers — Determination of water-soluble potassium content — Preparation of the test solution

Engrais — Dosage du potassium soluble dans l'eau — Préparation de la solution d'essai

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (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 authorized 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 5317 was developed by Technical Committee ISO/TC 134, *Fertilizers and soil conditioners*, and was circulated to the member bodies in February 1982.

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

Austria	India	Poland
Bulgaria	Israel	Portugal
China	Italy	Romania
Czechoslovakia	Kenya	South Africa, Rep. of
Egypt, Arab Rep. of	Korea, Rep. of	Sri Lanka
France	Netherlands	Thailand
Germany, F.R.	New Zealand	United Kingdom
Hungary	Norway	USSR

The member body of the following country expressed disapproval of the document on technical grounds:

USA

Fertilizers — Determination of water-soluble potassium content — Preparation of the test solution

1 Scope and field of application

This International Standard specifies the reference method for the preparation of test solutions of fertilizers for the subsequent determination of their water-soluble potassium contents.

2 Principle

Boiling of a test portion with water.

3 Reagent

Use only distilled water or water of equivalent purity.

4 Apparatus

Ordinary laboratory apparatus, and

4.1 Flat-bottomed flask, of capacity 750 ml.

4.2 One-mark volumetric flask, of capacity 1 000 ml, complying with the requirements of ISO 1042¹⁾, class B (maximum permitted error: $\pm 0,80$ ml).

5 Preparation of the test sample

Pretreatment of test samples of fertilizers for the determination of potassium content will form the subject of a future International Standard.

6 Procedure

6.1 Test portion

Weigh, to the nearest 0,001 g, 5 g of the prepared test sample (see clause 5).

6.2 Dissolution

Transfer the test portion (6.1) to the flask (4.1) with 400 ml of water.

Bring to the boil and continue boiling for 30 min.

Cool the contents of the flask and transfer to the one-mark volumetric flask (4.2). Dilute to the mark, mix well and filter into a dry beaker. Discard the first 50 ml of filtrate.

7 Test report

The test report for the subsequent determination of the water-soluble potassium content shall include the following information relevant to the preparation of the test solution :

- a) all the information necessary for the complete identification of the sample;
- b) a reference to this International Standard;
- c) any operations not specified in this International Standard, or regarded as optional, as well as any incidents likely to affect the results of the determination of water-soluble potassium content.

1) ISO 1042, *Laboratory glassware — One-mark volumetric flasks*.