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Solid fertilizers — Determination of urea nitrogen content — Gravimetric method using xanthidrol

*Engrais solides — Détermination de la teneur en azote sous forme
d'urée — Méthode gravimétrique utilisant du xanthidrol*



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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 preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Solid fertilizers — Determination of urea nitrogen content — Gravimetric method using xanthidrol

1 Scope

This International Standard specifies a gravimetric method for the determination of the urea nitrogen content of fertilizers. This method is not applicable to fertilizers containing cyanamide or the condensation products of urea and aldehydes (e.g. urea-formaldehyde condensate, dicyandiamide or isobutylidene diurea).

NOTE 1 If biuret is present in the fertilizer, it will be precipitated during the determination but the amount likely to be present is such that the effect on the results of the determination will be negligible.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards in-

dicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 648:1977, *Laboratory glassware — One-mark pipettes*.

ISO 1042:1983, *Laboratory glassware — One-mark volumetric flasks*.

ISO 3310-1:1990, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*.

ISO 8358:1991, *Solid fertilizers — Preparation of samples for chemical and physical analysis*.

3 Principle

Precipitation of the urea with xanthidrol in acetic acid solution. Filtration of the dixanthylurea precipitate, drying and weighing.

4 Reaction

See figure 1.