



BSI Standards Publication

**Inorganic fertilizers — Determination of
the chloride content in ammonium nitrate
fertilizers of high nitrogen content**

National foreword

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The UK participation in its preparation was entrusted to Technical Committee CII/37, Fertilisers and related chemicals.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

**Inorganic fertilizers - Determination of the chloride
content in ammonium nitrate fertilizers of high nitrogen
content**

Engrais inorganiques - Détermination de la teneur en
chlorure des engrais à base de nitrate d'ammonium à
forte teneur en azote

Anorganische Düngemittel - Bestimmung des
Chloridgehaltes in Ammoniumnitratdüngemitteln mit
hohem Stickstoffgehalt

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European foreword

This document (CEN/TS 17761:2022) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

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1 Scope

This document specifies a method for the determination of the chloride content in ammonium nitrate fertilizers of high nitrogen content.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1482-2, *Fertilizers and liming materials — Sampling and sample preparation — Part 2: Sample preparation*

EN 12944-1, *Fertilizers and liming materials — Vocabulary — Part 1: General terms*

EN 12944-2, *Fertilizers and liming materials — Vocabulary — Part 2: Terms relating to fertilizers*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1 and EN 12944-2 apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

4 Principle

Chloride ions dissolved in water are determined by potentiometric titration with silver nitrate in an acidic medium.

5 Reagents

Use only reagents of recognized analytical grade, unless otherwise specified.

5.1 Distilled or demineralized water, free from chloride ions.

5.2 Acetone, analytical grade.

5.3 Concentrated nitric acid, density $\rho = 1,40$ g/ml, at 20 °C.

5.4 Silver nitrate stock solution, substance concentration $c = 0,100$ mol/l.

Store this solution in a brown glass bottle. A commercially available standard solution of at least 0,100 mol/l may be used.

5.5 Silver nitrate solution, $c = 0,004$ mol/l.

Prepare this solution at the time of use.

5.6 Potassium chloride (KCl), analytical grade.

5.7 Potassium chloride (KCl) stock solution, $c = 0,100$ mol/l.