



BSI Standards Publication

Fertilizers — Determination of N-(n-Butyl)thiophosphoric acid triamide (NBPT) and N-(n-Propyl)thiophosphoric acid triamide (NPPT) — Method using high-performance liquid chromatography (HPLC)

National foreword

This British Standard is the UK implementation of EN 16651:2015.

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 secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015.
Published by BSI Standards Limited 2015

ISBN 978 0 580 83533 9
ICS 65.080

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2015.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 16651

May 2015

ICS 65.080

English Version

Fertilizers - Determination of N-(n-Butyl)thiophosphoric acid triamide (NBPT) and N-(n-Propyl)thiophosphoric acid triamide (NPPT) - Method using high-performance liquid chromatography (HPLC)

Engrais - Dosage du N-(n-butyl)triamide de l'acide thiophosphorique (NBPT) et du N-(n-propyl)triamide de l'acide thiophosphorique (NPPT) - Méthode par chromatographie liquide à haute performance (HPLC)

Düngemittel - Bestimmung von N-(n-Butyl)thiophosphorsäuretriamid (NBPT) und N-(n-Propyl)thiophosphorsäuretriamid (NPPT) - Verfahren mit Hochleistungs-Flüssigchromatographie (HPLC)

This European Standard was approved by CEN on 16 April 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principle.....	4
5 Reagents.....	4
6 Apparatus	5
7 Sampling.....	6
8 Procedure	6
8.1 Preparation of the test solution.....	6
8.2 Calibration	6
8.3 Blank test.....	6
8.4 Calculation and expression of the results	6
8.4.1 Concentration of NBPT	6
8.4.2 Concentration of NPPT	7
8.4.3 External response factors.....	7
8.4.4 Calculation of the total content.....	8
8.5 Environmental aspects	8
9 Precision	8
9.1 Inter-laboratory test	8
9.2 Repeatability.....	8
9.3 Reproducibility.....	8
10 Test report	9
Annex A (informative) Results of the inter-laboratory test	10
Bibliography	11

Foreword

This document (EN 16651:2015) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.