

INTERNATIONAL  
STANDARD

ISO  
17322

First edition  
2015-06-01

---

---

---

**Fertilizers and soil conditioners —  
Analytical methods for Sulfur Coated  
Urea (SCU)**

*Matières fertilisantes — Méthodes analytiques pour l'urée enrobée  
de soufre (SCU)*



Reference number  
ISO 17322:2015(E)

© ISO 2015



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
[copyright@iso.org](mailto:copyright@iso.org)  
[www.iso.org](http://www.iso.org)

## Contents

	Page
<b>Foreword</b>	<b>v</b>
<b>Introduction</b>	<b>vi</b>
<b>1 Scope</b>	<b>1</b>
<b>2 Normative references</b>	<b>1</b>
<b>3 Sampling and sample preparation</b>	<b>1</b>
<b>4 Determination of the appearance</b>	<b>1</b>
<b>5 Determination of the mass fraction of total nitrogen</b>	<b>1</b>
<b>6 Determination of 1DDR and 7DDR</b>	<b>1</b>
6.1 Titrimetric method after distillation	1
6.1.1 Principle	1
6.1.2 Reagents	1
6.1.3 Apparatus	2
6.1.4 Procedure	2
6.1.5 Calculation	2
6.2 Refractometer method	3
6.2.1 Principle	3
6.2.2 Reagents	3
6.2.3 Apparatus	3
6.2.4 Procedure	4
6.2.5 Calculation	5
<b>7 Determination of the mass fraction of sulfur</b>	<b>6</b>
7.1 Principle	6
7.2 Reagents	6
7.3 Apparatus	6
7.4 Procedure	6
7.4.1 Determination of the sulfur content	6
7.4.2 Blank test	7
7.5 Calculation	7
<b>8 Determination of the mass fraction of biuret</b>	<b>7</b>
8.1 Principle	7
8.2 Reagents	8
8.3 Apparatus	8
8.4 Procedure	8
8.4.1 Preparation of the calibration curve	8
8.4.2 Preparation of the solution to be analysed	9
8.5 Calculation	9
<b>9 Determination of the water content</b>	<b>10</b>
9.1 Principle	10
9.2 Reagents	10
9.3 Apparatus	10
9.4 Installation and test of the Karl Fischer titrator	10
9.5 Procedure	11
9.5.1 Standardization of the Karl Fischer reagent	11
9.5.2 Determination	11
9.6 Calculation	11
9.6.1 Water equivalent of the Karl Fischer reagent	11
9.6.2 Water content of the sample	12
<b>10 Determination of particle size</b>	<b>12</b>
<b>11 Precision</b>	<b>12</b>
11.1 Ring test	12