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

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



Reference number
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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Sampling and sample preparation	1
4 Determination of the appearance	1
5 Determination of the mass fraction of total nitrogen	1
6 Determination of 1DDR and 7DDR	1
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
7 Determination of the mass fraction of sulfur	6
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
8 Determination of the mass fraction of biuret	7
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
9 Determination of the water content	10
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
10 Determination of particle size	12
11 Precision	12
11.1 Ring test.....	12

This is a preview of "ISO 17322:2015". [Click here to purchase the full version from the ANSI store.](#)

11.2	Repeatability.....	12
11.3	Reproducibility.....	13
12	Test report.....	13
Annex A	(informative) Interlaboratory testing.....	14
Bibliography	48

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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 134, *Fertilizers and soil conditioners*.

Introduction

Sulfur Coated Urea (SCU) is a coated, slow release fertilizer consisting of urea particles coated with sulfur, which was first developed by the Tennessee Valley Authority's National Fertilizer Development Center (TVA/NFDC), Alabama in 1961, and produced commercially in 1967. SCU is made by coating urea with sulfur and sealant. It contains 30 % to 40 % nitrogen and 10 % to 30 % sulfur. The main coating material of SCU is sulfur. Sulfur is insoluble in water and its chemical properties are stable, thus, it is an impermeable coating material. In addition, sulfur itself is a secondary nutrient and it does not pollute the soil.

This International Standard specifies analytical methods, including mass fraction of total nitrogen, one-day dissolution rate (1DDR), seven-day dissolution rate (7DDR), mass fraction of sulfur, mass fraction of biuret, mass fraction of water (H₂O), and SGN and UI of SCU. There are two methods for determining of one-day dissolution rate (1DDR) and seven-day dissolution rate (7DDR): one is titrimetric method after distillation, the other is refractometer method which is a fast analytical method.

NOTE Some countries or regions might have published other standards covering analytical methods for SCU.