

SCHEDULE 2

METHODS OF ANALYSIS

16.

METHODS OF ANALYSIS AND TEST PROCEDURES FOR AMMONIUM NITRATE FERTILISERS CONTAINING MORE THAN 28% NITROGEN BY WEIGHT

E. Determination of the Particle Size

1 SCOPE AND FIELD OF APPLICATION

1. This method defines the procedure for the test sieving of straight ammonium nitrate fertilisers containing more than 28% nitrogen by weight.

2 PRINCIPLE

2. The test sample is sieved on a nest of three sieves, either by hand or by mechanical means. The mass retained on each sieve is recorded and the percentage of material passing the required sieves are calculated.

3 APPARATUS

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3.1 200 mm diameter woven-wire test sieves to BS 410 (1986) with apertures of 2.0 mm, 1.0 mm and 0.5 mm respectively of standard ranges. One lid and one receiver for the sieves.

3.2 Balance to weigh to 0.1 gram.

3.3 Mechanical sieve shaker (if available) capable of imparting both vertical and horizontal motion to the test sample.

4 PROCEDURE

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4.1 The sample is divided representatively into portions of approximately 100 grams.

4.2 Weigh one of these portions to the nearest 0.1 gram.

4.3 Arrange the nest of sieves in ascending order; receiver 0.5 mm, 1 mm, 2 mm and place the weighed test portion on the top sieve. Fit the lid to the top of the nest of sieves.

4.4 Shake by hand or machine, imparting both a vertical and horizontal motion and if by hand, tapping occasionally. Continue this process for 10 minutes or until the quantity passing through each sieve in one minute is less than 0.1 gram.

4.5 Remove the sieves from the nest in turn and collect the material retained, brush gently from the reverse side with a soft brush, if necessary.

4.6 Weigh the material retained on each sieve and that collected in the receiver, to the nearest 0.1 gram.

5 EVALUATION OF THE RESULTS

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Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

5.1 Convert the fraction masses to a percentage of the total of the fraction masses (not of the original charge).

Calculate the percentage in the receiver (i.e. < 0.5 mm): A%

Calculate the percentage retained on the 0.5 mm sieve: B%

Calculate the percentage passing 1.0 mm, i.e. (A + B)%

The sum of the fraction masses should be within 2% of the initial mass taken.

5.2 At least two separate analyses should be carried out and the individual results for A should not differ by more than 1.0% absolute and for B by more than 1.5% absolute. Repeat the test if this is not the case.

6 EXPRESSION OF RESULTS

6. Report the mean of the two values for A on the one hand and for A + B on the other hand.