SCHEDULE 2

METHODS OF ANALYSIS

PART I

26c.

REMOVAL OF ORGANIC COMPOUNDS FROM FERTILISER EXTRACTS

1 SCOPE

1. This method defines a procedure for removing organic compounds from fertiliser extracts.

2 FIELD OF APPLICATION

2. This procedure is applicable to analysing samples of fertilisers extracted by Methods 26a and 26b for which a declaration of total and/or water — soluble element is required.

(Note) The presence of small quantities of organic matter usually does not affect determinations by means of atomic absorption spectrometry.

3 PRINCIPLE

3. The organic compounds in an aliquot portion of the extract are oxidized with hydrogen peroxide.

4 REAGENTS

4

4.1. Diluted hydrochloric acid solution, about 0.5 M

Mix 1 volume of hydrochloric acid (ρ = 1.18 g/ml) with 20 volumes of water.

4.2. Hydrogen peroxide solution (30% H_2O_2, p = 1.11 g/ml), free from trace elements.

5 APPARATUS

5. Electric hotplate with variable temperature control.

6 PROCEDURE

6. Take 25 ml of extract solution obtained by Method 26a or 26b and place in a 100 ml beaker. In the case of Method 26b, add 5 ml of the dilute hydrochloric acid solution (4.1). Then add 5 ml of the hydrogen peroxide solution (4.2). Cover with a watchglass. Allow oxidation to occur at room temperature for about one hour, then bring gradually to boiling and boil for half an hour. If necessary, add a further 5 ml of the hydrogen peroxide to the solution once it has cooled. Then boil to remove the excess hydrogen peroxide. Allow to cool and transfer quantitatively to a 50 ml volumetric flask and make up to volume. Filter where necessary.

Account should be taken of this dilution when taking aliquot portions and calculating the percentage of trace element in the product.