

SCHEDULE 2

METHODS OF ANALYSIS

PART II

8.2

DETERMINATION OF MAGNESIUM BY ATOMIC ABSORPTION SPECTROPHOTOMETRY

7 EXPRESSION OF RESULTS

7. Calculate the amount of magnesium (Mg) or magnesium oxide (MgO) in the sample by reference to the calibration solutions and taking into consideration the blank.

The percentage of magnesium (Mg) in the fertiliser is equal to:

$$\text{Mg (\%)} = \frac{(X_s - X_b) D_1 (200/10) D_2 500.100}{1,000.1,000 M}$$

X_s = the concentration of the solution to be analysed recorded on the calibration curve, in $\mu\text{g/ml}$.

X_b = the concentration of the blank solution as recorded on the calibration curve, in $\mu\text{g/ml}$

D_1 = the dilution factor when the solution is diluted (6.1).

It is equal to four if 25 ml are taken.

It is equal to one when the solution is not diluted.

D_2 = the dilution factor in 6.3.

M = the mass of the test sample at the time of extraction.

$$\text{MgO (\%)} = \text{Mg (\%)} / 0.6$$