

DIN EN 15621:2017-10 (E)

Animal feeding stuffs - Methods of sampling and analysis - Determination of calcium, sodium, phosphorus, magnesium, potassium, sulphur, iron, zinc, copper, manganese and cobalt after pressure digestion by ICP-AES

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Principle	5
5	Reagents	6
6	Apparatus	6
7	Sampling	7
8	Preparation of the test sample	7
8.1	General	7
8.2	Animal feeding stuffs which can be ground as such	8
8.3	Liquid animal feeding stuffs	8
9	Procedure	8
9.1	Pressure digestion - Preparation of the blank test solution and the test solution	8
9.2	Extractable lead in minerals and feeds containing phyllosilicates (e.g. kaolinite clay) - extraction with diluted nitric acid	9
9.3	Calibration	9
9.4	Determination	9
10	Calculation and expression of the results	11
10.1	General	11
10.2	External calibration	11
10.3	Standard addition method with only one addition	11
10.4	Standard addition method with several additions	12
10.5	Calculation of the element content in the sample	12
11	Precision	13
11.1	Inter-laboratory test	13
11.2	Repeatability	13
11.3	Reproducibility	13
12	Test report	21
Annex A (informative) Results of the inter-laboratory test		22
Annex B (informative) Notes on the detection technique, interferences and quantification, pressure digestion		38
B.1	General	38
B.2	Interferences	38

B.2.1	General	38
B.2.2	Spectral line interference	38
B.2.3	Ionization interferences	38
B.2.4	Physical interferences	38
B.3	Quantification and matrix matching	39
B.3.1	General	39
B.3.2	Calibration curve	39
B.3.3	Matrix matching	39
B.3.4	Standard addition	39
B.4	Pressure digestion conditions	40
B.4.1	General	40
B.4.2	Initial sample mass and acid volumes	40
B.4.3	Digestion temperature	40
B.4.4	Digestion time	40
B.4.5	Digestion solution	40
B.4.6	Blank solution	40
Bibliography		41