

First Commission Directive of 25 October 1985 on methods
of analysis for edible caseins and caseinates (85/503/EEC)

- Article 1 Member States shall take all measures necessary to ensure that...
Article 2 Member States shall bring into force the laws, regulations and...
Article 3 This Directive is addressed to the Member States.
Signature

ANNEX I

SCOPE OF THE FIRST COMMUNITY METHODS OF ANALYSIS
DIRECTIVE FOR EDIBLE CASEINS AND CASEINATES

General Provisions Determination of moisture in: acid caseins
using method...

ANNEX II

METHODS OF ANALYSIS RELATING TO THE
COMPOSITION OF EDIBLE CASEINS AND CASEINATES

GENERAL PROVISIONS

1. PREPARATION OF THE ANALYSIS SAMPLE
 - 1.1. General
 - 1.2. Preparation of the sample for analysis in the laboratory
 - 1.2.1. Thoroughly mix and break down any lumps, etc., in the...
 - 1.2.2. Transfer a representative portion of the sample, i.e. about 50...
 - 1.2.3. If the 50 gram portion completely or almost completely passes...
 - 1.2.4. Otherwise, grind the 50 gram portion, using the grinding device...
 - 1.2.5. After the test sample has been prepared, any determination should...
 - 1.3. Containers
2. REAGENTS
 - 2.1. Water
 - 2.1.1. Wherever mention is made to water for solution, dilution or...
 - 2.1.2. Wherever reference is made to 'solution' or 'dilution' without further...
 - 2.2. Chemicals
3. EQUIPMENT
 - 3.1. Lists of equipment
 - 3.2. Analytical balance
 - 3.3. Test sieve
 - 3.4. Grinding device
4. EXPRESSION OF RESULTS
 - 4.1. Results

- 4.2. Calculation of percentage
5. TEST REPORT

METHOD 1

DETERMINATION OF MOISTURE CONTENT

1. SCOPE AND FIELD OF APPLICATION
2. DEFINITION
3. PRINCIPLE
4. APPARATUS
 - 4.1. Analytical balance
 - 4.2. Dishes, flat-bottomed and of material non-corrodible under the conditions of...
 - 4.3. Atmospheric pressure drying oven, well ventilated, thermostatically controlled with temperature...
 - 4.4. Desiccator, containing freshly activated silica gel with a water content...
 - 4.5. Suitable device for handling dishes, e.g. laboratory tongs.
5. PROCEDURE
 - 5.1. Preparation of the test sample
 - 5.2. Preparation of the dish
 - 5.2.1. Heat the uncovered dish and its lid (4.2) in the...
 - 5.2.2. Place the lid on the dish, transfer the covered dish...
 - 5.3. Test portion
 - 5.4. Determination
 - 5.4.1. Uncover the dish and place it with its lid in...
 - 5.4.2. Replace the lid on the dish, transfer to the desiccator,...
 - 5.4.3. Uncover the dish and heat it again, with its lid,...
 - 5.4.4. If the mass obtained in 5.4.3 is less than the...
6. EXPRESSION OF RESULTS
 - 6.1. Method of calculation
 - 6.2. Repeatability

METHOD 2

DETERMINATION OF PROTEIN CONTENT

1. SCOPE AND FIELD OF APPLICATION
2. DEFINITION
3. PRINCIPLE
4. REAGENTS
 - 4.1. Sulphuric acid, concentrated, S2O 1,84 g/ml.
 - 4.2. Potassium sulphate, anhydrous (K₂SO₄).
 - 4.3. Copper (II) sulphate pentahydrate (CuSO₄5H₂O).
 - 4.4. Sucrose (C₁₂H₂₂O₁₁).
 - 4.5. Boric acid, 40-g/l solution.
 - 4.6. Sodium hydroxide, concentrated aqueous solution 30 % (m/m), carbonate free....
 - 4.7. Hydrochloric acid, 0,1 mol/l.
 - 4.8. Mixed indicator. Mix equal volumes of a 2 g/l solution...
5. APPARATUS
 - 5.1. Analytical balance
 - 5.2. Kjeldahl flask, 500 ml capacity.
 - 5.3. Digestion apparatus to hold the Kjeldahl flask (5.2) in an...

- 5.4. Condenser with straight inner tube.
- 5.5. Outlet tube with safety bulb connected to the lower end...
- 5.6. Splash-head connected to the Kjeldahl flask (5.2) and to the...
- 5.7. Conical flask, 500 ml capacity.
- 5.8. Graduated cylinders, 50 ml and 100 ml capacity.
- 5.9. Burette, 50 ml capacity, graduated in 0,1 ml.
- 5.10. Boiling aids:
 - 5.10.1. For the digestion: small pieces of hard porcelain, or glass...
 - 5.10.2. For the distillation; freshly calcined pieces of pumice.
- 6. PROCEDURE
 - 6.1. Preparation of the test sample
 - 6.2. Test for presence of ammoniacal nitrogen
 - 6.3. Blank test
 - 6.4. Test portion
 - 6.5. Determination
 - 6.5.1. Transfer to the flask a few pieces of porcelain or...
 - 6.5.2. Transfer into the conical flask (5.7) 50 ml of the...
 - 6.5.3. Titrate the distillate in the conical flask, using the standard...
- 7. EXPRESSION OF RESULTS
 - 7.1. Formula and method of calculation
 - 7.2. Repeatability

METHOD 3

DETERMINATION OF TITRATABLE ACIDITY

- 1. SCOPE AND FIELD OF APPLICATION
- 2. DEFINITION
- 3. PRINCIPLE
- 4. REAGENTS
 - 4.1. Sodium hydroxide solution: 0,1 Mol/l.
 - 4.2. Phenolphthalein indicator solution, 10 g/l in ethanol (95 % V/V)...
- 5. APPARATUS
 - 5.1. Analytical balance
 - 5.2. Conical flask, 500 ml capacity, with ground neck and fitted...
 - 5.3. One-mark pipette, 100 ml capacity.
 - 5.4. Pipette, suitable for measuring 0,5 ml of indicator solution (4.2)...
 - 5.5. Conical flask, 250 ml capacity.
 - 5.6. Measuring cylinder, 250 ml capacity.
 - 5.7. Burette, graduated in 0,1 ml.
 - 5.8. Water bath, capable of being controlled at a temperature of...
 - 5.9. Appropriate filter
- 6. PROCEDURE
 - 6.1. Preparation of the test sample
 - 6.2. Test portion
 - 6.3. Determination
- 7. EXPRESSION OF RESULTS

- 7.1. Formula and method of calculation
- 7.2. Repeatability

METHOD 4

DETERMINATION OF ASH (including P2O5)

1. SCOPE AND FIELD OF APPLICATION
2. DEFINITION
3. PRINCIPLE
4. REAGENTS
 - 4.1. Magnesium acetate tetrahydrate solution, 120 g/l. Dissolve 120 grams of...
5. APPARATUS
 - 5.1. Analytical balance
 - 5.2. One-mark pipette, 5 ml.
 - 5.3. Silica or platinum dishes, about 70 mm diameter and 25...
 - 5.4. Drying oven, capable of being controlled at 102 oC ±...
 - 5.5. Electrical furnace, capable of being controlled at 825 oC ±...
 - 5.6. Boiling water bath
 - 5.7. Desiccator containing freshly activated silica gel with a water content...
6. PROCEDURE
 - 6.1. Preparation of the test sample
 - 6.2. Preparation of the dishes
 - 6.3. Test portion
 - 6.4. Determination
7. EXPRESSION OF RESULTS
 - 7.1. Method of calculation
 - 7.2. Repeatability

METHOD 5

DETERMINATION OF ASH (including P2O5)

1. SCOPE AND FIELD OF APPLICATION
2. DEFINITION
3. PRINCIPLE
4. APPARATUS
 - 4.1. Analytical balance
 - 4.2. Silica or platinum dish, about 70 mm diameter and 25...
 - 4.3. Electrical furnace with air circulation, capable of being controlled at...
 - 4.4. Desiccator, containing freshly activated silica gel with a water content...
5. PROCEDURE
 - 5.1. Preparation of the test sample
 - 5.2. Preparation of the dish
 - 5.3. Test portion
 - 5.4. Determination
6. EXPRESSION OF RESULTS
 - 6.1. Method of calculation and formula
 - 6.2. Repeatability

METHOD 6

DETERMINATION OF pH

1. SCOPE AND FIELD OF APPLICATION

2. DEFINITION
3. PRINCIPLE
4. REAGENTS
 - 4.1. Buffer solutions, for calibration of the pH meter (5.2)
5. APPARATUS
 - 5.1. Balance, accuracy 0,1 grams.
 - 5.2. pH meter, minimum sensitivity 0,05 pH unit, with a suitably...
 - 5.3. Thermometer, accuracy 0,5 oC.
 - 5.4. Conical flask, capacity 100 ml, fitted with a ground glass...
 - 5.5. Beaker, capacity 50 ml.
 - 5.6. Mixer
 - 5.7. Beaker, for the mixer (5.6) of at least 250 ml...
6. PROCEDURE
 - 6.1. Preparation of the test sample
 - 6.2. Determination
 - 6.2.1. Calibration of pH meter
 - NOTES
 1. The calibration should be carried out while the flasks are...
 2. If a series of samples is being tested, check the...
 - 6.2.2. Preparation of the test solution
 - 6.2.3. Measurement of pH
 - 6.2.3.1. Pour about 20 ml of the solution into the beaker...
 - 6.2.3.2. Measure the pH.
7. EXPRESSION OF RESULTS
 - 7.1. Recording of pH
 - 7.2. Repeatability

Status: EU Directives are being published on this site to aid cross referencing from UK legislation. After IP completion day (31 December 2020 11pm) no further amendments will be applied to this version.

- (1) [OJ No L 237, 26. 8. 1983, p. 25.](#)