COEI-1-POTCAS Potassium caseinate

1. Objective, origin and scope of application

Potassium caseinate is obtained from fresh or pasteurized skimmed milk by acid coagulation of the casein (see monograph), neutralization using potassium hydroxide and drying with a spray dryer. It is used for the fining of wines.

2. Labelling

The label should indicate the product's purity and safety and storage conditions.

3. Properties

Potassium caseinate is a white powder with a slightly yellowish tint, whose characteristic odor is typical of that of milk proteins. It exhibits no unusual odor or taste. It yields a colloidal solution in water.

4. Tests

4.1. pH

In a water solution with 5 g of potassium caseinate per 100 ml of water, the pH should be between 6.0 and 8.0 $\pm$ 0.5

4.2. Desiccation loss

As determined upon constant weight for a sample of approximately 2 g, weight loss at 100-105 °C should not be greater than 10%.

All of the following limiting values are for dry product.

4.3. Ash

Without exceeding 550 °C, burn the residue from the desiccation loss test. The weight of the ash should not be greater than 7%.

4.4. Preparing the Test Solution

After weighing, dissolve the ash in 2 ml of concentrated hydrochloric acid (R) and 10 ml of water. Heat to trigger dissolution and fill to 50 ml with water.

4.5. Potassium

Determine the potassium content using flame photometry on the test solution prepared under Paragraph 4.4. (Potassium content should be less than 2 pp 100).

4.6. Iron

Determine the iron content using atomic absorption spectrophotometry on the test

solution prepared under paragraph 4.4. (Iron content should be less than 200 mg/kg).

4.7. Lead

Using the technique described in the Compendium, determine the lead content in the test solution (4.4). (Lead content should be less than 5 mg/kg.)

4.8. Mercury

Using the technique described in the annex, determine the mercury content in the test solution (4.4). (Mercury content should be less than 1 mg/kg.)

4.9. Arsenic

Using the technique described in the annex, determine lead the arsenic content in the (4.4. (Arsenic content should be less than 3 mg/kg.)

4.10. Total Nitrogen

Place about 0.20 g of precisely-weighed potassium caseinate in a mineralization cucurbit with 15 ml of concentrated sulfuric acid (R), 2 g of mineralization catalyst (R) and proceed as indicated in the method described in the Annex. Total nitrogen content should not be less than 13 pp 100.

4.11. Fat*s*

The fat content measured as per the method described in the Annex should not exceed 2 pp 100 by weight.

5. Storage

Potassium caseinate should be stored in airtight containers, for example, in paper bags lined with polyethylene, at a temperature of between 5 and 20 °C at a relative humidity of less than 65%. The shelf life of potassium caseinate is 24 months.