

## **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

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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. Fats

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.