

**COEI-1-CELLUL Cellulose****INS N°: 460****1. Object, origin and field of application**

Cellulose is obtained from mechanical processing and purification from an alpha-cellulose, which comes directly from vegetable fibres. Its molecular weight is  $1.5 \cdot 10^5$  Dalton. Cellulose fibre is used for its absorbency traits, mainly for the filtration of wine.

**2. Labelling**

The concentration of the product and whether it was mixed, must be indicated on the label in addition to the change.

**3. Characteristics**

Cellulose is a white odourless, flavourless, fibre. It is insoluble in water.

**4. Test trials**

## 4.1. pH

- Mix 5g of cellulose in 40 ml of water free of carbon dioxide, for 20 minutes.
- Centrifuge.
- The pH of the supernatant will be between 5.0 and 7.5.

## 4.2. Humidity and volatile matter

- Put 5 g of cellulose in an incubator at 105°C for 3 hours.
- Mass loss must not exceed 8%.

**All of the maximum limits set below refer to the dried product.**

## 4.3. Starch

- Add 90 ml of water (R) to 10 g of microcrystalline cellulose and boil for 5 minutes.

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- Filter when hot. Cool and add 0.1 ml of 0.05 Miodine to the filtrate.
- A blue colour should not appear.

#### 4.4. Ashes

- Incinerate at  $600 \pm 25^{\circ}\text{C}$  the residue obtained according to point 4.2, for 4 hours.
- The weight of the ashes should not exceed 2%.

#### 4.5. Preparation of the test solution

- After weighing, dissolve ashes in 2 ml of concentrated hydrochloric acid (R) and 10 ml of water (R).
- Heat in order to dissolve and fill the water up to 50 ml. (R).

#### 4.6. Iron

Determine iron using an atomic absorption spectrophotometer (following the method described in Chapter II on the test solution (4.5)).

Iron content must be less than 100 mg/kg.

#### 4.7. Lead

Measure out lead following the method described in Chapter II on the test solution (4.5). Lead content must be less than 5 mg/kg.

#### 4.8. Mercury

Measure out mercury following the method described in Chapter II on the test solution (4.5).

Mercury content must be less than 1 mg/kg.

#### 4.9. Cadmium

Measure out cadmium as described in Chapter II on the test solution (4.5).

Cadmium content must be less than 1 mg/kg.

#### 4.10. Arsenic

Measure out arsenic following the method described in Chapter II on the test solution (4.5).

Arsenic content must be less than 2 mg/kg.

#### 4.11. Calcium

Determine calcium using an atomic absorption spectrophotometer (see method described in Chapter II on the test solution (4.5)). Calcium content must be less than

500 mg/kg.

4.12. Water soluble substances

Evaporate the aliquot part of the supernatant obtained when measuring the pH level at point 4.1, in an incubator at 105°C for 3 hours. The soluble substance content should not exceed 0.25%.

**5. Storing conditions**

Cellulose should be kept in a well-ventilated place in sealed packages away from volatile substances susceptible of being adsorbed.