COEI-1-CELLUL Cellulose

$(C_{12}H_{20}O_{10})n$

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. 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.

- 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 ± 25°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.