ITALIAN CYPRESS FOR HOMOEOPATHIC PREPARATIONS

CUPRESSUS SEMPERVIRENS FOR HOMOEOPATHIC PREPARATIONS

Cupressus sempervirens ad praeparationes homoeopathicas

DEFINITION

Fresh, leafy twig, bearing immature cones of *Cupressus sempervirens* L.

CHARACTERS

Macroscopic characters described under identification.

Turpentine odour.

IDENTIFICATION

Short cylindric twig, very often ramified at right angles, bearing small twigs with quadrangular or sub-rounded section. Persistent leaves, reduced to small, opposite, triangular, dark green, scales, with glandular backs overlapping each other on four rows and plastered on the stalk they entirely cover. Young, green, lustrous, rounded cone, about 2 to 3 cm in diameter, composed of 10 or so ligneous scales, fleshy and enlarged at the apex, opposite forming a cross, mucronate in their middle.

TESTS

Foreign matter (*2.8.2*): maximum 5 per cent.

Loss on drying (*2.2.32*): minimum 40.0 per cent determined on 5.0 g of finely-cut drug, by drying in an oven at 105 °C for 2 h.

STOCK

DEFINITION

Italian cypress mother tincture complies with the requirements of the general technique for the preparation of mother tinctures (see *Homoeopathic Preparations (1038)* and French Pharmacopoeia Authority Supplement). The mother tincture is prepared with ethanol (65 per cent *V/V*) using fresh, leafy twig, bearing immature cones of *Cupressus sempervirens* L.

The General Chapters and General Monographs of the European Pharmacopoeia and Preamble of the French Pharmacopoeia apply.

Content: minimum 0.06 per cent *m/m* of total flavonoids, expressed as cupressoflavone ($C_{30}H_{18}O_{10}$; M_r 538.5).

CHARACTERS

Appearance: brownish liquid.

Resinous odour.

IDENTIFICATION

Thin layer chromatography (*2.2.27*).

Test solution. Mother tincture.

Reference solution. Dissolve 10 mg of *β-sitosterol R* and 10 mg of *oleanolic acid R* in 10 mL of *methanol R*.

Plate: *TLC silica gel plate R*.

Mobile phase: *acetone R, methylene chloride R* (5:95 *V/V).*

Application: 20 µL, as bands.

Development: over a path of 10 cm.

Drying: in air.

Detection: spray with *anisaldehyde solution R.* Heat at 100-105 °C for 10 min. Examine in daylight.

Results: see below the sequence of zones present in the chromatograms obtained with the reference solution and the test solution. Furthermore other faint zones may be present in the chromatogram obtained with the test solution.

Top of the plate	
------	A purplish zone ------
β -sitosterol: a purplish zone	A large purplish zone
------	One–two purplish zones ------
Oleanolic acid: a purplish zone	Two purplish zones
Reference solution	**Test solution**

The General Chapters and General Monographs of the European Pharmacopoeia and Preamble of the French Pharmacopoeia apply.

TESTS

Ethanol (*2.9.10*). 60 per cent *V/V* to 70 per cent *V/V*.

Dry residue (*2.8.16*): minimum 1.5 per cent *m/m*.

ASSAY

Ultraviolet and visible absorption spectrophotometry (*2.2.25*).

Mother solution. In a 100.0 mL volumetric flask, place 10.00 g of mother tincture and dilute to 100.0 mL with *ethanol* (60 per cent *V/V*) *R*.

Test solution. In a 25.0 mL volumetric flask, place 2.0 mL of mother tincture, add 2.0 mL of a 20.0 g/L solution of *aluminium chloride R* in *methanol R*. Dilute to 25.0 mL with *methanol R*.

Compensation liquid. In a 25.0 mL volumetric flask, place 2.0 mL of mother tincture and dilute to 25.0 mL with *methanol R*.

Measure the absorbance of the test solution at 401 nm, 25 min later, in comparison with the compensation liquid.

Calculate the percentage content *m/m* of total flavonoids, expressed as cupressoflavone, from the expression:

$$\frac{A \times 1{,}250}{227 \times m}$$

i.e. taking the specific absorbance of cupressoflavone to be 227 at 401 nm.

A = absorbance of the test solution at 401 nm,
m = mass of the mother tincture sample, in grams.

The General Chapters and General Monographs of the European Pharmacopoeia and Preamble of the French Pharmacopoeia apply.