QUEEN OF THE NIGHT FOR HOMOEOPATHIC PREPARATIONS CACTUS GRANDIFLORUS FOR HOMOEOPATHIC PREPARATIONS

Selenicereus grandiflorus ad praeparationes homoeopathicas
Other Latine name used in homoeopathy : **Cereus grandiflorus**

DEFINITION

Fresh, young stem, with or without flower of *Selenicereus grandiflorus* (L.) Br. and R. (*Cactus grandiflorus* L., *Cereus grandiflorus* Mill.).

CHARACTERS

Flower with a vanilla fragrance.

IDENTIFICATION

Slightly grooved stem, quite cylindrical, 13-20 mm thick, bluish-green with 5-8 angles and showing areoles 10-15 mm spaced out, containing 7-11 acicular spines, 4-6 mm long, yellowish more or less grey, emerging from a white down. Very tall, ephemeral flower, 30 cm in diameter, arising from the stem on an elongated peduncle, pale green, covered with green, ciliate, elongated scales. White petals spatula-shaped and pointed. Pointed sepals, widely spread, orange-yellow. Numerous, curved stamens. Ovary topped by numerous yellow stigmas.

TESTS

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

Loss on drying (*2.2.32*) : minimum 80.0 per cent, determined on 5.0 g of finely-cut drug, by drying in an oven at 100-105 °C for 2 h.

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STOCK

DEFINITION

Queen of the night mother tincture is prepared with ethanol (65 per cent *V*/*V*) diluted to 1 to 20, using the fresh, young stem, with or without flower of *Selenicereus grandiflorus* (L.) Br. and R.

Content : minimum 0.007 per cent *m*/*m* of total flavonoids, expressed as rutin ($C_{27}H_{30}O_{16}$, 3 H_2O ; M_r 665).

PRODUCTION

Method 4c (2371). Drug fragmented into segments about 5-10 cm long. Maceration time : 3-6 weeks.

CHARACTERS

Pale green to pale yellow liquid.

IDENTIFICATION

Thin layer chromatography (*2.2.27*).

Test solution. Mother tincture.

Reference solution. Dissolve 10 mg of *rutin R* and 5 mg of *astragalin R* in 10 ml of *ethanol* (*96 per cent*) *R*.

Plate : TLC silica gel plate R.

Mobile phase : glacial acetic acid R, water R, butanol R, (10 :10 :80 *V*/*V*/*V*).

Application : 30 µl of test solution, 10 µl of reference solution, as bands.

Development : over a path of 10 cm.

Drying : in air.

Detection : first spray with a 10 g/l solution of *diphenylboric acid aminoethyl ester R* in *methanol R* then with a 50 g/l solution of *macrogol 400 R* in *methanol R*. Allow the plate to dry in air for about 30 min. Examine in ultraviolet light at 365 nm.

Results : see below the sequence of fluorescent zones present in the chromatograms obtained with the reference solution and the test solution. Further-

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more other faint fluorescent zones may be present in the chromatogram obtained with the test solution.

Top of the plate	
Astragalin : a greenish-yellow zone	
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	A greenish-yellow zone
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Rutin : an orange zone	
	A greenish-yellow zone
Reference solution	**Test solution**

TESTS

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

Dry residue (*2.8.16*) : minimum 0.7 per cent *m*/*m*.

ASSAY

Ultraviolet and visible absorption spectrophotometry (*2.2.25*).

Stock solution. Evaporate 2.500 g of mother tincture to dryness, under reduced pressure. Dilute the residue in 25.5 ml of a mixture of 10 volumes of *methanol R* and 100 volumes of *glacial acetic acid R*.

Test solution. In a 25.0 ml volumetric flask, place 10.0 ml of stock solution, add 10.0 ml of a solution of 25.0 g/l of *boric acid R* and 20.0 g/l of *oxalic acid R* in *anhydrous formic acid R* then dilute to 25.0 ml with *glacial acetic acid R*.

Compensation liquid.1. In a 25.0 ml volumetric flask, place 10.0 ml of stock solution, add 10.0 ml of *anhydrous formic acid R* and dilute to 25.0 ml with *glacial acetic acid R*.

Reference stock solution. In a 100.0 ml volumetric flask, dissolve 10.0 mg of *rutin CRS* in a mixture of 10 volumes of *methanol R* and 100 volumes of *glacial acetic acid R* and dilute to 100.0 ml with the same mixture.

Reference solution. In a 25.0 ml volumetric flask, place 2.0 ml of reference stock solution, add 8 ml of a mixture of 10 volumes of *methanol R* and 100 volumes of *glacial acetic acid R* and 10.0 ml of a solution of 25.0 g/l of *boric acid R* and 20.0 g/l of *oxalic acid R* in *anhydrous formic acid R* then dilute to 25.0 ml with *glacial acetic acid R*.

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Compensation liquid 2. In a 25.0 ml volumetric flask, place 2.0 ml of reference stock solution, add 8 ml of a mixture of 10 volumes of *methanol R* and 100 volumes of *glacial acetic acid R* and 10.0 ml of *anhydrous formic acid R* and dilute to 25.0 ml with *glacial acetic acid R*.

Thirty min after the addition of the last reagent, measure the absorbance of the test solution, at 420 nm, in comparison with compensation liquid 1 and the absorbance of the reference solution in comparison with compensation liquid 2.

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

$$\frac{A_1 \times m_2 \times 0.05 \times p}{A_2 \times m_1}$$

A_1 = absorbance of the test solution,

A_2 = absorbance of the reference solution,

m_1 = mass of the mother tincture sample in the test solution, in grams,

m_2 = mass of rutin sample in the reference solution, in grams,

p = percentage content of rutin in *rutin CRS*.

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