BILBERRY
FOR HOMOEOPATHIC PREPARATIONS

VACCINIUM MYRTILLUS
FOR HOMOEOPATHIC PREPARATIONS

Vaccinium myrtillus ad praeparationes homoeopathicas

The herbal drug complies with the monograph *Bilberry fruit, fresh (1602).*

STOCK

DEFINITION

Bilberry 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 (1/20) is prepared with ethanol (55 per cent *V/V*) using the fresh fruit of *Vaccinium myrtillus* L.

Content: minimum 0.01 per cent *m/m* of anthocyanosides, expressed as chloride 3-glucoside-cyanidol (chrysanthemin $C_{21}H_{21}ClO_{11}$; M_r 485.5).

CHARACTERS

Appearance: purple-red liquid.

IDENTIFICATION

A. Thin layer chromatography (*2.2.27*).

Test solution. Mother tincture.

Reference solution. Dissolve 5 mg of *chrysanthemin R* and 5 mg of *delphinidin chloride R* in 10 mL of *methanol R*.

Plate: *TLC silica gel plate R*.

Mobile phase: *anhydrous formic acid R, water R, butanol R* (16:19:65 *V/V/V).*

Application: 10 µL, as bands.

Development: over a path of 10 cm.

Drying: in air.

Detection: examine in daylight.

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

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	
Delphinidin chloride: a blue zone -----	-----
Chrysanthemin: a purplish-red zone -----	A main purplish-red zone A compact gathering of other main zones: - a purplish-red zone - several purplish-blue zones -----
Reference solution	**Test solution**

TESTS

Ethanol (*2.9.10*): 50 per cent *V/V* to 60 per cent *V/V*.

Dry residue (*2.8.16*): minimum 1.8 per cent *m/m*.

ASSAY

Ultraviolet and visible absorption spectrophotometry (*2.2.25*).

Test solution. In a 100.0 mL flask, place 1.000 g of mother tincture, add a solution of *hydrochloric acid* (0.1 per cent *V/V*) *R* in *methanol R.* and dilute with the same solvent.

Compensation liquid. Solution of *hydrochloric acid* (0.1 per cent *V/V*) *R* in *methanol R.*

Measure the absorbance of the solution at 528 nm in comparison with the compensation liquid.

Calculate the percentage content *m/m* of anthocyanosides, expressed as chloride 3-glucoside-cyanidol, from the expression:

$$\frac{A \times 100}{718 \times m}$$

i.e. taking the specific absorbance of chloride 3-glucoside-cyanidol to be 718 at 528 nm.

A = absorbance at 528 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.