



## Spectrophotometric determination of Octopirox in cosmetic compositions (e.g. shampoo) according to Pharma Qualitätskontrolle Report No. 1223 of Dec. 15<sup>th</sup>, 1977

### Assay

Dissolve 0.3 g of iron(II)sulfate ( $\text{FeSO}_4 \cdot 7 \text{H}_2\text{O}$ ) in 5 ml of water, add 0.3 ml of glacial acetic acid and dilute with methanol to 50 ml (= „iron reagent“).

Dissolve 20 mg of Octopirox standard substance, accurately weighed, precisely in 100 ml of 80 % acetic acid  
(= „standard solution“).

Dilute about 2.0 g of shampoo, accurately weighed, in a volumetric flask with 80 % acetic acid precisely to 50 ml  
(= „test sample solution“).

Pipet 10.0 ml of the „test sample solution“ into a 25 ml volumetric flask and 10.0 ml of the „standard solution“ into a second 25 ml flask.

A third 25 ml flask is used for the blank.

To each flask add 10 ml of 80 % acetic acid and 1.0 ml of „iron reagent“ and then fill to the mark with 80 % acetic acid.

After storage for one hour in the dark measure the absorbance of the solution containing the „test sample solution“ ( $A_T$ ) and that of the solution containing the „standard solution“ ( $A_S$ ) against the blank at 440 nm.

Content of Octopirox in shampoo in % (w/w) =

$$\frac{1}{20} \times \frac{A_T}{A_S} \times \frac{\text{weight of Octopirox Standard Substance (mg)}}{\text{weight of shampoo (g)}}$$