**Assay of Acetaminophen Suppositories**

**Procedure:**

* Weigh 5 suppositories , cut into small pieces with a knife , then weight an amount equivalent to 100 mg of acetaminophen , transfer to **separator funnel** , add 30 ml of solvent hexane , and mix to dissolve .
* Add 30 ml of water ( distilled) , shake gently , and allow the phases to separate .(N.B if an emulsion forms allow sufficient time for it to separate ).
* Transfer the **aqueous** layer to **a 200 ml volumetric flask** .
* Wash the solvent hexane in the separator with three ( 30 ml) portions of water , adding the washings to the same volumetric flask .
* Dilute to volume with a mixture of water : methanol ( 3:1) , and mix .
* Transfer 5 ml of this solution to a **250 ml volumetric flask** , dilute with a mixture of water : methanol (3 :1) to volume , and mix.
* Filter a portion of this solution through a filter paper , discarding the first few mls of filtrate .
* Read the absorbance of the clear filtrate at 249 nm , taking 0.715 as the value of E 1 % .

**Limit :**

The product should contain 90 – 110 % of the labeled amount of acetaminophen .

**Calculation :**