

Experiment

Assay of Ibuprofen

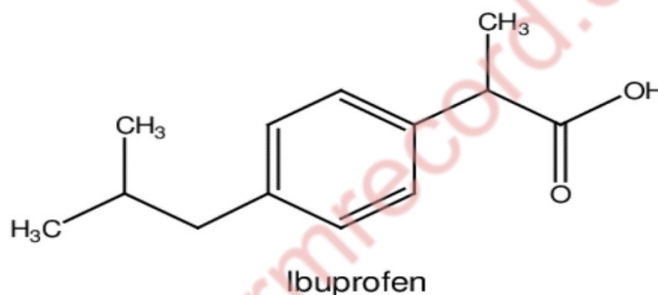
Aim;- To perform the Assay of Ibuprofen.

Reference;- Indian Pharmacopoeia, 2007, The Indian Pharmacopoeia Commission, Ghaziabad, Volume 2, page 599-600.

Requirement;-

-  **Chemicals-** Ibuprofen, Sodium hydroxide, Phenolphthalein, Ethanol, Oxalic acid
-  **Glassware-** beaker, conical flask, volumetric flask, Measuring cylinder, Glass rod, burette.

Theory;- Ibuprofen is a nonsteroidal anti-inflammatory drug (NSAID) that treats mild to moderate pain and inflammation. It can also reduce a fever. It helps treat conditions like arthritis. Common brand names include Advil, Midol, and Motrin.



Procedure;-

1. Accurately about 0.4 gm weighed out and dissolved in 100 ml of ethanol.
2. Then titrated with 0.1 M sodium hydroxide using 0.2 ml of phenolphthalein solution as indicator.
3. After that blank titration are carried out.

Factor;-

1 ml of 0.1 M sodium hydroxide is equivalent to 0.02063 g of C₁₃H₁₈O₂.

Calculation;-

% purity of Ibuprofen = volume of titrant x molarity x equivalent factor (wt of sample x 100).

Result;- The % purity of Ibuprofen was found to be