

Experiment

Assay of Dapsone

Aim:- To perform the Assay of Dapsone.

Requirement;-

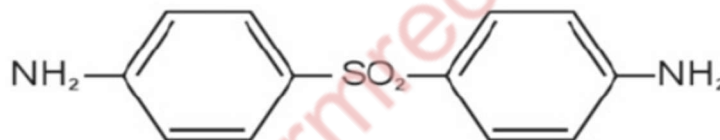
Chemicals- 2M hydrochloric acid solution, H₂O, sodium nitrate, dapsone tablet.

Glassware- conical flask, Measuring cylinder, beaker.

Equipment- digital weighing balance.

Theory;-

Dapsone is an antibiotic medication used in multidrug regimens and approved by the United States Food and Drug Administration (FDA) for treating leprosy and dermatitis herpetiformis. Initially investigated as an antibiotic agent in 1937, dapsone was first utilized for leprosy treatment in 1945. Dapsone is currently available in both oral and topical formulations.



Procedure;-

1. Weigh and powder 20 tablets
2. Weigh out the powder equivalent to 0.25 grams of dapsone
3. Dissolve the powder in 15 milliliters of 2M hydrochloric acid
4. Cool the solution to about 15°C
5. Titrate with sodium nitrite using starch iodide paper as an indicator
6. The end point is when the solution turns blue

Factor;-

Each ml of 0.1M sodium nitrite = 0.01241g of C₁₂H₁₂N₂O₂S

Calculation;-

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

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