

EXPERIMENT NO -2

OBJECT: - To determine the strength of a given unknown solution of NaOH by titrating it against with the help of a known solution of HCl using methyl orange indicator.

REFERENCE

Parle A., "Pharmaceutical Chemistry 1 Laboratory Manual", CBS Publishers and distributors Pvt. Ltd., Ed 1st, 2008, pp 55.

REQUIREMENTS: -

Chemical required: NaOH Solution, HCl solution, methyl orange indicator

Apparatus required: - burette, conical flask, and beaker.

PROCEDURE:-

Take a burette and wash it with distilled water.

Rinse and fill the solution HCl N/10 with the help of a conical funnel and set the initial burette reading as zero. Clamp it vertically to the burette stand. Rinse the pipette with water and then with the given NaOH solution.

- (a) Pipette out 10ml of given NaOH (N/10) solution into a conical flask and add one or two drops of methyl orange.
- (b) Titrate it against the HCl(N/10) solution taken in the burette till the color of the solution in the conical flask changes from a yellowish color to pink color
Note down the final burette reading.
- (c) Repeat the titration until concordant values are obtained.

OBSERVATION:

No of observation	Volume of HCl solution in mL	Burette reading		Different	Constant	Indicator used
		Initial	Final			

Calculation:

$$N_1V_1=N_2V_2$$

RESULT:- The strength of the given unknown solution oh NaOH is