



PHARMA DEVILS

QUALITY CONTROL DEPARTMENT

GENERAL TESTING PROCEDURE

Title: Hydrochloric Acid 1.0 M

SOP No.:		Department:	QC
Effective Date:		Review Date:	
Revision No.:	00	Page No.:	1 of 3
Supersede SOP No.:	Nil		

1.0 OBJECTIVE:

1.1 To lay down a procedure for the preparation and standardisation of 1.0 M Hydrochloric acid.

2.0 SCOPE:

2.1 It is applicable for the estimation of Raw material, bulk product, intermediate product and finish products.

3.0 RESPONSIBILITY:

3.1 Analyst / Officer / Executive follow the procedure.

3.2 Head-QC are responsible for effective implementation of this SOP.

4.0 REFERENCE:

4.1 BP

5.0 DEFINITION:

5.1 Molarity is the number of mole of substance that are present in the given Volume of the solution.

6.0 PROCEDURE:

6.1 Material and Equipment:

6.1.1 Volumetric flask 1000 ml, Hydrochloric acid, Trometamol, Methyl orange conical flask, record book etc.

6.2 Preparation:

6.2.1 Dilute 103.0 g of hydrochloric add R to 1000.0 mL with water.

6.3 Standardisation:

1.1.1 Dissolve 0.950 g of trometamol RV in 50 mL of water. Titrate with the hydrochloric acid solution, determining the end-point potentiometrically or using 0.1 mL of methyl orange solution as indicator until a yellowish-red colour is obtained.

1 mL of 0.1 M Hydrochloric acid is equivalent to 0.1211 g of $C_4H_{11}NO_3$.



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Calculation:

$$\text{Molarity (M)} = \frac{\text{Weight of primary std in gm} \times 1.0 \text{ M} \times \text{Potency of Primary std.}}{\text{Consume vol.} \times 0.1211\text{gm} \times 100}$$

7.0 Annexures:

1.1 Annexure-I: Molarity Calculation format of Volumetric Solution 1.0 M Hydrochloric acid.

8.0 Distribution:

1.2 Display copy 1 : Instrument Lab

9.0 Abbreviation:

GTP : General Test Procedure
QC : Quality Control laboratories

10.0 Revision History:

1.3 Revision history table:

Document Number	CC Number/Date	Brief Description of Change



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ANNEXURE-I

Molarity Calculation format of Volumetric Solution 1.0 M Hydrochloric acid

S. No.	Date	Qty. Prep.	Batch no.	Primary Std. ID. No.	Primary Std. Weight	Calculation	RSD NMT 0.2%	Mean Molarity	Date of Standardization.
1.									
2.									
3.									

Prepared By (Sign/Date):

Checked By (Sign/Date):