



# PHARMA DEVILS

## QUALITY CONTROL DEPARTMENT

### GENERAL TESTING PROCEDURE

**Title:** Hydrochloride Acid 0.1 M

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

#### 1.0 OBJECTIVE:

1.1 To lay down a procedure for the preparation and standardisation of 0.1 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 100.0 mL of 1 M hydrochloric acid to 1000.0 mL with carbon dioxide-free water.

##### 6.3 Standardisation:

1.1.1 Dissolve 0.095 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 0.01211 g of  $C_4H_{11}NO_3$ .



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#### Calculation:

$$\text{Molarity (M)} = \frac{\text{Weight of primary std in gm} \times 0.1 \text{ M} \times \text{Potency of Primary std.}}{\text{Consume vol.} \times 0.01211\text{gm} \times 100}$$

#### 7.0 Annexures:

1.1 Annexure-I: Molarity Calculation format of Volumetric Solution 0.1 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 0.1 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):