PHARMA DEVILS

QUALITY CONTROL DEPARTMENT

GENERAL TESTING PROCEDURE

Title: Zinc Sulfate 0.1 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 0.1 M Zinc Sulfate.

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, Zinc sulfate, Dilute acetic acid, conical flask, Xylenol orange, hexamethylenetetramine record book etc.

6.2 Preparation:

6.2.1 Dissolve 29 g of zinc sulfate in water and dilute to 1000.0 mL with the same solvent.

6.3 Standardisation:

6.3.1 To 20.0 mL of the zinc sulfate solution add 5 mL of dilute acetic acid and carry out the determination of zinc by complexometry.

Take 20.0 ml solution in a 500 ml conical flask, add 5.0 ml of 2.0M acetic acid and dilute to 200 ml with water. Add about 50 mg Xylenol orange and

hexamethylenetetramine until the solution becomes violet-pink. Add 2.0g of hexamethylenetetramine in excess. Titrate with 0.1M Disodium edetate until the violet pink colour changes to yellow.

1 ml of 0.1M sodium edetate is equivalent to 6.54 mg of Zn.

6.3.2 Calculation: $M_1 X V_1 = M_2 X V_2$

Where: $\mathbf{M_1}$ = Molarity of Zinc sulphate

$\mathbf{V_1}$ = Volume of Zinc sulphate

$\mathbf{M_2}$ = Molarity of Disodium edetate

$\mathbf{V_2}$ = Volume of Disodium edetate

7.0 Annexures:

7.1 Annexure-I: Molarity Calculation format of Volumetric Solution 0.1 M Zinc Sulphate.

8.0 Distribution:

8.1 Display copy 1 : Instrument Lab

9.0 Abbreviation:

GTP : General Test Procedure

QC : Quality Control laboratories

10.0 Revision History:

1.1 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 Zinc Sulfate

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):