



PHARMA DEVILS

QUALITY CONTROL DEPARTMENT

GENERAL TESTING PROCEDURE

Title: Sodium Thiosulphate 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 Sodium Thiosulphate.

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, Sodium Thiosulphate, Potassium Bromate, conical flask, record book etc.

6.2 Preparation:

6.2.1 Dissolve 25 g of sodium Thiosulphate and 0.2 gm of Sodium carbonate in carbon Dioxide-free water and dilute to 1000 ml with water.

6.3 Standardisation:

6.3.1 Dissolved 0.200 g of Potassium Bromate weight accurately in sufficient water to produced 250.0 ml. to 50 ml of this solution add 2.0 g of potassium iodide and 3 ml of 2 M of hydrochloric acid and, titrate with the sodium thiosulfate solution, using 1



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mL of starch solution, added towards the end of the titration, as indicator until the blue colour is discharged.

One ml of 0.1M sodium thiosulphate is equivalent to 0.002783 g of KBrO_3 .

Calculation:

$$\text{Molarity (M)} = \frac{\text{Weight of primary std in gm} \times 0.1\text{M} \times \text{Potency of Primary std.}}{\text{Consume vol.} \times 0.002783 \text{ gm} \times 100}$$

7.0 Annexures:

7.1 Annexure-I : Molarity Calculation format of Volumetric Solution 0.1 M Sodium Thiosulphate.

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:

10.1 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 Sodium Thiosulphate

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

Prepared By (Sign/Date):

Checked By (Sign/Date):