



**Title:** Dosing of Sodium Hypochlorite Solution in Potable Water

<b>SOP No.:</b>		<b>Revision No.:</b>	00
<b>Effective Date:</b>		<b>Supersedes No.</b>	Nil
<b>Review Date:</b>		<b>Page No.</b>	1 of 5

**1.0 OBJECTIVE:**

To lay down a procedure for Dosing of Sodium Hypochlorite Solution in Borewell Water.

**2.0 SCOPE:**

This SOP is applicable for Dosing of Sodium Hypochlorite Solution in Borewell Water.

**3.0 RESPONSIBILITY:**

Officer / Executive - Engineering

**4.0 ACCOUNTABILITY:**

Head – Engineering

**5.0 ABBREVIATIONS:**

SOP                      Standard Operating Procedure  
No.                        Number  
QA                        Quality Assurance  
RO                        Reverse Osmosis  
Ltd.                       Limited

**6.0 PROCEDURE:**

**6.1 GENERAL INSTRUCTIONS:**

**6.1.1** Ensure the Sodium Hypochlorite Material for its “**APPROVED**” Status Label.

**6.1.2** Not to use unapproved material.

**6.1.3** Always use fresh Sodium Hypochlorite Solution.

**6.1.4** Mention the Validity of prepared solution on Status Label.

**6.1.5** Wear Hand Gloves while handling the Chemicals.

**6.1.6** Use Calibrated Beakers/Cylinders for solution preparation.

**6.2 SOLUTION PREPARATION:**

**6.2.1** Calculate the quantity of Sodium hypochlorite for 1% of solution according assay value as per formula mentioned below

$$\text{Quantity of chemical used} = \frac{\text{Solution Qty} \times \% \text{ of Solution}}{\text{Chemical Assay Value}}$$

**6.2.2** Measure the Sodium Hypochlorite and transfer it into the chlorine dosing tank.



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- 6.2.3** Add 40 Liter of Raw water to make 1% NaOCl solution.
- 6.2.4** Mix up solution thoroughly in chlorine dosing tank and close the lid
- 6.2.5** Set the flow rate by rotating the knob of dosing pump at the rate of 2.88 Liter/Hour i.e. approx 1ppm.
- 6.2.6** Check chlorine ppm level by chlorine test indicator every hours/whenever required regular interval of time when plant in operation it should be maintained 1ppm.
- 6.2.7** In case chlorine ppm level is less than 1 ppm, increase the dosing accordingly to maintain the ppm level up to 1 ppm.
- 6.2.8** Record the observe chlorine content details in **Annexure-II**.
- 6.2.9** In case chlorine ppm level is more than 1 ppm, decrease the dosing accordingly to maintain the same up to 1 ppm.
- 6.2.10** If more Bacterial Count of Chlorine Treated Water is observed i.e. more than 100 cfu/ml then increase the dosing of Sodium Hypochlorite Solution and allow it to flow with the rate of 3.5 Liter/Hour.
- 6.2.11** Record the observations in “**Dosing of Sodium Hypochlorite Solution Record**” as shown in **Annexure-I**.

**6.3 Frequency for Solution Preparation:** Every Shift / 12 Hrs.

**7.0 ANNEXURES:**

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Dosing of Sodium Hypochlorite Solution Record	
Annexure-II	Observe Chlorine Content	

**8.0 DISTRIBUTION:**

- Controlled Copy No. 01                      Head Engineering
- Master Copy                                      Quality Assurance Department

**9.0 REFERENCES:**

Not Applicable

**10.0 REVISION HISTORY:**



# PHARMA DEVILS

ENGINEERING DEPARTMENT

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## CHANGE HISTORY LOG

Revision No.	Details of Changes	Reason for Change	Effective Date	Updated By



