

PHARMA DEVILS ENGINEERING DEPARTMENT

Title: Dosing of Sodium Hydroxide Solution in Ultrafiltration Treated Water			
SOP No.:	Revision No.:	00	
Effective Date:	Supersedes No.	Nil	
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1.0 OBJECTIVE:

To lay down a procedure for Dosing of Sodium Hydroxide Solution in Ultra FiltrationTreated Water.

2.0 SCOPE:

This SOP is applicable for Dosing of Sodium Hydroxide Solution in Ultra Filtration Treated Water.

3.0 RESPONSIBILITY:

Officer/Executive - Engineering

4.0 ACCOUNTABILITY:

Head-Engineering

5.0 ABBREVIATIONS:

- SOP Standard Operating Procedure
- No. Number
- Ltd. Limited
- QA Quality Assurance
- UF Ultra filtration
- kg Kilogram
- hr Hour

6.0 **PROCEDURE**:

6.1 GENERAL INSTRUCTIONS:

- 6.1.1 Ensure the Sodium Hydroxide Material for its "APPROVED" Status Label.
- 6.1.2 Not to use unapproved Material.
- 6.1.3 Always use fresh Sodium Hydroxide 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 Take 9.0 Kg of Sodium Hydroxide and transfer it into Sodium Hydroxide Solution Dosing Tank.



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- **6.2.2** Add 90 liters of RO water in to tank and mix it properly. Make up the Volume 100 Liters. Solution will be of 10% concentration.
- 6.2.3 Cover the lid of this Dosing Tank.
- **6.2.4** Set the Dosing Pump knob at the rate 3 liters/hr.
- **6.2.5** Start the dosing of Sodium Hydroxide Solution in the Ultra Filtration treated water before its Storage Tank.
- **6.2.6** Check the pH of UF.treated Water after Sodium Hydroxide Dosing and ensure that it is between 8.0 to 9.0.
- **6.2.7** In case any decrease/increase in pH of Ultra Filtration treated water, adjust the pH by increasing/decreasing dosing rate.
- 6.2.8 Record the observations in "Dosing of Sodium Hydroxide Solution Record" as shown in Annexure-I.

7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Dosing of Sodium Hydroxide Solution Record	

Head Engineering

8.0 **DISTRIBUTION:**

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

9.0 **REFERENCES:**

Not Applicable

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

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



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ANNEXURE – I



PHARMA DEVILS ENGINEERING DEPARTMENT

DOSING OF SODIUM HYDROXIDE SOLUTION RECORD

Equipment: Ultra Filtration Unit

Equipment ID No.:

Date	Qty. of NaOH Taken (9.0 Kg)	Qty. of Water Added (90 Liters)	Total solution Prepared for Dosing (Makeup 100 Liters)	Dosing Rate (NLT 3 Ltrs./Hr.)	Discard qty. (Ltrs.)	Done By Sign & Date	Checked By Sign & Date	Remarks