

Title	Preparation of Sodium Hypochlorite Solution	Page No:	Page 1 of 2
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**1. PURPOSE:**

- a. To describe the procedure for preparation of Sodium Hypochlorite Solution in the laboratory

**2. SCOPE**

- a. This SOP is applicable for areas and personnel involved in preparation of Sodium Hypochlorite Solution from 4% Sodium Hypochlorite Solution for usage in laboratory

**3. RESPONSIBILITY**

- a. Laboratory Incharge Technician and Quality Manager is responsible for the implementation of this procedure. Experienced technician will prepare and Quality manager will supervise the process

**4. PRECAUTIONS**

- a. Gloves must be worn when handling 4 % Sodium Hypochlorite solution
- b. Personal protective equipment like Hand gloves, Face Masks, protective clothing must be used while dilution
- c. Don't store in direct sun light or near high heat source
- d. Dilution needs to be done carefully without splashes as described below

**5. PROCEDURE**

- a. Every day Sodium Hypochlorite Solution should be freshly prepared according to usage/requirement of the laboratory
- b. The 4% Sodium Hypochlorite Solution is mixed with water in the proportion described below for preparation of diluted Sodium Hypochlorite Solution
- c. With the help of volumetric flask, glass beaker, and required quantity of water and Sodium Hypochlorite Solution the appropriate percentage of Sodium Hypochlorite Solution is prepared as mentioned below:
- d. 1 (one) volume of 4% Sodium Hypochlorite Solution and 3 (three) volumes of water gives 1% Sodium Hypochlorite Solution
- e. One part of 1% sodium hypochlorite solution is diluted with 9 Volumes of water gives 0.1% which is used for disinfection of work benches of lab
- f. The freshly prepared solution is issued immediately and the old solution containers are replaced with freshly prepared hypochlorite solution every 6 hours
- g. After preparations, the appropriate containers should be capped tightly and kept in dark storage space without exposure to light

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**6. USES**

- a. 1% sodium hypochlorite is used for disinfection, laboratory floor mopping, Terminal disinfection in microbiology or any disinfection process
- b. 1% Sodium Hypochlorite Solution can be used for disinfection of microbiology slides, and micro pipette tips in sharp container, and to disinfect surfaces of laboratory
- c. 1% sodium hypochlorite should be used for disinfection of blood spills and splashes, HIV, HCV infected specimens, sputum or any microbiology spill over, taking universal precautions
- d. 0.1% Sodium Hypochlorite Solution may be used for disinfection of work benches

**7. REFERENCE**

- a. As per manufacturer guidelines

**8. RECORDS**

S No	Record	Responsibility	Review Period
1	4 % Sodium Hypochlorite – Stock Register	Lab In-charge	1 Year
2	1 % Sodium Hypochlorite Preparation register	Lab In-charge	1 Year
3	0.1 % Sodium Hypochlorite Preparation Register	Lab In-charge	1 Year
4	Sodium Hypochlorite – MSDS records	Lab In-charge	1 Year

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