



PHARMA DEVILS

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Microbiology	SOP No.:
Title: Preparation of Disinfectant Solution	Effective Date:
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1.0 OBJECTIVE

1.1 To lay down the Procedure for preparation of disinfectant solution.

2.0 SCOPE

2.1 This procedure is applicable for Microbiology Laboratory and Production department.

3.0 RESPONSIBILITY

3.1 Production chemist is responsible for preparation of disinfectant solution.

3.2 Microbiologist is responsible for receiving of disinfectant solution.

4.0 ACCOUNTABILITY

4.1 Head Microbiology

5.0 EHS CONSIDERATIONS

5.1 Do not inhale the disinfectant solutions.

6.0 PROCEDURE

6.1 Disinfectant solutions are prepared in production department and filtered by 0.2 μm pore size filter.

6.2 Disinfectant solutions are issued by production department to microbiology department.

6.3 Disinfectant solutions are changed on a weekly rotational basis in order to prevent development of mutant strains of common contamination microorganisms.

6.4 Preparation of disinfectant solution:

6.4.1 70% IPA solution v/v: To make 01 liter of this disinfectant, add 700 ml of isopropyl alcohol in 300 ml of WFI.

6.4.2 1.0% Combatan solution v/v: To make 01 liter of this disinfectant, add 10 ml of Combatan in 990 ml of WFI.

6.4.3 1.0% Protasan solution v/v: To make 01 liter of this disinfectant, add 10 ml of Protasan in 990 ml of WFI.

6.4.4 2.0% Benzalkonium Chloride (BKC) v/v: To make 01 liter of this disinfectant, add 20 ml of Benzalkonium Chloride in 980 ml of WFI.



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- 6.4.5 5.0% Virosil Solution (for surface cleaning) v/v: To make 01 liter of this disinfectant, add 50 ml of Virosil in 950 ml of WFI.
- 6.4.6 20.0 % Virosil Solution (for surface cleaning) v/v: To make 01 liter of this disinfectant, add 200 ml of Virosil in 800 ml of WFI.
- 6.5 Collect the filtered disinfectant solution in sterile SS vessel from production department and use this solution for cleaning and disinfection in microbiology laboratory.
- 6.6 Schedule for the disinfectant rotation:

S.No.	Name of the disinfectant	Concentration	Usage schedule
1.	Isopropyl Alcohol	70%	Daily
2.	Combatan	1%	1 st to 7 th every month
3.	Protasan	1%	8 th to 15 th every month
4.	BKC	2%	16 th to 23 rd every month
5.	Virosil	5%	24 th to last day of every month
6.	Virosil	20%	For fumigation, whenever required

- 6.7 Quantity of disinfectant used :

S.No.	Name of the disinfectant	Microbiology lab	Sterility Area	General area	Total volume
1.	Isopropyl Alcohol	2500	3000	1500	7000
2.	Combatan	2500	3000	1500	7000
3.	Protasan	2500	3000	1500	7000
4.	BKC	2500	3000	1500	7000
5.	Virosil	2500	3000	1500	7000
6.	Virosil 20%	2500	3500	NA	6000

7.0 DEFINITIONS AND ABBREVIATIONS

- 7.1 IPA - Isopropyl Alcohol
- 7.2 BAC/BAK - Benzalkonium Chloride

8.0 REFERENCE

- 8.1 NA



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9.0 ANNEXURES

9.1 Annexure I: Disinfectant solution receiving record

10.0 DISTRIBUTION DETAILS

10.1 Controlled copy of this SOP shall be distributed to Quality Assurance, Microbiology, Production and Warehouse.

11.0 REVISION HISTORY

Supersedes SOP No.	Change Control No.	Reason for revision

