



PHARMA DEVILS

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Microbiology	SOP No.:
Title: Cleaning & Sanitization of Microbiology Lab	Effective Date:
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1.0 PURPOSE

To lay down the procedure for Cleaning and Sanitization of Microbiology laboratory.

2.0 SCOPE

It is applicable to Microbiology laboratory.

3.0 RESPONSIBILITY

Microbiologist

4.0 PROCEDURE

4.1 Precautions

- 4.1.1 Perform the area cleaning and sanitation when there is no activity.
- 4.1.2 Handle the disinfectant carefully to avoid contact with skin and eyes. Use only validated disinfectants.
- 4.1.3 Do not use expired disinfectant solutions.
- 4.1.4 Rotate the disinfectants use to avoid the development of resistance by microorganisms. For MLT & LAL test area and sterility area cleaning use freshly prepared 0.45 μ filtered disinfectants.
- 4.1.5 Wherever suitable use vacuum cleaner. Ensure the vacuum cleaners are in clean and dry condition before use.
- 4.1.6 Use separate lint free mop and fresh solution for cleaning of different area to avoid contamination of mop and solution.
- 4.1.7 Use only dedicated buckets/ containers for preparation and filtration for different disinfectants.
- 4.1.8 Rotate the disinfectant once in a week sequentially, with validated disinfectants.

4.2 Preparation of Disinfectant solution



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4.2.1 Take the required amount of disinfectant and add purified water to makeup desired final volume. (Refer Appendix-I for concentration; quantity prepared shall be according to the requirement).

4.2.2 Keep the container containing disinfectant in the pass box No.....

4.2.3 Filter the disinfectant under the LAF with the help of filtration assembly.

4.2.4 Prepare the volume of disinfectant according to the use and record the details in Annexure-V

4.3 Cleaning and Sanitization of MLT and LAL test, Media preparation and decontamination area.

4.3.1 Start cleaning in following sequence with lint free mop soaked with 70% v/v filtered Iso propyl alcohol.

4.3.1.1 Outer surface of equipments.

4.3.1.2 Cabinet and accessories.

4.3.1.3 View glass windows and doors.

4.3.2 Empty waste bins. (Replace the plastic liner daily.)

4.3.3 Mop the floor with validated disinfectant with non-fibre shedding mop. As per following sequence as mentioned below.

4.3.3.1 MLT and LAL test room.

4.3.3.2 Change room.

4.3.3.3 Change room.

4.3.3.4 Media preparation room.

4.3.3.5 Change room media predation.



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4.3.3.6 Inspect and ensure the cleanliness of the area and record in Annexure-I.

4.3.3.7 Frequency: Twice a day, beginning and at the end of working hours or whenever required.

4.3.4 The other ancillary areas likeshall be cleaned once in a day and whenever required.

4.3.5 Inspect and ensure the cleanliness of the area and record in Annexure-VIII.

4.4 Fogging of MLT, LAL test room and Change rooms

4.4.1 Switch off the air-handling unit (AHU) of MLT, LAL test room and change rooms.

4.4.2 Perform the fogging of the area with the help of fogger. Operate the fogger according SOP.

4.4.3 Record the details in Annexure-VI

4.4.4 Put 'ON' air handling unit (AHU) of MLT, LAL test room on next day.

4.4.5 Frequency: Once in a day after completion of work.

4.4.6 Note: Fogging Shall be done in the sequence.....

4.5 Cleaning and Sanitization of sterility testing area.

4.5.1 Follow the procedure from point no 4.1.1 to 4.2.2

4.5.2 Mop the floor with validated disinfectant with non-fibre shedding mop. As per following sequence as mentioned below.

4.5.2.1 Buffer room: Autoclave unloading area

4.5.2.2 Sterility testing room

4.5.2.3 Buffer room



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4.5.2.4 Garment cubicle room

4.5.2.5 Inspect and ensure the cleanliness of the area and record in Annexure-II.

4.5.2.6 Frequency: Twice in a day and whenever required.

4.6 Cleaning and Sanitization of Air lock and Buffer

Mop the floor with validated disinfectant with non-fibre shedding mop.

4.7 Fogging of Sterility testing area and Sterility cRABS

4.7.1 Switch off the air supply and exhaust system of sterility testing area and sterility cRABS.

4.7.2 Perform the fogging of the area with the help of fogger. Operate the fogger according SOP.

4.7.3 Record the details in annexure-IV

4.7.4 Put 'ON' air supply and air suction of sterility test area on next day.

4.7.5 Frequency: Once in a day after completion of work.

Note: Fogging Shall be done in the sequence.

4.8 Cleaning of Doors, Walls, Glass windows, Riser grill and Ceiling.

4.8.1 Clean the doors, walls, glass windows, riser grill and ceiling with dry non-fibre shedding mop.

4.8.2 Mop the doors, walls, glass windows, riser grill and ceiling with validated disinfectant with non-fibre shedding mop.

4.8.3 Inspect and ensure the cleanliness of the area and record in Annexure-III.



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4.8.4 Frequency: Weekly or when required.

4.9 Sanitization of drain point

4.9.1 Clean and flush the drain with water.

4.9.2 Fill the cup of drain with disinfectant or Flush the drain with disinfectant available on the day of use.

4.9.3 Cleaning shall be done at the end of working or when required.

4.9.4 Record the details of sanitization in Annexure-VII

5.0 ABBREVIATIONS AND DEFINITIONS

SOP	Standard Operating Procedure
Rev.	Revision
No.	Number
QADF	Quality Assurance Department First Floor
AHU	Air handling unit
%	Percent

Disinfectant : A substance that prevents infection by killing microbes.

6.0 REFERENCE DOCUMENTS

Operation and maintenance of fogger

7.0 ANNEXURE/ATTACHMENTS

Appendix I: Preparation of Disinfectant solution.

Appendix II: Disinfectant rotation and Usage

Annexure I: Form 1- Cleaning and sanitization record of MLT, LAL test and media preparation area.

Annexure II: Form 2- Cleaning and sanitization record of sterility test area.



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Annexure III: Form 3- Cleaning record of doors, walls, glass window, riser grill, ceiling.

Annexure IV: Form 4- Fogging record of sterility test area.

Annexure V: Form 5- Disinfectant preparation record.

Annexure VI: Form 6- Fogging record of MLT and LAL test area.

Annexure VII: Form 7- Drain point sanitization record.

Annexure VIII: Form 8- Cleaning record of Class F areas of Microbiology lab.



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Appendix - I

S.No.	Disinfectants and their preparation details
01	Cadicide
	Active ingredients : Glutaraldehyde.....2.0%w/v Preparation : Activate 2.5 litres of Cadicide solution by adding the entire contents of each activator vials, which is attached to the Cadicide solution container. (Two vial are attached for 5.0 litres of solution) Effective against : Bacteria and fungi
02	Klercide-CR "X"
	Active ingredients : Alkyl Dimethyl benzyl ammonium chloride : Polyhexamethylene Biclianide Hydrochloride Preparation : 1.0% solution. (50 ml in 5.0 litre purified water or as required quantity) Effective against : Broad spectrum
03	Klercide-CR "Y"
	Active ingredients : N, N Bis (3 aminopropyl) dodecylamine Preparation : 1.0% solution. (50 ml in 5.0 litre purified water or as required quantity) Effective against : Broad spectrum
04	Combatan DS
	Active ingredients : Polymeric Biguanide hydrochloride...12.0% : Benzalkonium chloride.....10.0% : Formaldehyde.....15.0% : Ethane Dialdehyde.....30.0% Preparation : 1.0% solution. (10 ml in a 1.0 litre purified water or as required quantity) Effective against : Bacteria and fungi



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S. No.	Disinfectants and their preparation details	
05	Virosil	
	Active ingredients	: Hydrogen peroxide.....13.0%w/v : Silver nitrate solution.....0.01%
	Preparation	: 4.0% solution. (40 ml in a 1.0 litre purified water or as required quantity)
	Effective against	: Bacteria and fungi
06	Iso Propyl alcohol	
	Active ingredients	: Absolute Iso propyl alcohol
	Preparation	: 70% solution. (700 ml in a 300 ml purified water or as required quantity)
	Effective against	: Bacteria and fungi
07	Sterillium	
	Active ingredients	: 2 – propanol : 1 – propanol : Ethyl-hexadecyl-dimethyl-ammonium-ethylsulphate
	Preparation	: As such
	Effective against	: Bacteria and fungi
08	Savalon	
	Active ingredients	: Chlorhexidine gluconate solution 1.5 % v/v : Cetrimide 3.0 % w/v
	Preparation	: 2.5% solution. (25 ml in a 1.0 litre purified water or as required quantity)
	Effective against	: Bacteria and fungi
09	Dettol	
	Active ingredients	: Chloroxylenol content.....4.8 % w/v : Terpeneol content.....9.0 % v/v : Ethyl alcohol content.....13.1 % v/v
	Preparation	: 2.5% solution. (25 ml in a 1.0 litre purified water or as required quantity)
	Effective against	: Bacteria and fungi



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10	D - 125
	Active ingredients : Aklyl Dimethyl benzyl Ammonium Chloride 2.37 % : Aklyl Dimethyl Ethylbenzyl Ammonium Chloride 2.37 % : Inert Ingredients 95.26 %
	Preparation : 1.5 % (15 ml in a 1.0 litre purified water or as required quantity)
	Effective against : Broad Spectrum.
11	Minnicare
	Active ingredients : Hydrogen Peroxide 22 %. : Per acetic acid 4.5 % : Acetic acid 9.5 % : Water.
	Preparation : 0.5 % (5 ml in a 1.0 litre purified water or as required quantity)
	Effective against : Bacteria and fungi
12	Klericide-CR (Biocide S)
	Active ingredients Troclosene sodium
	Preparation 1.7 % (17.0 gm in a 1.0 litre purified water or as required quantity)
	Effective against Broad Spectrum.
13	Gentle Hand Sanitizer
	Active ingredients 66.5% v/v Alcohol
	Preparation As such
	Effective against : Bacteria and fungi

Note: Frequency for fogging with Klericide CR Biocide S - once in a month.



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Appendix - II (Disinfectant rotation and Usage)

	Week 1	Week 2	Week 3	Week 4	Week 5
Hand disinfection	Sterillium/ Hand Sanitizer	Sterillium/ Hand Sanitizer	Sterillium/ Hand Sanitizer	Sterillium/ Hand Sanitizer	Sterillium/ Hand Sanitizer
General purpose	IPA	IPA	IPA	IPA	IPA
Glass ware cleaning	Detergent	Detergent	Detergent	Detergent	Detergent
Fogging	Virosil	Cadicide	Klericide CR -X	Klericide CR-Y	Minnicare
Cleaning/Mopping	Combatan DS	Cadicide	Savlon	Dettol	D-125

8.0 REVISION LOG

Revision Number	Effective Date	Reason for Revision