



PHARMA DEVILS

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

Title: Cleaning and Sterilization of Laboratory Ware

SOP No.:		Department:	Microbiology
		Effective Date:	
Revision No.:	00	Revision Date:	
Supersede Revision No.:	Nil	Page No.:	1 of 4

1.0 OBJECTIVE

To lay down procedure for cleaning and sterilization of laboratory ware.

2.0 SCOPE

This SOP is applicable for cleaning and sterilization of laboratory ware in microbiology laboratory.

3.0 RESPONSIBILITY

Prepared by - Executive Microbiology

Checked by - Assistant Manager Microbiology / QC

Approved by - Head QA, QC

4.0 PROCEDURE

4.1 Cleaning

- 4.1.1 First remove the entire marking /sticker's labels from the glassware's/apparatus with the help of methanol or acetone.
- 4.1.2 If the label do not peel off then keep the glassware's/apparatus in 0.1% teepol solution for soaking.
- 4.1.3 Discards the used pipettes/Petri plates into a container containing disinfectant solution and soak over night.
- 4.1.4 Discards the used pipettes/Petri plates into a container containing disinfectant solution and soak over night.
- 4.1.5 Wash all the glassware's/apparatus and pipettes thoroughly with 0.1% teepol solution then rinsed with potable water and finally with purified water.
- 4.1.6 Treat greasy glassware's with 5% sodium carbonate or soak in dilute chromic acid solution overnight.
- 4.1.7 Then scrub exterior and interior surface of glassware with 0.1% cleaning agent (1 ml Teepol in 1000 ml purified water).
- 4.1.8 Rinse the glassware properly with tap water.
- 4.1.9 Finally rinse 2 to 3 times with purified water and drain the water from glassware.
- 4.1.10 Dry the glassware's/apparatus/pipettes and Petri plates at 60°C for about one hour in drying oven.

4.2 Sterilization

4.2.1 Steam sterilization

- 4.2.2.1 Sterilise the glassware and SS items by autoclave.
- 4.2.2.2 Double wrap the all accessories with butter paper.
- 4.2.2.3 Place the material in to the autoclave for sterilization.



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4.2.2.4 The appropriate chemical indicator strip is also placed within the load.

4.2.2.5 Operate the autoclave for as per SOP.

4.2.2 Depyrogenation / Dry Heat Sterilization

4.2.1.1 All the empty glassware's/pipettes/SS items are depyrogenated in the dry heat sterilizer.

4.2.2.2 Before loading for sterilization in dry heat sterilizer cover the open ends of washed and dried glassware with metal cap wrapped in aluminum foil.

4.2.2.3 Wrap stainless steel sampling scoops in double layer aluminum foil.

4.2.2.4 Keep the pipettes/Petri plates with lid in stainless steel pipette containers/Petri plate containers.

4.2.2.5 Place the apparatus in the dry heat sterilizer.

4.2.2.6 The appropriate chemical indicator strip is also placed within the load.

4.2.2.7 Depyrogenate the glassware in Dry Heat Sterilizer at validated temperature for validated time.

4.2.2.8 Operate the dry heat sterilizer as per SOP.

4.3 Allot the Load No. to each lot of sterilized accessories as following

Load No. - XXX / ZZZ / YY / NNNN

- XXX is the short form of the accessories (ASS).
- ZZZ is the short form of moist heat sterilization (MHS) / dry heat sterilization (DHS).
- YY represent the last two digit of the current year for e.g. 07 and NNNN represent the serial no. of the first cycle of the autoclave / DHS for year 2007 for e.g. 0001.

For example:

- Load no. for the accessories sterilised in autoclave -
- Load no. for the accessories sterilised in Dry Heat Sterilizer -

4.4 Place the label of sterilized items on each item of sterilization as per Annexure - I.

4.5 Use these all accessories up to its validity periods after cleaning and /or sterilization.

4.6 Record the sterilisation details as per Annexure given in SOP. No. - ,.....

5.0 SAFETY & PRECAUTIONS

5.1 Always use cotton hand gloves for unloading of sterilized items from the dry heat sterilizer.

5.2 Always use rubber hand gloves and nose mask while handling with chromic acid.

5.3 Use the glassware/apparatus only after it has cooled to appropriate temperature.



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6.0 REVISION HISTORY

Revision No.	Reason for Revision	Superseded from & date
00	First Issue	-----

7.0 REFERENCES

SOP.

8.0 ABBREVIATIONS

SOP : Standard Operating Procedure

No. : Number

% : Percentage

°C : Degree Centigrade

NLT : Not Less Than

S.S : Stainless steel

min. : Minutes

IPA : Isopropyl alcohol

I.D. : Identification

9.0 ANNEXURES

Annexure - I : Label for sterilized item



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ANNEXURE - I LABEL FOR STERILIZED ITEM

STERILIZED ITEM

Sterilization by : DHS / Autoclave

Item: _____

Load No.: _____

Sterilization Done on: _____

Use Before date: _____ Sign: _____