



STANDARD OPERATING PROCEDURE

Department: Microbiology	SOP No.:
Title: Cleaning, Washing and Sterilization of Glasswares used in Microbiology Laboratory	Effective Date:
Supersedes: Nil	Review Date:
Issue Date:	Page No.:

1.0 Objective:

To lay down a procedure for cleaning and washing of glassware in Microbiology section.

2.0 Scope:

This Standard Operating Procedure is applicable at Quality Control department.

3.0 Responsibility

Executive/Sr.Executive-QC : Shall be responsible for Cleaning and washing of glassware in Microbiology Section.

Head-QC/Designee : Shall be responsible for the compliance of this SOP.

4.0 Abbreviations and Definitions

SOP : Standard Operating Procedure

QC : Quality Control

IPA : Isopropyl Alcohol

% : Percentage

/ : Per

ETP : Effluent

5.0 Procedure

5.1 Precautions:

5.1.1 All cleaning operations shall be carried out in washing area.

5.1.2 Potable water shall be used for washing of glass wares.

5.1.3 Rinsing shall be done with Purified water.

5.1.4 Cleaning agents may be hazardous & must be handled carefully as per the instruction given by the manufacturer.

5.1.5 Protective clothing such as Aprons, Hand gloves, and Eye shields must be worn while handling of glassware and preparing the cleaning agents.

5.1.6 If the glassware contains residue of cytotoxic materials, before cleaning detoxified the glass wares.

5.2 Pipettes and Bottles

5.2.1 Bring all used pipettes and bottles to washing area.



STANDARD OPERATING PROCEDURE

Department: Microbiology	SOP No.:
Title: Cleaning, Washing and Sterilization of Glasswares used in Microbiology Laboratory	Effective Date:
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Issue Date:	Page No.:

- 5.2.2 Wash the glassware under tap water to remove any dirt or media remaining on it.
- 5.2.3 Dip the pipette in validated disinfectant concentrated solution for 30 minutes.
- 5.2.4 Fill up the suitable container or bucket with about 5- 10 liter of 0.1% of Sodium Lauryl Sulphate solution or soap solution and keep all glassware dipped in the container.
- 5.2.5 After 1 to 2 hours remove the glassware from the container and wash thoroughly with tap water several times from inside and outside.
- 5.2.6 Take all washed glassware on the place for clean apparatus, rinse with distilled / purified water
- 5.2.7 Allow the glassware to drip and dry in DHS at $60^{\circ} \pm 5^{\circ}\text{C}$ for 1 hour as per SOP “Standard operating and Cleaning Procedure of Dry Heat Sterilizer”.

5.3 Petri Dishes and Culture Tubes

- 5.3.1 Dispose the Petri Dishes of the culture medium and growth of microorganisms as per SOP “Disposal of used Microbial Media, Cultures and Contaminated Materials” and send to the Effluent Treatment (ETP) Plant.
- 5.3.2 Dip the Culture Tube in validated disinfectant concentrated solution for 30 minutes.
- 5.3.3 Remove the Culture Tube from disinfectant /soap solution and wash thoroughly with tap water.
- 5.3.4 Brush the inner and outer surface if required with soap solution and wash under tap water. Remove all ink marking with IPA or methanol.
- 5.3.5 Take all washed glassware on the place for clean apparatus, rinse with distilled / purified water
- 5.2.1 Allow the glassware to drip and dry in lab oven at $60^{\circ} \pm 5^{\circ}\text{C}$ for 01 hour as per SOP “Standard operating and cleaning Procedure of Dry Heat Sterilizer”.
- 5.2.2 Prior to use, sterilize the articles required for aseptic work by autoclaving in steam sterilizer for validated time period at 121°C to 124°C and 15 to 18 lbs pressure.

5.3 Volumetric Flasks, Conical Flasks and Beakers



STANDARD OPERATING PROCEDURE

Department: Microbiology

SOP No.:

Title: Cleaning, Washing and Sterilization of Glasswares used in Microbiology Laboratory

Effective Date:

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Review Date:

Issue Date:

Page No.:

- 5.3.1 Decant the content of flask in the wash basin.
- 5.3.2 Remove all the markings on the glassware with IPA or methanol.
- 5.3.3 Wash thoroughly under tap water for several times.
- 5.3.4 Brush the inner and outer surface of flask and beakers with 0.1% of Sodium Lauryl Sulphate solution or soap solution and wash thoroughly under tap water.
- 5.3.6 Allow the glassware to drip and dry in lab oven at $60^{\circ} \pm 5^{\circ}\text{C}$ as per SOP "Standard operating and cleaning Procedure of Dry Heat Sterilizer".
- 5.3.5 Prior to use, sterilize the articles required for aseptic work by autoclaving in steam sterilizer for validated time period at 121°C to 124°C and 15 to 18 lbs pressure.

5.4 Depyrogenation of glass wares

- 5.4.1 For de-pyrogenation, keep the require glass wares at 250°C for 30 hrs in Dry Heat Sterilizer.

6.0 Forms and Records

Nil

7.0 References

- 7.1 Sop "Standard operating and Cleaning Procedure of Dry Heat Sterilizer".
- 7.2 Sop "Disposal of used Microbial Media, cultures and contaminated Materials".

8.0 Distribution

- 8.1 Master Copy : Documentation Cell (Quality Assurance)
- 8.2 Controlled Copy : Quality Control, Quality Assurance.

9.0 History

Date	Revision Number	Reason for Revision
	00	New SOP