



**PHARMA DEVILS**  
MICROBIOLOGY DEPARTMENT

**STANDARD OPERATING PROCEDURE**

<b>Department:</b> Microbiology	<b>SOP No.:</b>
<b>Title:</b> Disposal of used Microbial Cultures & Media	<b>Effective Date:</b>
<b>Supersedes:</b> Nil	<b>Review Date:</b>
<b>Issue Date:</b>	<b>Page No.:</b>

**1.0 Objective**

To lay down a procedure for Disposal of used Microbial Media and Cultures.

**2.0 Scope**

This Standard Operating Procedure is applicable to Microbiology Section of Quality Control.

**3.0 Responsibility**

Executive/ Officer-Microbiology : Shall be responsible for the disposal of used and contaminated Microbial Media and Cultures.

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

**4.0 Abbreviations and Definitions**

SOP : Standard Operating Procedure

QC : Quality Control

ETP : Effluent Treatment Plant

S.S. : Stainless Steel

**5.0 Procedure**

**5.1 Disposal of Used and Contaminated Cultures**

5.1.1 Remove the culture tube from the refrigerator after the requisite time period i.e. the preservation period of culture.

5.1.2 Sterilize the culture tube by autoclaving in Vertical Autoclave at 121-124 °C and 15 lbs pressure for 30 minutes.

5.1.3 After completion of sterilization cycle, remove the culture tubes from the autoclave and drain the liquefied media under continuous running water. All the cotton plugs to be kept in the bin as per SOP.

5.1.4 Dip the culture tubes in 2.5 % v/v Savlon or Dettol or any other Disinfectant solution for half an hour. Remove the tubes from disinfectant and dip in 0.1 % w/v Sodium Lauryl Sulphate solution.



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**Note:** 2.5 % Savlon / Dettol - Dissolve 2.5 ml Savlon/Dettol in 97.5 ml Purified/Distilled water. 0.1 % w/v Sodium Lauryl Sulphate solution - Dissolve 1.0 g of Sodium Lauryl Sulphate in 1000 ml Purified/Distilled water.

5.1.5 Wash hands thoroughly with soap and 2.5 % v/v Savlon / Dettol.

**Note:** The personnel handling the Microbiological Media and Cultures after incubation and sterilization shall wear protective gears i.e. Mask, Gloves and Goggles.

**5.2 Disposal of Broth Cultures and Liquid Media Tubes**

5.2.1 After completion of incubation period and examination, remove all broth cultures and tubes containing liquid media and take them for sterilization.

5.2.2 Sterilize the broth culture and liquid media tubes / flasks by autoclaving in Vertical Autoclave at 121-124 °C and 15 lbs pressure for 30 minutes.

5.2.3 After completion of sterilization cycle remove the culture tubes from the autoclave and drain the media under continuous running water.

5.2.4 All the cotton plugs and Aluminum foil shall be collected in a bin as per SOP.

5.2.5 Wash the tubes and flasks under tap water and remove all traces of broth.

5.2.6 Dip the broth cultures and liquid media tubes in 2.5 % v/v Savlon or Dettol or any other Disinfectant solution for half an hour. Remove the tubes from disinfectant and dip in a container, 0.1 % w/v Sodium Lauryl Sulphate solution.

5.2.7 Carry out washing of tubes and flasks as per procedure of Cleaning and Washing of Glassware in Microbiology Section.

5.2.8 All solid waste like cotton plugs etc. shall be sent for incineration.

5.2.9 Aluminium foil shall be sent to shredder machine before disposal.

**5.3 Disposal of Solid Media**

5.3.1 After completion of incubation and examination, remove all culture tube Slants and plates, take them for further treatment.



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- 5.3.2 Pack the Petri plates and the culture tube (slants) in the SS container or Disposable sterilizing bags and Sterilize by autoclaving in Vertical Autoclave at 121-124 °C and 15 lbs pressure for 30 minutes.
  - 5.3.3 After completion of sterilization cycle remove the culture tubes from the autoclave and drain the liquefied media under continuous running water.
  - 5.3.4 Collect cotton plugs, tissue papers in the bin as per SOP.
  - 5.3.5 Remove all labels or marking on the tubes / flasks.
  - 5.3.6 Carry out washing of tubes and flasks as per procedure of Cleaning and Washing of Glassware in Microbiology Section.
  - 5.3.7 All solid waste like cotton plugs etc. shall be sent for incineration.
  - 5.3.8 Aluminium foil shall be sent to shredder machine before disposal.
- Note:** The personnel shall wear protective gears i.e. Mask, Gloves and Goggles during handling and collecting the waste.

**6.0 Forms and Records**

6.1 Used Culture and Media Destruction Record : Annexure-1

**7.0 Reference**

- 7.1 SOP: “Cleaning and Classification of Waste bin”.
- 7.2 SOP: “Cleaning and Washing of Glassware in Microbiology Section”.

**8.0 Distribution**

- 8.1 Master Copy : Documentation Cell (Quality Assurance )
- 8.2 Controlled Copy : Quality Control, Quality Assurance, Administration and Housekeeping

**9.0 History**

Date	Revision Number	Reason for Revision