STANDARD OPERATING PROCEDURE	
Department: Microbiology	**SOP No.:**
Title: Disposal of used Microbial Cultures & Media	**Effective Date:**
Supersedes: Nil	**Review Date:**
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1.0 Objective

To lay down a procedure for the disposal of used and contaminated microbial media and cultures.

2.0 Scope

This Standard Operating Procedure is applicable to Microbiology section at Quality Control Department.

3.0 Responsibility

Microbiologist : Responsible for the disposal of used microbial media and Cultures

Head-QC/Designee : Responsible for reviewing and compliance of the SOP.

4.0 Abbreviations and Definitions

SOP : Standard Operating Procedure

QC : Quality Control

ETP : Effluent Treatment Plant

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 is over.

5.1.2 Put 5% v/v Savlon or Dettol solution or 5% phenol solution or any disinfectant solution in the culture tube and after 15 minutes sterilize the culture tubes by autoclaving at 121°C to 124°C, 15 to 18 lbs pressure for 30 minutes.

5.1.3 After completion of sterilization cycle wear hand gloves and remove the culture tubes from the autoclave and pour the hot liquefied media into a container having 5% Dettol solution. Remove labels / markings if any from the tube.

5.1.4 Wash the test tubes thoroughly in the running water and soap solution.

5.1.5 Hand over the liquefied media to ETP plant supervisor for destruction.

5.1.6 Wash hands thoroughly with soap and 5% v/v Dettol solution.

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 to the washing area.

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5.2.2 Carefully add into each tube 5% v/v Savlon or Dettol solution or 5% phenol solution or disinfectant solution from the wash bottle in appropriate quantities (approx. 5ml) depending upon the volume of broth in tubes or flasks.

5.2.3 Mix gently and allow it to stand for-3 – 4 hours or overnight.

5.2.4 Remove cotton plugs, papers etc. and collect it in a poly-bag.

5.2.5 Decant the broth in SS container; sterilize it in autoclave at 121 to 124°C, 15 to 18 lbs pressure for 30 minutes.

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

5.2.7 Prepare 2% v/v Teepol solution or soap solution in bucket or suitable container and keep all tubes, flasks dipped in the solution.

5.2.8 Carry out washing of tubes and flasks as per washing procedure of glasswares in Microbiology Lab.

5.2.9 Hand over the liquefied media to ETP plant for destruction.

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

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

5.3 **Disposal of Solid Media Cultures**

5.3.1 After completion of incubation and examination, remove all culture tubes and flasks and take them to washing area.

5.3.2 Carefully remove stoppers or cotton plugs and add 5% v/v Savlon or Dettol solution or phenol solution any disinfectant solution in sufficient quantities and replace the plugs.

5.3.3 Allow to stand for 3 hrs to 4 hours.

5.3.4 Pack the tubes and flasks in a suitable S.S. container and close.

5.3.5 Autoclave separately these containers at 121 to 124°C at 15 to 18 lbs pressure for 30 min.

5.3.6 Remove the load from autoclave and take out tubes /flasks from the S.S. container.

5.3.7 Collect cotton stoppers in poly bag.

5.3.8 Decant off the molten agar layer from tubes and flasks into SS container.

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5.3.9 Remove any labels or marking on the tubes / flasks.

5.3.10 Carry out washing of tubes and flasks as per washing procedure of glasswares in Microbiology Lab.

5.3.11 Hand over the liquefied to ETP plant for destruction.

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

5.3.13 Aluminium foil shall be sent to shedder machine before disposal.

5.4 **Disposal of Petri dish Cultures (Plates)**

5.4.1 After incubation and observations, transfer all glass / plastic plates to washing area.

5.4.2 Prepare 5% v/v Dettol or 5% Savlon solution.

5.4.3 Open the lid of plates and add 5% v/v Savlon or Dettol solution (approximately 5 ml) cover the lid and keep it for 1 to 2 hours.

5.4.4 Using spatula, remove carefully the agar layer completely and collect in a small container or vessel containing 5% v/v Dettol or any disinfectant solution.

5.4.5 Keep the Petri dish and lids immersed in 2.5% v/v Dettol or 2% v/v Teepol for minimum 3 hours and wash thereafter. Alternatively, use 2.5% v/v Savlon or any other disinfectant solution by rotation.

5.4.6 Carry out washing of Petri dishes as per washing procedure of glasswares in Microbiology Lab.

5.4.7 Sterilize the SS container-containing Agar by autoclaving at 121°C to 124°, 15 to 18 lbs pressure for 30 minutes.

5.4.8 After sterilization remove the container from autoclave and hand over the liquefied media to ETP plant for destruction.

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

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

6.0 Forms and Records

6.1 Used culture and media destruction record : Annexure-1

7.0 Distribution

7.1 Master Copy : Documentation Cell (Quality Assurance)

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7.2 Controlled Copies : Quality Control, Quality Assurance

8.0 History

Date	Revision Number	Reason for Revision
	00	New SOP