



# PHARMA DEVILS

MICROBIOLOGY DEPARTMENT

## STANDARD OPERATING PROCEDURE

**Title:** Identification of Microorganisms

<b>SOP No.:</b>		<b>Department:</b>	Microbiology
		<b>Effective Date:</b>	
<b>Revision No.:</b>	00	<b>Revision Date:</b>	
<b>Supersede Revision No.:</b>	Nil	<b>Page No.:</b>	1 of 2

### 1.0 OBJECTIVE

To lay down procedure for identification of all the microorganisms from the environment monitoring, water system monitoring and other microbiological monitoring.

### 2.0 SCOPE

This SOP is applicable for identification of all the microorganisms 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 Isolation

4.1.1 Take a loop full of culture from the selected plate and streak it onto other SCDA plates.

4.1.2 Isolation of microorganisms from the sample is done either by Pour Plate or Spread Plate or Streak Plate method on SCDA plates.

4.1.3 Incubate the plate at 30 - 35°C for 24 - 48Hrs.

4.1.4 After incubation observe the plates for colony morphology and perform different staining.

4.1.5 Note down the observations of colony characteristic in Annexure - I of SOP.

#### 4.2 Stain Procedures

##### 4.2.1 Simple Staining

4.2.1.1 Prepare a thin smear of the culture to be examined on a glass slide and fix it either by passing through a flame or by flooding the smear with methanol.

4.2.1.1 After fixation, the slide is exposed to crystal violet for one minute.

4.2.1.2 Rinse with water and allow to dry.

4.2.1.3 Place a drop of cedar wood oil and examine under oil immersion lens of the microscope.

4.2.1.4 Record the above test observations in Annexure - I of SOP.

##### 4.2.2 Gram Staining

4.2.2.1 Perform the Gram Staining as per SOP.



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4.2.2.2 Record the above test observations in Annexure - I of SOP.

### 4.2.3 Motility Test

4.2.3.1 Perform the motility test as per hanging drop procedure.

4.2.3.2 Apply the Vaseline around the depression of the hanging drop slide.

4.2.3.3 Aseptically transfer one drop of the culture to the center of a clean cover slip with the help of inoculating loop.

4.2.3.4 Invert the hanging drop slide and center its well over the drop of the culture.

4.2.3.5 Press down the edge of the cover slip so that the Vaseline makes a firm seal.

4.2.3.6 Quickly and carefully turn the slide right side up so as to suspend the hanging drop in the well.

4.2.3.7 Avoid the drop falling or touching the bottom of the well.

4.2.3.8 Examine the motility under the microscope.

4.2.3.9 Record the above test observations in Annexure - I of SOP.

### 5.0 SAFETY & PRECAUTIONS

Not applicable.

### 6.0 REVISION HISTORY

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

### 7.0 REFERENCES

SOP .

### 8.0 ABBREVIATIONS

SCDA : Soyabean Casein Digest Agar

°C : Degree Centigrade

### 9.0 ANNEXURES

Not applicable