

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

| Department: Microbiology | SOP No.: |
|----------------------------------------------------|-----------------|
| Title: Operation and Calibration of Colony Counter | Effective Date: |
| Supersedes: Nil | Review Date: |
| Issue Date: | Page No.: |

1.0 **OBJECTIVE**

1.1 To lay down the Procedure for operation and calibration of Colony Counter.

2.0 SCOPE

2.1 This procedure is applicable for Microbiology Laboratory.

3.0 **RESPONSIBILITY**

3.1 Microbiologist is responsible for operation of colony counter.

4.0 ACCOUNTABILITY

4.1 Head Microbiology

5.0 EHS CONSIDERATIONS

- 5.1 Use 70% IPA to disinfect your hands.
- 5.1.1 Do not open the lid of petriplate while counting on colony counter.

6.0 **PROCEDURE**

6.1 **Instrument Details:**

- 6.1.1 Make: Decibel Instruments
- 6.1.2 Instrument ID:

6.2 **Operation:**

- 6.2.1 Switch "ON" the mains switch of the instrument.
- 6.2.2 Digital display will show "000000", if the digital display is not showing "000000" then press the reset button, digital display will show "000000".



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| Supersedes: Nil | Review Date: | | | | |
| Issue Date: | Page No.: | | | | |



- 6.2.3 Place a Petriplate on illuminating surface.
- 6.2.4 Adjust the magnifying glass to view a clear colony present on the petriplate.
- 6.2.5 Open the lid of marker pen and gently press the tip of the pen on the colony present in the petriplate.
- 6.2.6 A beep sound will confirm the recording and digital display will displays the number.
- 6.2.7 In this way, count all the colonies present in the petriplate.
- 6.2.8 Record the total number of colonies in the respective report and remove the plate from the platform.
- 6.2.9 Press the reset button and repeat the above procedure for all the petriplates.
- 6.2.10 After completion of work, press the reset button, switch "OFF" the mains.
- 6.2.11 Make an entry in the Annexure I.

6.3 Calibration

- 6.3.1 Frequency of calibration quarterly.
- 6.3.2 Place an empty Petriplate on the illuminating surface; adjust the magnifying glass to view the clear Petriplate.
- 6.3.3 Press the tip of marker pen 5 times and then check the number displayed on screen, it should be 000005.



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| Supersedes: Nil | Review Date: | | | | | |
| Issue Date: | Page No.: | | | | | |

- 6.3.4 Press the RESET button, the digital display will show "000000" again press the marker pen 10 times on surface of Petriplate.
- 6.3.5 Repeat the same procedure by pressing the marker pen 15 times, 20 times, 25 times and 50 times and 100 times.
- 6.3.6 Calibration of colony counter is valid if the number displayed on screen is equal to the number of time of marker pen pressed.
- 6.3.7 After completion of calibration, press the reset button, switch "OFF" the mains.
- 6.3.8 Put the "CALIBRATION" tag duly filled with necessary information.
- 6.3.9 Limits/ Acceptance Criteria: Calibration of colony counter is valid if the number displayed on screen is equal to the number of time of marker pen pressed.
- 6.4 **Cleaning:** Daily
- 6.4.1 Wipe the outer surface of the instrument with 0.2µ filtered 70% IPA solution.

12.0 DEFINITIONS AND ABBREVIATIONS

12.1 IPA - Isopropyl alcohol

13.0 REFERENCE

13.1 NA

14.0 ANNEXURES

- 14.1 Annexure I: Colony counter usage record.
- 14.2 Annexure II: Colony counter calibration record

15.0 DISTRIBUTION DETAILS

15.1 Controlled copy of this SOP shall be distributed to Quality Assurance and Microbiology department.



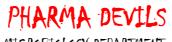
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| Issue Date: | Page No.: | | | | |

16.0 REVISION HISTORY

| Supersedes SOP No. | Change Control No. | Reason for revision |
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| Issue Date: | Page No.: |

ANNEXURE I COLONY COUNTER USAGE RECORD

| S.No. | Date | Details of Petriplate counted | Counting started time | Counting end time | Done By | Reviewed By | Remarks |
|-------|------|-------------------------------|--------------------------|----------------------|---------|-------------|---------|
| | | | | | | | |
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ANNEXURE II COLONY COUNTER CALIBRATION RECORD

| Instrument ID | : | Date of calibration | : | |
|---------------|---|------------------------------|---|--|
| Frequency | : | Next Due Date of calibration | : | |

| S.No. | Numbers selected for calibration | Number of beep sound | Display Reading | Done by | Checked by |
|-------|----------------------------------|----------------------|-----------------|---------|------------|
| 1. | 05 | | | | |
| 2. | 10 | | | | |
| 3. | 15 | | | | |
| 4. | 20 | | | | |
| 5. | 25 | | | | |
| 6. | 50 | | | | |
| 7. | 100 | | | | |

REMARKS: The above mentioned Colony Counter is calibrated / not calibrated as per specification.

Done By:

Date:

Reviewed By:

Date: