

QUALITY CONTROL DEPARTMENT

STANDARD OPERATING PROCEDURE		
Department: Quality Control SOP No.:		
Title: Operation, Cleaning and Calibration of Muffle Furnace	Effective Date:	
Supersedes: Nil	Review Date:	
Issue Date: Page No.:		

1.0 OBJECTIVE:

To lay down procedure for Operation, cleaning and calibration of Muffle Furnace

2.0 SCOPE:

This SOP is applicable for Muffle Furnace (Make : Electron, Model : EF1203)installed in Quality Control laboratory.

- 3.0 RESPONSIBILITY Execution- Executive QC Checking -Assistant Manager QC
- **4.0 ACCOUNTABILITY** Manager Quality Control
- **5.0 PROCEDURE:**
- 5.1 OPERATING PROCEDURE:
- 5.1.1 Switch 'ON' the mains.
- 5.1.2 Switch 'ON' the instrument & select the temperature
- 5.1.3 Set the required temperature by using 'UP ▲ ' & 'DOWN ▼' keys
- 5.1.4 After achieving the required temperature, keep the sample crucible inside the furnace with the help of tongs.
- 5.1.5 On completion, remove the crucible with the help of tongs and keep in desiccator.
- 5.1.6 Switch 'OFF' the mains.

5.2 CALIBRATION PROCEDURE:

Frequency: After every one year.

Note: Calibration of the instrument is to be carried out by third party.

5.3 CLEANING PROCEDURE:

Frequency: Daily

- 5.3.1 Switch "OFF" the mains & instrument.
- 5.3.2 Disconnect the instrument from mains.
- 5.3.3 Allow the Furnace to cool down at room temperature, if hot.
- 5.3.4 Loose the screw of door carefully and open the door.
- 5.3.5 Remove any solid or unlabeled waste items from the Furnace.



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- 5.3.6 Clean the inner surface of the furnace with clean and dry cotton cloth.
- 5.3.7 Clean the exterior of the instrument with a damp cotton cloth.
- 5.3.8 After cleaning, restart the Furnace and set the temperature.
- 5.3.9 Maintain the cleaning record in instrument log book as per Annexure I

6.0 SAFETY & PRECAUTIONS:

- 6.1 Wear asbestos gloves while using the furnace
- 6.2 Wear safety goggles
- 6.3 Use tongue to hold the hot crucibles while keeping inside the furnace or taking out.

7.0 REVISION HISTORY:

Revision No.	Reason for Revision	Superseded from & Date

8.0 DISTRIBUTION:

Сору	Issuance Record Copy			Withdrawal Record		Destruction Record		
No.	Date	Dept. issued	Name / Signature of receiver	Issued By Name / Signature	Ву	Sign/ Date	Ву	Sign/ Date

9.0 REFERENCES:

Calibration of instrument from out side agency

10.0 ABBREVIATIONS & ANNEXURES:

SOP : Standard Operating Procedure

QC : Quality Control

No. : Number



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MSDS: Material Safety Data Sheet.

Annexure I : Cleaning Record of Muffle Furnace



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ANNEXURE-I CLEANING RECORD OF MUFFLE FURNACE

NAME OF THE INSTRUMENT: MUFFLE FURNACE

MAKE : MODEL NO : IDENTIFICATION NO. :

Date of Cleaning	Cleaned By	Checked By	Remarks