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INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

College of Medicine



SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

Prepared by

Document Number	Name	Signature	Date
CM 001	MR. HUSAIN AL NWAISER MR. ALI AL THANI		22.4.2021
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R0	Dean: Department:		

Document History

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SOP	First Draft on SOP for the operation of Laboratory Drying Oven Model T 12	22.4.2021	

1. OBJECTIVE

- ☐ The document describes the operation of **Laboratory Drying Oven Model T 12.**
- ☐ Heating treatment of samples or materials with operating temperatures of between room temperature + 10 C° and 250C°
- ☐ Eg :For drying, ageing, analysis, fusing, burning in, oxidizing, reducing ,preheating..etc.
- ☐ Hot air sterilization by heating the article up to a temperature of at least 160 C°
- ☐ Maximum tray load lumped 15 kg – Surface 20kg
- ☐ Volume 110 litres

2. SCOPE

3. RESPONSIBILITIES

- ☐ It is the responsibility of designated personnel in Research lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- ☐ It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.
- ☐ Routine in R & D laboratories of the pharmaceutical and biotechnical industry.

4. REFERENCES

- ☐ **Laboratory Drying Ovens Model T 12** operating instructions manual

5. DEFINITIONS

- ☐ Intel air flow
- ☐ Heating cabinet (stainless steel) –
- ☐ Chamber dimensions W x H x D 469x575x386mm
- ☐ Adjacent surface\object
- ☐ Exhaust air blower
- ☐ Exhaust air flow
- ☐ Draft breaker
- ☐ Switchgear unit
- ☐ Automatic control unit (Temperature control and time switch).
- ☐ Door handle
- ☐ Over temperature protection device.
- ☐ Avoid scouring and scratching.

6. SAFETY PRECAUTIONS

- ☐ Protective gloves, goggles..etc must be available because of the high operating temperature.
- ☐ Do not use to heat or dry substances may release combustible gases or vapours that could burn or explode if mixed with air.
- ☐ Avoid contact with the opening of inner compartment because of risk of burning.
- ☐ Ensure the over temperature device works properly every 3 months.
- ☐ Be sure that the voltage rating is identical to the local voltage.
- ☐ Handle the unit carefully.
- ☐ Install the unit in dry environment (60-70% humidity).
- ☐ Condensation should be avoided (dry the unit then put into operation).
- ☐ Ambient temperature should not exceed 40 C°.
- ☐ Place the unit in firm, stable, fireproof surface.
- ☐ Adequate ventilation
- ☐ Remove any dust or dirt from the chamber

7. PROCEDURE FOR OPERATING THE LABORATORY DRYING OVEN T 12

7.1. Turning on the instrument:

- ☐ Switch on the instrument (mains switch on).
- ☐ After setup and installation .

7.2. Software Operation.

7.3. Steps of the Procedure

- ☐ Switch start up /On
- ☐ Select control unit status function.(heating).
- ☐ Setting the operating temperature (+ 10 C° to 250 C°)
- ☐ Adjust the overtemperature protection device.
- ☐ Setting the switching time (between 1 minute and 99 hours (10 hours).

7.4. Turning off the Instrument

- ☐ Remove the samples from the chamber.
- ☐ Allow the heating unit to cool down to room temperature.
- ☐ Switch the unit off and disconnect from the mains
- ☐ Clean the inside surfaces of the chamber. Water and mild detergent

7.5. Warning

Write any the warning in BOLD and RED FONT.
