



BLDEA's  
SSM College of Pharmacy and Research Centre,  
VIAJAYAPUR-586101,

Department of Pharmacognosy

1	Area:	SOP NO:
2	Prepared /Review Date:	Page No:

## STANDARD OPERATING PROCEDURE

### HOTPLATE

**Aim:** This SOP describes the use and maintenance of a HOTPLATE through proper installation, regular monitoring and maintenance.

### ***PROCEDURES***

#### ***Maintenance and Usage Recommendations***

- For basic maintenance procedures, calibration actions and trouble-shooting please refer to the instrument's instruction manual.
  - Magnetic stirrer / hot plate should be used on level surfaces.
  - If hazardous vapours will not be produced, hot plates should be in an area free of drafts to ensure heating efficiency.
  - Keep the top surface of the magnetic stirrer / hot plate clean. Use a non-abrasive cleaner to clean the surface and the outside of the unit.
  - Replace the top surface if damaged.
  - Do not use metal foil on hot plates.

- Any maintenance or repair made to the instrument must be recorded as set forth in the current version of SOP No. M52506/001, *Preparation and Use of Logbooks for Repair, Maintenance and Calibration of Equipment*. Additional information pertaining to maintenance or repair may be appended in this section of the logbook and cross-referenced to the Maintenance and Repair Log entry using a sequential hand- numbered code (e.g. REF-001) written in the upper right-hand corner of the appended sheet.
- Maintain the instrument logbook, containing this SOP, temperature control record and/or maintenance repair logs, and associated instruction manuals in the immediate vicinity of the instrument.

- **General Operation**

The following describes the general procedure for using magnetic stirrers and hot plates either as individual instruments or in combination. Please refer to instruction manuals for instrument- specific procedures.

- **Hot Plate Operation**
- Note that during initial operation of a hot plate, some odour and vapours may be produced from the heating element, which is normal.
- Place the sample vessel on the hot plate so that it is centred, where practical. For hot plates with multiple heating elements, centre the vessel over a heating element, where practical.

- Turn the instrument on and set the thermostat to the desired setting (as specified in the study plan). Refer to the instrument's instruction manual for instrument-specific procedures.
- Allow around 10 minutes for hot plate and liquid temperatures to stabilize. Where feasible, and as set forth in the Study Plan, check liquid temperature with a calibrated / certified thermometer, and record the thermostat setting and liquid temperature as set forth in the current version of SOP, *Preparation and Use of Logbooks for Repair, Maintenance and Calibration of Equipment*.
- If necessary, adjust the temperature by adjusting the thermostat.
- When heating is complete, turn the unit off.