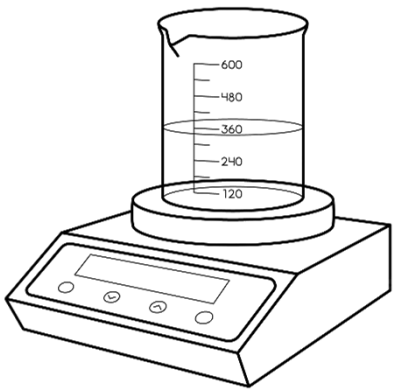
NEWSLETTER

MONDAY 08/05/2023 WWW.ITTECH.COM.MY

HOTPLATE STIRRER

A laboratory hot plate is a common equipment to safely heat samples across a plate, without using an open flame. It is essential for many types of laboratory processes that require samples to be heated in a uniform and controlled manner. The laboratory hot plate is made up of three components, the plate, the internal heating system and the control panels. Additional accessory such as temperature probe can be paired together.



Hot plates can present multiple risks in the laboratory such as burn risk and fire risk. Spontaneous heating beyond the set temperature leading to combustion has been reported in multiple occasions. This is because older equipment that was manufactured before 1984 do not have proper temperature regulation feedback control. Even though the hot plate has been set to “off”, the heater is not disconnected from the electrical source. During events of electrical glitches, the processor continued running leading to overheating, and fire if kept unattended.

Manufacturers seek to combat these issues in newer released hotplates by integrating safety features. Newer hotplates usually come with a “HOT” indicator when the plate is still hot and could cause a burn hazard. They are also made with chemical-resistant material that reduces the likelihood of processor failure which can lead to sparks and eventual fire.

WHAT CAN YOU DO?

1. REPLACE ALL HOT PLATES MANUFACTURED BEFORE 1984
2. CLEAN ALL SPILLS IMMEDIATELY AND THOROUGHLY

   Exposure to cold, corrosive chemicals and spills can increase the chance of electronic failure. Avoid storing hot plates in a cold room or in a chemical storage cabinet.
3. USE ONLY HEAT-RESISTANT GLASSWARE FOR HEATING

   Make sure to inspect that there is no crack and that the plate surface is larger than the glassware being heated.

IT TECH RESEARCH (M) SDN BHD
T: 03-5192 7742 E: sales@ittech.com.my

WHAT CAN YOU DO?

4. USE ONLY "STIR" FUNCTION WHEN HEAT IS NOT REQUIRED

Non-heat-resistant glassware can be used for stirring, not heating. Labels can be placed to differentiate the stirring and heating knobs

5. DO NOT STORE FLAMMABLE OR COMBUSTIBLE MATERIALS NEAR THE HOT PLATE

Combustible paper towels or chemical waste bin should not be placed in the vicinity of hot plate, regardless of when its "on" or "off"

6. MONITOR TEMPERATURE CLOSELY

Always monitor until the target temperature is achieved ad wait for a few minutes to stabilize.

7. ENSURE TEMPERATURE PROBE IS SECURED AND IMMERSED IN SAMPLE

Clamp the probe securely to the stand and wait until the desired temperature is achieved. Hot plate will continue heating beyond heating if desired temperature is not reached.

8. DO NOT LEAVE IT UNATTENDED

Continuously monitor hot plate in use even when the target temperature has been reached and sustained.

9. UNPLUG HOT PLATE WHEN NOT IN USE

Hot plate that is left on is the most common source of hot plate related hazards. Disconnecting from the power source is the only way to ensure that glitches do not cause spontaneous heating.

ahn®

Hot Plate Stirrer
SM-05
SM-10
SM-15

Magnetic Stirrer
SMH-01

IKA®

Magnetic Stirrer
C-MAG HS 7

CONTACT US TO LEARN MORE