

Title:	<b>Laboratory Oven and High Temperature Equipment Usage Guidelines</b>		
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## 1.0 PURPOSE

Personnel using laboratory equipment, such as drying or high-temperature ovens, must adhere to proper and safe operating procedures to minimize the risk of potentially dangerous safety incidents, such as fires in the laboratory.

## 2.0 POLICY

### Best practices for use of High Temperature Laboratory Oven

1. Avoid blocking the heat vents of an oven or any other high-temperature device. Refrain from storing anything on top of an oven or high-temperature device. It is essential to maintain a gap around these devices to allow them to vent heat safely.
2. Always ensure to check the oven temperature before using it. Previous incidents involving ovens have highlighted the importance of verifying that the oven is set to an appropriate temperature; for instance, 200°C may not be suitable for drying pipette tips boxes.
3. Avoid using paper towels inside ovens, including low-temperature ovens. If a liquid "trap" is needed, use a heat-resistant tray to capture any material.
4. Certain procedures may necessitate the use of ovens at high temperatures for extended periods, ranging from 4 hours to overnight. If an oven is to be left on for an extended duration, it is important to post a sign on the door indicating the user's name, contact information, and the material being treated.
5. Avoid storing paraffin wax in ovens. While having molten wax readily available might be convenient, the risks of the wax igniting increase if the oven is set at too high a temperature.
6. Do not use ovens to dry any chemical sample with even moderate volatility that might pose a hazard due to acute or chronic toxicity unless special precautions have been taken to ensure

continuous venting of the atmosphere inside the oven. Consequently, refrain from drying most organic compounds in a conventional unvented laboratory oven.

7. Never use a mercury thermometer in an oven. The release of mercury from a broken thermometer has the potential to pose a significant health hazard, particularly in a hot environment such as an oven.

### **Fire Prevention in Laboratory Oven-Recommendations**

- Unless specifically needed, the purchase of new high-temperature ovens should be restricted. Groups are required to consult with Research Facilities before introducing a new high-temperature oven into research laboratory areas.
- A dedicated high-temperature oven available in room 551. Make sure you use the logging sheet to book the oven. Switch off the oven as soon as your work is finished.
- Ensure the equipment is properly maintained and report any faults to your supervisor or research specialist immediately so they can be rectified.

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