**Procedure:** Use of microwave oven  
**School/Department:** School of Molecular Bioscience  
**SOP prepared by:** Gordon Stevenson and Nick Coleman  
**Version:** SMB020.2

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**Section 1 - Personal Protective Equipment**
- Safety glasses/goggles
- Laboratory coat/gown
- Heat resistant gloves
- Proper enclosed footwear
- Hair tied back if long

**Section 2 – Potential Hazards + Safety precautions**
Over heated liquids resulting in burns. Explosion from heated closed vessels. See risk assessment for microwave oven for details.

**Section 3 – Procedure**
All heating must be done under the constant supervision of the operator. The oven must not be operated unattended. **Do not heat sealed vessels in the oven** – ensure your bottle or flask has either no lid, or the lid is VERY loose. No metal objects or foils etc. to be used in oven.  
*Heating agar* - Bottles containing agar must firstly have the lids loosened. Heating can be done on "High" or at a lower setting. As soon as there are signs of melting, remove the bottle with gloves and swirl contents to ensure mixing. Continue heating and repeat as above so as to ensure gradual even melting. Use short e.g. 15 second intervals of heating to maintain control.  
*Liquids* - Liquids can be similarly handled. Swirl and mix with gentle heating to avoid superheating.

**Section 4 – Disposal / Spills / Incidents**
- Any overflows or other spills must be cleaned up immediately.  
- Serious incidents e.g. explosions must be reported as an WHS incident – in this case, notify your supervisor, and complete an online incident report  
- In the event of injury e.g. burns, immediately contact a local first aid officer, and/or an ambulance. Contact details of first aid officers are posted next to the lifts.

**Section 5 – Repairs / Certification / Validation**
- Ensure microwave is in good working order. If any sign of electrical malfunction exists, report this to the SMB service centre

**Section 6 – References**
- Also see Risk Assessment for Microwave oven.

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**SOP Consultation, Training and Approval**
Print names and enter signatures and dates to certify that the persons named in this section have been consulted/trained in relation to the development and implementation of this Standard Operating Procedure. WHS Representative (WHS Committee) certifies that consultation has taken place.

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Creation date: 25/10/2012    Next review due: 4/03/2016    Page 1 of 2
Name Authorising (Printed): DIANNE FISHER ..........................................................

Signature: ........................................................................................................Date: 3/7/14 ........................................

WHS Committee Representative Name (Printed): MARKUS HOFER ....................

Signature: ........................................................................................................Date: 22/7/14 .................................