





**HAZARD MANAGEMENT – SAFE OPERATING PROCEDURE (SOP)**

Only to be completed where required as a control measure under a Risk Assessment

<b>NAME OF THE TASK/ACTIVITY</b>	<b>MICROWAVE OVENS</b>	<b>DATE: 13/02/2020</b>
<b>LOCATION</b>	ADELAIDE MICROSCOPY WAITE FACILITY BUILDING 19 G11 (LABORATORY USE ONLY) NT CAMPUS HELEN MAYO NORTH (LABORATORY USE ONLY)	Insert photo (Optional)
<b>RISK ASSESSMENT (RA) NAME</b>		
<b>Residual risk rating on the RA</b>	<input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very High	
<b>Hazards identified on the RA</b>	Steam and dry burns Fire Explosion Contact with electricity or potential for electric shock	
<b>PERSONAL PROTECTIVE EQUIPMENT (BE SPECIFIC AND SPECIFY PPE TO BE WORN DURING THE TASK) (DELETE THE ROW IF NOT APPLICABLE)</b>		
	Eye protection: <input checked="" type="checkbox"/> Safety glasses <input type="checkbox"/> Eye shields <input type="checkbox"/> Safety goggles <input type="checkbox"/> Other:	
	Hand protection: <input type="checkbox"/> Rubber <input type="checkbox"/> Cut resistant <input type="checkbox"/> Leather <input type="checkbox"/> Vinyl <input type="checkbox"/> Neoprene <input checked="" type="checkbox"/> Nitrile <input type="checkbox"/> Barrier creams <input type="checkbox"/> Other:	
	<input checked="" type="checkbox"/> Enclosed footwear: <input type="checkbox"/> Footwear that is resistant to spills of hazardous substances <input type="checkbox"/> Boots with steel caps <input type="checkbox"/> Other:	
	Protective clothing: <input checked="" type="checkbox"/> Lab coat <input type="checkbox"/> Gown <input type="checkbox"/> Long sleeves <input type="checkbox"/> Long pants <input type="checkbox"/> High visibility <input type="checkbox"/> Helmet <input type="checkbox"/> Sun protection <input type="checkbox"/> Other:	
<b>DESCRIBE, IN SEQUENCE, STEPS TO COMPLETE THE ACTIVITY SAFELY</b>		
<b>Pre-operational checks</b>		
YOU MUST NOT USE THIS MACHINE UNTIL YOU HAVE HAD APPROPRIATE TRAINING BY TRAINED ADELAIDE MICROSCOPY STAFF. Unauthorised use may result in damage to the instrument.		
<b>Operational checks/steps to complete the activity from start to finish (including transport and waste disposal where relevant)</b>		
<b>General</b>		
Microwave ovens are designed for heating food and other substances.		
A microwave oven <u>for laboratory use only</u> is in Waite Building AFW West (Building 19) Room G11.		
Microwave ovens <u>for food only</u> are in North Terrace Helen Mayo North NG14, and Waite Building 19 Room G1.		
This SOP does not apply to the laboratory PELCO BIOWAVE 34700-230 laboratory microwave system.		
<b>Hazards:</b>		
Steam and dry burns		
Fire		
Explosion/eruption of liquids		
Contact with electricity or potential for electric shock		
<b>Risk Control Measures</b>		
<b>Engineering:</b>		
Safety interlocks are designed to prevent open-door operation, and prevent possible exposure to microwave energy.		
<b>Administration:</b>		
Users must operate the instrument in accordance with the manufacturers operating instructions.		

HSW Handbook	Hazard Management	Effective Date:	17 December 2019	Version 3.0
Authorised by	Chief Operating Officer (University Operations)	Review Date:	17 December 2022	Page 1 of 2
Warning	This process is uncontrolled when printed. The current version of this document is available on the HSW Website.			

For general use, no specific training is required as long as this SOP has been read.

Ovens used for laboratory applications cannot be used for food preparation.

Ovens used for food preparation cannot be used for laboratory applications.

Do not operate a microwave oven unattended.

Do not set microwave oven for excessive cook times.

Do not place sealed containers in the microwave oven. Lids should always be removed.

Do not use aluminum foil or any metal container, or objects with metal or foil trim in the microwave oven.

Face shield and oven mitts should be worn when taking out material from the microwave oven.

When boiling liquids, use a deep wide-mouthed container and leave it about 20 seconds at the end of boiling to avoid delayed eruptive boiling of liquids. Stir or swirl the liquid very carefully to begin with, and avoid eruption or steam burns by directing the mouth of the container away from the face and hands.

Do not tighten the container lid immediately after removal from the microwave oven.

Never heat flammable or combustible liquids in a microwave oven.

Make sure that the power supply cord is undamaged and that it does not run under the oven or against hot surfaces.

**Additional safety precautions for food-only microwave oven:**

Slowly lift the furthest edge from the face and hands, of any dish cover, microwave plastic wrap or oven cooking bags.

Food can heat unevenly in a microwave oven. Stir and sample the food before you eat it.

Only utensils designed for the purpose should be used in a microwave oven.

**On completion of work – steps to make safe (including clean up, any waste disposal & service/maintenance requirements)**

Always unplug the microwave oven when finished, and during cleaning.


**Emergency and Spill Procedures, Transport or storage requirements (where relevant), First aid/Medical**

Report any incidents to Adelaide Microscopy staff.

Keep burned skin under running cool water tap for 15 minutes. Contact a first aid officer. A serious burn may require medical care at a hospital. Seek medical attention immediately. Minor burns may be dealt with using first aid.

If materials inside the microwave chamber should ignite or begin smoking, do the following: Turn the power off. Disconnect the power cord. Do not open the door. If the door is opened, the fire could spread.

**Prepared by**

People involved in the drafting of this SOP	Gwen Mayo		
Person authorising the SOP	Name:	Angus Netting	Signature 
	Position:	Director Adelaide Microscopy	

**This SOP must be reviewed after any incident/injury associated with this activity or when a Risk assessment is reviewed.**

HSW Handbook	Hazard Management	Effective Date:	17 December 2019	Version 3.0
Authorised by	Chief Operating Officer (University Operations)	Review Date:	17 December 2022	Page 2 of 2
Warning	This process is uncontrolled when printed. The current version of this document is available on the HSW Website.			