







HAZARD MANAGEMENT – SAFE OPERATING PROCEDURE (SOP)

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

NAME OF THE TASK/ACTIVITY	CUTTING WITH THE SLOW SPEED DIAMOND SAW	DATE: 06/02/2020
LOCATION	ADELAIDE MICROSCOPY, HELEN MAYO NORTH NB12	
RISK ASSESSMENT (RA) NAME	Slow Speed Diamond Saw	
Residual risk rating on the RA	<input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very High	
Hazards identified on the RA	Sharps injury due to the use of diamond saw blade. Hazard of being caught on rotating parts. Exposure of eyes due to debris generated during cutting.	
PERSONAL PROTECTIVE EQUIPMENT (BE SPECIFIC AND SPECIFY PPE TO BE WORN DURING THE TASK) (DELETE THE ROW IF NOT APPLICABLE)		
	Eye protection: <input checked="" type="checkbox"/> Safety glasses <input type="checkbox"/> Eye shields <input type="checkbox"/> Safety goggles <input type="checkbox"/> Other:	
	Face protection: <input type="checkbox"/> Dust goggles <input type="checkbox"/> Face shield <input type="checkbox"/> Visor <input type="checkbox"/> Face mask <input type="checkbox"/> Dust mask <input type="checkbox"/> Other:	
	<input checked="" type="checkbox"/> Long hair must be contained or covered <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:	
DESCRIBE, IN SEQUENCE, STEPS TO COMPLETE THE ACTIVITY SAFELY		
<p>YOU MUST NOT USE THIS MACHINE UNTIL YOU HAVE HAD APPROPRIATE TRAINING BY TRAINED ADELAIDE MICROSCOPY STAFF</p> <p>General</p> <p>The Struers Minitom Slow Speed Diamond Saw is used to cut small samples before preparation of samples for microscopy.</p> <p>Hazards</p> <p>Potential for sharps injury due to sharp saw blade. Exposure of eyes due to debris generated during cutting can cause eye damage. Potential to be caught on rotating parts.</p> <p>Risk Control Measures</p> <p><u>Engineering Controls:</u> The saw blade guard protects the operator during operation. The guard MUST be in place at all times during operation.</p> <p><u>Procedural Controls:</u> Only trained users to operate the instrument. All new users are to be given practical training in instrument operation by a member or Adelaide Microscopy staff.</p> <p>Users must also follow guidelines in the manual and safe operating procedures for operation of the Slow Speed Diamond Saw.</p> <p>Only authorized and qualified service personnel may access the internal components of the instrument for service and repair.</p> <p><u>Personal Protective Equipment:</u> Safety glasses, enclosed shoes and lab coat must be worn at all times.</p>		

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Pre-operational checks

THE MAIN DANGER WITH THIS PROCEDURE IS THE DIAMOND SAW BLADE. CARE SHOULD BE TAKEN WHEN HANDLING THE SAW BLADE. KEEP FINGERS AWAY FROM THE SAW BLADE EDGE AT ALL TIMES. SAFETY GLASSES MUST BE WORN AT ALL TIMES TO PROTECT EYES FROM ANY DEBRIS THAT MAY BE GENERATED FROM SAMPLE CUTTING.

1. Put on your PPE. Safety glasses, lab coat and enclosed footwear are mandatory at all times. Long hair must be contained or covered.
2. Fill the water bath with tap water.
3. CHECK THAT THE SAW BLADE IS DETACHED FROM THE BLADE MOUNT. If attached remove it.
4. Lift the sample mount arm into an upright position. Attach the sample to the arm using the designated holder. Secure the holder firmly onto the RHS of the arm with the mounting screw. ALWAYS ENSURE THE SAW BLADE IS REMOVED BEFORE ATTACHING A SAMPLE.
5. On the saw blade mount remove the lock nut and attach the saw blade. Ensure a saw blade washer is present on each side of the blade. Tighten the lock nut back into place.

Operational checks/steps to complete the activity from start to finish (including transport and waste disposal where relevant)

1. Lowering the sample onto the saw blade – Slowly lower the sample mount arm until the sample is resting gently on the saw blade.
2. Adjust the position of the sample using the micrometre dial on the RHS of the sample mount arm until the location of the cut is in position over the saw blade.
3. Lift sample mount arm away from the saw blade into an upright position.
4. Place the saw blade guard in position – THE GUARD MUST BE IN PLACE BEFORE TURNING ON THE SAW AND REMAIN IN POSITION UNTIL THE SAW HAS COME TO A STOP.
5. Turn on the saw power at the power point. Turn on the power at the power button on the front of the instrument.
6. Set the saw speed to 1 rpm.
7. Start saw by pressing the start button directly below the power button.
8. Gently lower the sample onto the saw blade. Increase saw speed slowly to required speed.
9. When sample has cut all the way through the saw blade will automatically shut off.


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

10. When you have finished turn off the saw. Turn off the power.
11. Lift the sample mount arm into the upright position.
12. Remove the saw blade. Place on the bench top to air-dry. A consistently wet blade will cause corrosion.
13. Remove the sample holder mount.
14. Empty the water bath.
15. Clean up the area and leave all components in designated storage locations.

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

In the event of an injury, please advise an Adelaide Microscopy staff member and first aid officer for treatment and the local HSW representative to report the incident.

Prepared by

People involved in the drafting of this SOP	Aoife McFadden		
Person authorising the SOP	Name:	Angus Netting	Signature 

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	Position:	Director, Adelaide Microscopy	
This SOP must be reviewed after any incident/injury associated with this activity or when a Risk assessment is reviewed.			

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