

Risk Assessment Form

Procedure	Use of Vortex Mixer
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Name(s) of person performing the work	Users (Lab manager & Lab Technician & Tenants & Licensee's)		
Name & position of assessor	Khwaja Islam & Laboratory Manager	Signature	
Date of assessment	06/09/2018	RA Number	BioE 0027

Outline of procedure / activity:

The vortex mixer VV3 is located in the Innovation lab 1 (696.10.14) and is used for mixing of chemicals in microtubes.

Specification: unit is sturdy with coated, zinc die-casting, wide speed range, touch or continuous mode, shaking motion orbital, max capacity 250 ml, and weight is 4.5kg.

Operator must be trained in using the balance to guarantee safe daily use. Untrained Personnel are not be allowed to operate the heating magnetic stirrer. Users should operate the balance according to instructions in the manual. User must always ensure that power cable is in good condition, no wires exposed.

Safety Precautions:

- Keep hand/arm vibration to a minimum when operated manually.
- Keep the sample container as vertical as possible.
- Only exert the minimum pressure necessary for the mixing process.
- The feet of the appliance must be clean and undamaged.
- Position the Knob at the left stop before starting up. Gradually increase the speed.
- If the shaking movement of the appliance increases (resonance), reduce the speed or pass through the critical phase as quickly as possible.
- Reduce the speed if:
 - the medium splashes out of the vessel because the speed is too high.
 - the appliance is not running smoothly.
 - the appliance begins to move around because of dynamic forces.
- Beware of the risk of flammable materials and glass breakage as a result of mechanical shaking power.
- Do not operate the appliance in explosive atmospheres, with hazardous substances or under water.
- The appliance starts up again automatically following a cut in the power supply.
- Always clean the vortex after use.

Potential hazards

Substance or item handled	Associated Hazard (s)	Existing Control Measures	Risk (L/M/H)	Further Action required	Risk (L/M/H)
Use of Vortex	Electrical hazard - Electrical shock – danger of death.	Only switch on the device if the device and power cable are undamaged. Only trained personal are allowed to use the vortex. Vortex is earthed, protective earth connection for the machine is provided using 13A plug fitted to the machine (RCD protected). Make sure it has been PAT tested. Regular visual checks of power cords for fault, fraying or wear and regular electrical safety check. Any faults reported and repaired before use.	L	No further action required if the existing control measures are adhere to.	L
Use of biohazard materials	Biohazard materials – breakage	Must wear appropriate PPE according to COSHH assessments. Follow GLP. Spillage to be clean up immediately! Ensure the cap or lid is on tight before vortexing. Use and appropriate vessel for the sample. Examine tubes for cracks, imperfections, and scratches prior to using in instrument.	L	No further action required if the existing control measures are adhere to.	L

Persons potentially at risk:

Only the user or others near by

Action in event of an accident or emergency:

1. **Fire:** raise the fire alarm and evacuate the area.
2. Spill kit available for large spillage.

Arrangements for monitoring effectiveness of control:

Daily inspection of equipment by lab technician.

Instruction and training given to all operators which is reviewed annually.

Existing operators receive annual refresher training.

Annual pat testing by external contractor.

**Arrangements for monitoring effectiveness of control:
Review of the Risk Assessment:**

Date of review		Name of reviewer	
Date of next review		Signature	

Have the control measures been effective in controlling the risk?

Yes	No
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Have there been any changes in the procedure or in the information available which affect the estimated level of risk from the listed substances

Yes	No
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What changes to the control measures are required?

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Declaration by Tenants/Licensees/Technicians:

I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated. Where PPE has been identified as a control measure, I will ensure that it is worn.

Declaration by Laboratory Manager (LM):

I confirm that the tenant/licensee/technician who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (Please print)	Signature	LM Countersignature	Date



Name (Please print)	Signature	LM Countersignature	Date