

Risk Assessment Form

Procedure	Use of Laboratory Lab washers for glassware and Laboratory Utensils
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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	15/08/2018	RA Number	BioE 0001

Outline of procedure / activity:

The laboratory dishwashers (Miele, PG8583 CD) are used to clean dirty glassware and laboratory utensils for the tenants on ground and first floor of the BioEscalator of the Innovation Building. The laboratory dishwashers are used every day for the cleaning of laboratory glassware and is situated in the services room (696.10.23) on the ground floor.

The process includes cleaning, rinsing and where required disinfection and drying.

Laboratory glassware and laboratory utensils suitable for reprocessing include a range of items from evaporating dishes to centrifuge tubes, for example:

- Vessels such as test tubes, beakers, flasks, cylinders, etc.
- Measuring vessels such a measuring cylinders, pipettes, volumetric flasks, etc.
- Small items such as lids, spatulas, magnetic stirring rods, stoppers, etc.
- Other items such as funnels, pipe/hose pieces, etc.

The dishwasher is programmed to carry out the final rinse with reverse osmosis water i.e. purified water. The dishwasher can be equipped with mobile units, baskets, modules and inserts which can be fitted with different inserts and modules or exchanged for special accessories depending on the items to be washed.

Operator must be trained in operating and loading/unloading the lab washer to guarantee safe daily use. Untrained Personnel are not be allowed to operate the dishwasher. Users should operate lab washer according to instructions in the manual. User must always ensure that power cable is in good condition, no wires exposed.

Safety instructions:

- Be careful when sorting items with sharp pointed ends and positioning them in the dishwasher that you do not hurt yourself or create a danger for others.
- Broken glass can result in serious injury when loading or unloading. Broken glass items must not be processed in the dishwasher. They must be disposed in sharps bin.
- When using in the higher temperature ranges, be especially careful not to scold or burn yourself.

- Mobile units, baskets, modules, inserts and the load must be allowed to cool down before they are unloaded. Any water remaining in containers could still be very hot. Empty them into the wash cabinet before taking them out.
- Make sure items being washed are suitable for dishwasher and are in good condition. Plastic items must be thermally stable.
- Mobile units, baskets, modules, inserts should only be used for the purpose they are designed for.
- Do not sit or lean on the open door as the injury or machine damage could result.
- Before use, staff to be trained in safe operation of the dishwasher.
- Heavy trays of glassware to be lifted in accordance with guidelines on MHO.
- Laboratory coat and gloves and heat resistance gloves and safety glasses to be worn when using the dishwasher.

Electronic door locking:

The dishwasher is equipped with a comfort door lock. When the door is closed, the comfort door lock automatically pulls the door into the correct position and ensures that it is correctly sealed. The door is then electronically locked.

Operating Procedure:

1. Press the **door release** button to open the door (before or after a programme). Grasp the handle underneath the control panel and lower the door to open it.
2. Load the dishwasher with dirty laboratory glassware and utensils.
3. Close the dishwasher door. When closing the door ensure that there are no objects or items in the load obstructing the door. Do not put your hand inside the door as it is closing. Danger of injury.
4. Press the **start/stop** button to start the dishwasher. Select programme 2.
5. Once the programme has finished. Press the **door release** button to open the door (the electronically locked door can only open when the temperature in the wash cabinet is less than 70°C).
6. The comfort door lock opens the door slightly. The LED goes out as soon as the door is unlocked. (The control panel of the dishwasher is also a door handle).

Filling the salt reservoir:

Use only special coarse-grained reactivation salt with a granule size of approx. 1-4 mm.

1. Open the door to an angle of approx. 45°C. This ensures that the salt flows into the reservoir more easily.
2. Press the yellow button on the salt reservoir with the salt symbol on it in the direction of the arrow. The flap will spring open.
3. Lift up the funnel.
4. Add salt only until the funnel of the salt reservoir is full, so that it can close properly. Do not add more than 2 Kg of salt.
5. Clean any access salt from the area around the salt reservoir and especially from the seal. Do not use running water as this can cause the salt reservoir to overflow.
6. Close the funnel.
7. Run the Rinsing programme after refilling salt. This will ensure that any traces of salt and saline solution are dissolved and rinsed away. This will ensure that any access that any traces of salt and saline solution are dissolved and rinsed away.

Note: The reservoir takes approx. 1.4 - 2 kg of salt, depending on the type of salt and how much is left in. Do not fill the reservoir with water as the reservoir could overflow when filled with salt.

Potential hazards

Substance or item handled	Associated Hazard (s)	Existing Control Measures	Risk (L/M/H)	Further Action required	Risk (L/M/H)
Thermoton Cleaner	Corrosive	Refer to BioE COSHH number 001	M	No further action required if the existing control measures are adhere to.	M
Thermoton Clear	Flammable Irritant	Refer to BioE COSHH number 002	M	No further action required if the existing control measures are adhere to.	M
Glassware	Cuts from broken glass	Lab gloves and lab coat and safety glasses worn when loading/unloading. Be aware of any possible breakages that could occur. Take all due care when emptying contents, disposing of any broken or cracked glassware in sharps	L	No further action required if the existing control measures are adhere to.	L

		bin. Ensure all staff rinse glassware with 1% Virkon and water before being placed in wash-up trolley.			
Contact with hot surfaces	Burn / Scalds from contact with hot surfaces/glass ware Cracks or breaks to glassware due to high temperatures of wash cycle may occur.	Allow dishwasher to cool down before attempting to open door or unload contents. Heat resistance gloves worn when unloading. Take care when unloading the unit.	M	No further action required if the existing control measures are adhere to.	M
Lifting and removing Dishwasher Trays	Personal injury from lifting dishwasher trays for glassware	Staff trained in manual handling operations.	L	No further action required if the existing control measures are adhere to.	L

Lab washers	Electric shock	<p>Only switch on the device if the device and power cable are undamaged. The lethal voltages inside of the device is not accessible which is contained in housing that is closed and undamaged. Do not remove the housing of the device. Only trained personal are allowed to use the machine. Lab washer is earthed, protective earth connection for the machine is provided using 13A plug fitted to the machine. Annual pat testing. Regular visual checks of power cords for fault, fraying or wear and regular electrical safety check.</p> <p>Any faults reported and repaired before use.</p>	M	No further action required if the existing control measures are adhered to.	M
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Persons potentially at risk:

Only the user or others near by

Action in event of an accident or emergency:**1. First Aid Measure:**

Burns – immersing the burn in cool water immediately, removing clothing from the burn area, and keeping the injured area cool for at least five minutes (preferably longer). Any burns to the face or eye or any burns that blister should be seen by a physician.

- 2. Fire:** raise the fire alarm and evacuate the area. Use correct fire extinguisher if you have been trained and it is safe to do so.

Arrangements for monitoring effectiveness of control:

Daily inspection of equipment by lab technician.

Annual preventative maintenance contract by external contractor (Miele).

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

Existing operators receive annual refresher training.

Dishwashers are inspected for broken glass before and after use on a daily basis.

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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