

Risk Assessment Form

Procedure	Use of Microscope (Inverted)
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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	01/10/2018	RA Number	BioE 0020

Outline of procedure / activity:

Inverted microscope (model Motic AE2000) is located in TC lab (696.10.26) is ideal instrument for living cells observation and other microbiological samples. The location of microscope is free from dust, moisture, chemical vapours and from mechanical vibrations. Proper handling of the microscope will ensure years of trouble free equipment.

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

Specification:

Biotech set with attachable stage, well plate holder (128x86mm), petri dish holder (54mm), slide holder (26x76 mm) and 4x, Ph 10x, LWD Ph 20x, and LWD Ph 40x, objectives (magnification). Digital set with full HD moticam 1080 BMH, 0,5x C-mount adaptor. LED set with 6 V/3 W module.

Working Environment:

- Location should be free of dust, moisture, chemical vapours and from mechanical vibrations.
- Don't locate the instrument in bright or direct ambient light, in front of a lamp, or a will-lit bright wall.
- Best image will be achieved without significant ambient light.

Installing the bulb:

- Refer to manual page 10-15

Auto/OFF/On switch function:

- If "auto" is selected, the light will automatically turn off after 15 minutes when no user in front of the unit (see manual pg. 22). When the user returns, the illumination will start again.
- The sensor should not be put under sunshine or UV.
- When "auto" is selected the blue pilot lamp indicates that an IR-sensor is activated.

- Never attempt to switch directly between “on” and auto.
- The buffer “off” is necessary between auto power off mode and normal mode.

Care and Maintenance:

- To clean lens surfaces or filters, first remove dust using an air blower. If dust still persists, use a soft / clean brush or gauze.
- A soft gauze or lens tissue lightly moistened with mixture of alcohol should only be used to remove grease or finger prints.
- Do not use same area of gauze or lens tissue to wipe more than once.
- When not in use, cover the instrument with vinyl dust cover provided.

Safety precautions:

- DO NOT locate instrument in bright or direct ambient light, in front of a lamp, or a well-lit bright wall.
- In order to prevent electric fluctuation to the instrument electrics, always turn the power switch on the instrument off before connecting the power cord.
- Never attempt either of the following actions, since doing so will damage the focusing mechanism:
Rotate the left or right knob while holding the other.
Turning the coarse and fine focus knobs further than their limit.

Potential hazards

Substance or item handled	Associated Hazard (s)	Existing Control Measures	Risk (L/M/H)	Further Action required	Risk (L/M/H)
Fixed glass slides	Biohazard from samples	COSHH assessment provided by users. Fixed glass slides are used. Gloves and lab coat worn.	L	No further action required if the existing control measures are adhered to.	L
Glass slides and cover slips	Possibility of cuts from broken microscope slides and covers slides.	Carry and store slides/cover slips in an appropriate container. Dispose of any broken glass immediately into a clinical sharps bin provided picking up the pieces with forceps. Gloves, safety glasses and lab coat worn.	L	No further action required if the existing control measures are adhere to.	L
Use of Microscope	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 machine. Incubator 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	L	No further action required if the existing control measures are adhere to.	L



		check. Any faults reported and repaired before use.			
Ergonomics	Poor Posture and awkward positioning - musculoskeletal disorders (MSDs). Prolong use of the microscope and DSE without breaks - Eye strain and associated headaches.	Adjustment of the chair, DSE and microscope oculars by each user. Maintain an upright posture at all times when working on the PC when working on the microscope and PC. Take regular breaks from the microscope and DSE. Refer to Lab ergonomics (OHS Memo M3/07).	L	No further action required if the existing control measures are adhered 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.

Arrangements for monitoring effectiveness of control:

Daily inspection of equipment by lab technician.

Annual preventative maintenance carried by external contractor.

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/Licensee/Technician:

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