MANCHESTER 1824

The University of Manchester

Manchester Institute of Biotechnology - Risk Assessment

Date: 5/4/11	**Assessed by**: Catherine Winder	**Validated by**: Tanya Aspinall	**Location**: MIB, 2.041 / 2, 2.047	**Review date:** 5/4/13

Activity	**Hazard**	**Person(s) in danger**	**Existing measures to control risk**	**Risk rating**	**Result**
Handling of Biological samples	Biological Hazard- risk of infection	Staff and other workers nearby	Personal Protective Equipment (Lab Coat safety glasses and disposable gloves) must be worn. All projects are risk-assessed and approved by local safety committee, (refer to individual biological material risk assessments). All accidents/spillages are logged and recorded by the Biological Safety Officer. Samples should be autoclaved before disposal at the end of the experiment.	Low	A

Activity	Hazard	Person(s) in danger	Existing measures to control risk	Risk rating	Result
Pipetting of Samples (refer to individual risk assessment for further details)	**Pipetting and dispensing of solutions** - chemical / biological hazard	Staff	All staff trained by their supervisor or senior lab personnel in the safe method of pipetting and dispensing of solutions. A COSHH assessment (including information on what to do in case of accident and disposal) is carried out for all chemicals / biological agents must be read and signed before the work begins. Lab coats and gloves must be worn. All pipettes should be checked annually to ensure they are fully functional and correctly calibrated.	low	A
Centifugation of Cells (refer to individual risk assessment for further details)	**Use of centrifuge** • Manual handling of heavy rotors causing injury when lifted • Opening of rotors before they have stopped running • Failure at speed • Biological hazard due to breakage of tubes	Staff and service engineers; damage to back if heavy/bulky items are incorrectly handled/dropped Staff Staff Staff	All staff trained in manual handling techniques as part of the centrifuge training course. Database of trained centrifuge-users to record all staff who have received training. Trolley used to transport heavy rotors Ensure guards are in place and rotors have stopped before opening Regular inspection and cleaning of rotors Follow measures outlined in biological hazard, spillages should be cleaned and rotors cleaned using Virkon solution / 70% ethanol	low	A

Activity	Hazard	Person(s) in danger	Existing measures to control risk	Risk rating	Result
Use of Fume Cupboards (refer to individual assessment)	Hazardous chemicals • risk of inhalation due to inadequate flow rate	Staff and others in the lab	Staff trained by supervisor in safe use of fume cupboards. Checked to ensure they are in working order (visual air flow indicator strips, flow meter) and the sash moves freely and stays in position. If spillage occurs, ensure that it is contained within the fume cupboard and does not flow over the front lip – CARE – liquid may spill out onto your lower body. All fume cupboards are left in a clean and safe condition after use.	low	A

Activity	Hazard	Person(s) in danger	Existing measures to control risk	Risk rating	Result
Use of solvents (for further details refer to COSHH assessments for individual solvents)	• Risk of poisoning through inhalation / skin contact	User and other lab personnel	All users trained by their supervisor in the correct handling and use of solvents. They should have completed COSHH and risk assessments so that they are aware of the hazards associated with the material and procedure Appropriate PPE should be worn (lab coat, gloves, safety glasses, mask as appropriate) and access to a spillage kit, gloves, inorganic absorbent, emergency shower, etc. should be available in case of spillage. All work should be performed in a well ventilated lab, and work with highly volatile solvents should be done in a fume cupboard. The correct procedure for the disposal of the solvents should be performed Users should ensure empty containers are safe before disposal. Rinse out bottles in a fume cupboard to remove flammable vapours. Solvents should not be mixed with oxidising agents either in use or in storage. All solvents should be transported in carriers designed for the job. No solvents will be issued from stores unless users have the correct containers. The user should be aware of the location of all fire extinguishers in the laboratory and be trained in their use	low	A

Activity	Hazard	Person(s) in danger	Existing measures to control risk	Risk rating	Result
Handling of liquid nitrogen - Release of liquid nitrogen (refer to individual assessment)	Risk of asphyxiation / burns (note, only small volumes of liquid nitrogen will be used in this procedure)	Staff and those in close proximity	All staff should be trained in the correct handling and transport of liquid nitrogen. They should have completed COSHH and risk assessments so that they are aware of the hazards associated with the handling of liquid nitrogen. Appropriate protective clothing should be used in addition to lab coat and goggles, protective gloves (blue) preferably with cuffs should be used. Samples should only be placed / removed from the liquid nitrogen with a metal ladle or long handled tongs.	low	A

Declaration

I confirm that I have read this Risk Assessment and understand the implications described.

Name (please print)	signed	date
