

Risk Assessment: Manual Counting of Cells

Scope

Manual cell counting is carried out routinely in order to establish the density of cells to be used in the follow up experimental procedure, this is carried out with Trypan Blue dye, which will render dead cells blue, the slides used are plastic as sharps are not allowed in CL3.

The risk identified with this technique is the location of the procedure (see CL3 risk assessment and Code of Practice), the chemicals used (Trypan blue) and the waste stream from the biological waste produced which requires treatment with Virkon.

This replaces VI-RA-002

Name of assessor:	Tiphaine Bouriez-Jones	Date of Assessment:	May 2015	Review Date:	Every 3 years
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Risk Matrix:

Risk Matrix		Likelihood			
		High	Medium	Low	Negligible
Consequence	Severe	High	High	Medium	Effectively Zero
	Moderate	High	Medium	Medium/low	Effectively Zero
	Insignificant	Medium/Low	Low	Low	Effectively Zero
	Negligible	Effectively Zero	Effectively Zero	Effectively Zero	Effectively Zero

Risk Assessment:

Hazard (Cause and consequence)	Affected Groups	Existing controls	Risk	Further Action
Exposure to Trypan Blue Health hazard: H350 May cause cancer	Staff, students and visitors	Chemical stock are available in solution only. Via skin adsorption: User must wear gloves and labcoat at all time. Only plastic slides will be used to reduce the risk of cut. Via instillation (eye): User must wear safety spectacles at all time. See specific COSHH risk assessment.	Medium	None
Exposure to Virkon powder or Virkon solution	Staff, students and visitors	Via inhalation: stock of powdered Virkon kept away from draft, with its lid in place. Via skin adsorption: User must wear gloves and labcoat at all time. Via instillation (eye): User must wear safety spectacles at all time. See specific COSHH risk assessment.	Medium	None
Infection from exposure to pathogens - Via direct contact with the pathogen (i.e. skin adsorption from splash) - Via spill of material - Via incorrect disposal of waste	Staff, students and visitors	Only trained users who have shown evidence of their experience to the CL3 Safety Officer will have access to the CL3 suite out of hours. Each user is trained to adhere to the CL3 Code of Practice, they will follow the precautions involved with handling and storing pathogens. Every user must double glove, wear a leak-resistant disposable gown and wear safety spectacles whilst working in the suites. The use of sharps is forbidden in the CL3 suites.	Medium	Bi-yearly checks on the BSC

		<p>Out of hours workers must at least have a buddy system in place or work in pairs.</p> <p>Users are familiar with emergency procedures and a spill drill is implemented as a check on measures.</p> <p>A telephone available in each CL3 suite, with up-to-date list of emergency contact details next to it.</p> <p>Waste is autoclaved within the suite, samples will be packaged in tertiary container is they need to be taken outside of the CL3 suite.</p> <p>No engineer is allowed to work out of hours in the CL3 suite.</p>		
Being trapped in the CL3 suite out of hours (door release mechanism no longer functioning)	Staff Students	Emergency release of the door mechanism present on each door.	Low	Yearly maintenance service contract

Signed By Author:

Approved by (sign and print):

Reviewed by:

Review date: