

Science Practical Risk Assessment

School of Maths & Science	Practical Activity Title	pGLO Transformation (MAS_SP_0012_pGLO)				Risk Assessment No. MAS_RA_0012_pGLO
Location	Biology Lab. NB124					
Assessment Performed By	Phil Jones	Signature:		Date:	20 Feb 2008	
Supported By	Gareth John	Signature:		Date:	20 Feb 2008	
Approved By	Brian Harris (H.o.S.)	Signature:		Date:	20 Feb 2008	
Date of Re-assessment (if necessary)	Re-assess if any changes to procedure or equipment / chemicals are made.					

HAZARDS TO BE CONSIDERED	WHO MIGHT BE HARMED?	IS THE RISK ADEQUATELY CONTROLLED?	WHAT FURTHER ACTION IS NECESSARY TO CONTROL THE RISK?
1. Slipping / Tripping	Staff		
2. Fire	Students		
3. Chemicals / drugs			
4. Moving parts of machinery			
5. Pressure systems		<i>Please complete overleaf</i>	<i>Please complete overleaf</i>
6. Electricity			
7. Dust			
8. Fumes			
9. Manual Handling			
10. Noise			
11. Lighting			
12. Computers			
13. Any other hazards			

(Please refer to Risk Assessment Matrix to indicate how Severity and Likelihood combine to produce a Risk score)
Likelihood x Severity = Risk Score, = Low, Medium or High risk

Type & Source Of Hazard	Nature Of The Risk	Type Of Activity In Which Risks May Arise	Control Measures	Risk Rating			L M H	Any Further Control Measures Required
				L	S	R		
Bags & coats	Trip Hazard	Any activity which involves movement around the laboratory	Place all bags & coats etc in lockers provided	1	1	1	L	
E. coli K12 HB101	Environmental contamination.	Students inoculate cultures with bacteria.	HB101 is a safe strain used for many years in education which cannot survive outside lab conditions. Benches are wiped down with dilute bleach sol'n following the prac. In case of contact with skin wash with soap and water.	1	1	1	L	
p GLO plasmid	Environmental contamination.	Transferring plasmid to bacteria solution.	The plasmid presents no hazard. The transformed bacteria will be disposed of by autoclaving to ensure no GMO release occurs. In case of contact with skin wash with soap and water.	1	1	1	L	
LB solution	Skin irritation.	Transferring LB solution to bacteria solution.	LB is not a hazard; it is a sterile growth medium for bacteria. In case of contact with skin wash with soap and water.	1	1	1	L	

Type & Source Of Hazard	Nature Of The Risk	Type Of Activity In Which Risks May Arise	Control Measures	Risk Rating			L M H	Any Further Control Measures Required
				L	S	R		
Water Baths	Electrical hazard	General use of water baths	Use only proprietary water baths designed for laboratory and school / college use. Baths are regularly PAT tested for electrical safety	1	1	1	L	
Water Baths	Scalds	Inserting and removing samples from water baths.	Water baths are set to 42 ⁰ C. this temperature is not sufficient to cause scalding or burning so is not a hazard	1	1	1	L	
UV Lamp	Eye injury	Illuminating transformed bacteria.	Students use a hand held UV lamp to examine their results. The long wave UV lamp has a built in acrylic shield so eye protection is not required.	1	1	1	L	
Calcium chloride solution	Skin irritation.	Transferring CaCl ₂ solution to micro test tube.	This solution is not hazardous, in case of contact with skin wash with soap and water.	1	1	1	L	

INDICATE WHAT FIRST AID ARRANGEMENTS ARE IN PLACE

A science technician (qualified first aid at work) shall be present during all science practical lessons.
First aid kit available in all science prep rooms (Physics NB232, Chemistry NB237B & Biology NB124A).

Assessment performed by : (Please Print Name)	Phil Jones	Position :	Biology / Human Biology Lecturer
Date of Assessment :	20 February 2008		
Signed :			

ACTION LIST RECOMMENDATIONS	Risk Rating			L M H	TO BE ACTIONED BY	DATE ACTION COMPLETED	SIGNATURE
	L	S	R				