NEATH PORT TALBOT COLLEGE
COLEG CASTELL NEDD PORT TALBOT
NPTC

Science Practical Risk Assessment

School of Maths & Science	**Practical Activity Title**	**D.N.A. Electrophoresis** (MAS_SP_0011_dna_electrophoresis)		**Risk Assessment No.** MAS_RA_0011_dna_electrophoresis	
Location	**Biology Labs. NB124 / 125**				
Assessment Performed By	**Phil Jones**	Signature:		Date:	**25 Jan 2008**
Supported By	**Gareth John**	Signature:		Date:	**25 Jan 2008**
Approved By	**Brian Harris (H.o.S.)**	Signature:		Date:	**25 Jan 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		***Please complete overleaf***	***Please complete overleaf***
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 or in designated area in room.	1	1	1	L	
Restriction enzyme mix	Allergic reaction.	Incubation of D.N.A. samples with restriction enzyme.	Avoid contact with restriction enzyme solution. In case of contact wash skin with soap & water.	1	1	1	L	
Suspect & crime scene D.N.A.	Infection from certain types of viral DNA or from contaminants.	Handling DNA solutions.	These plasmid samples present no hazard and do not contain any human or pathogenic D.N.A.	1	1	1	L	
TAE Buffer solution.	Allergic reaction / irritation.	Handling & pouring buffer solutions.	Tris Acetic Acid EDTA solution is a non toxic running buffer for agarose gels. In case of contact wash skin with soap & water.	1	1	1	L	
Micropipettes.	Cuts	General use of micropipettes.	Care to be taken when using micropipettes as tips can be quite sharp.	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		
Electrophoresis chamber.	Electrical hazard.	Running gel electrophoresis at 100volts.	The liquid in the tank and the electrodes are inaccessible to students during the run to avoid electric shock, professional equipment with suitable safety features are used.	1	2	1	L	
Fast Blast D.N.A. stain.	Allergic reaction / irritation.	Staining of agarose gels.	Fast blast stain is not hazardous or harmful to health. Gloves should be worn to avoid staining of the skin. In case of contact wash skin with soap & water.	1	1	1	L	
Water Baths	Electrical hazard	Incubating D.N.A. restriction digests.	Use only proprietary water baths designed for laboratory and school / college use. Baths are regularly PAT tested for electrical safety	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 :	**25–January-2008**		
Signed :			

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