

Science Practical Risk Assessment

School of Maths & Science	Practical Activity Title	Preparation of Ethanal (MAS_SP_2508_ethanal_preparation)		Risk Assessment No. MAS_RA_2508_ethanal_preparation	
Location	Chemistry Labs. NB236 / 237			Revision level: 1	
Assessment Performed By	Samantha Oxley	Signature:		Date:	25 Sep 2009
Supported By	Gareth John	Signature:		Date:	25 Sep 2009
Approved By	Kelly Gay (H.o.S.)	Signature:		Date:	25 Sep 2009
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 and coats	Trip Hazard	Any activity which involves movement around the laboratory	Place all bags and coats etc in lockers provided	1	1	1	1	
Stools	Trip Hazard	Any activity which involves movement around the laboratory	All stools to be stacked and placed at the back / sides of the lab to ensure no obstructions	1	1	1	L	
Ethanal	Harmful	Product made during chemical reaction	Small quantities produced, product is collected in a sealed tube as it is produced. Wearing of safety goggles and lab coat is mandatory. Any splashes to the skin should be washed off immediately.	1	1	1	L	
Ethanoic acid	Corrosive	Product formed in test tube during reaction	Ethanoic acid may only be formed if too much sodium dichromate is used. Therefore small quantities of oxidising agent will be supplied. Very small quantities of product are also formed	1	1	1	L	
Methylated spirit	Harmful through inhalation or ingestion.	Measuring, pouring and mixing	Keep off skin and avoid inhalation. Use suitable gloves and ensure that lab is well ventilated. Wearing of safety goggles and lab coat is mandatory. Any splashes to the skin should be washed off immediately.	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		
Sodium Dichromate	Oxidising, Toxic	Measuring, mixing and dissolving	Considered most dangerous in solid form, however dichromate will be fully mixed and dissolved in water before adding alcohol to it. Wearing of safety goggles and lab coat is mandatory. Any splashes to the skin should be washed off immediately.	2	2	4	L	
Concentrated Sulfuric Acid	Corrosive	Measuring and mixing	Acid will be in a diluted form (conc less than 1.5mol ^{dm} -3) so risk reduced. Wearing of safety goggles and lab coat is mandatory. Any splashes to the skin should be washed off immediately.	2	2	4	L	
Hot Apparatus	Burns	Heating samples to 60 °C with Bunsen burners.	All long hair should be tied back, use gloves when handling hot apparatus and allow equipment to cool before putting away.	2	2	4	L	
Glass wear	Cuts	Handling	Ensure good technique is used, Take care when handling glassware to avoid any breakages.	1	2	2	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)	Samantha Oxley	Position :	Chemistry Lecturer
Date of Assessment :	25th September 2009		
Signed :			

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