



This form is to be used in conjunction with the Environment Health and Safety Manual Procedure 3.2 Hazard Identification, Assessment and Control - Application.

Information of Activity

Activity: Use of hotplates, heating mantles, stirrers Location: Chemistry

Identified by: G. Papadopoulos Date: 31/1/06

Identified Hazard / Aspect: Exposure to electrically heated surfaces

Risk Analysis matrix – level of risk

Identified Hazards	Risk Assessment			Risk Score E x L x C	Risk Level
	Exposure (E)	Likelihood (L)	Consequence (C)		
Hot burns	3	0.3	2	1.8	L
Electric shock from cable touching hot surface melting insulation, making the appliance live.	3	0.1	10	3	M
Explosion/fire caused by sparks, overheating wiring, in presence of flammable liquids	3	0.1	10	3	M

Definitions							
Exposure	E	Likelihood	L	Consequence	C	Risk Score	Hierarchy of Risk Controls
Continuously	10	Almost Certain	1.0	Catastrophic	20	E >20 H >10 M 3-10	Elimination is a permanent solution and should be attempted in the first instance. Substitution involves replacing the hazard or environmental aspect by one of lower risk. Engineering controls involve physical barriers or structural changes to the environment or process. Administrative controls reduce hazard by altering procedures and providing instructions. Personal protective equipment last resort or temporary control.
Frequently	6	Likely	0.6	Major	10		
Occasionally	3	Possible	0.3	Moderate	5		
Infrequently	2	Unlikely	0.1	Minor	2	L < 3	
Rarely	1	Rare	0.05	Insignificant	1		

LEGEND

E: extreme/significant risk; immediate action required; must be managed by senior management with a detailed plan, notify RMO immediately.

H: high risk, senior management attention needed, detailed research and management planning at senior levels

M: moderate risk, management responsibility must be specified; manage by specific monitoring or response procedures

L: low risk, manage by routine procedures; unlikely to need specific allocation of resources

Details of Risk Controls to be Taken

Risk Controls: (These should be determined by both the person(s) identifying the risk and the responsible manager and HSR or Environmental Representative). When determining risk controls refer to Hierarchy of Risk Control. Some examples are operating manuals, safe work procedures, licenses, permits to work, training and instruction etc

All electrical equipment should be visually inspected regularly to ensure integrity of electrical cable. Any equipment that is sparking/smoking or has damaged cables should be tagged out. Testing of equipment to be done at least annually by a suitably qualified person.

Equipment set up so that cabling stays away from hot surfaces.

Reactions involving hazardous substances or dangerous goods to be done in a fume hood.

Heat insulating gloves to be worn when handling equipment.



THE UNIVERSITY OF
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RISK ASSESSMENT 3D Model

EHS Manual

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Person assessing the risk: G. Papadopoulos Date: 31/1/06

Authorised by: G. Papadopoulos Planned completion date: _____

Risk Control Measures Completed

Actions by: G. Papadopoulos Completed (Initials & date): 31/1/06