



# RISK ASSESSMENT 3D Model EHS Manual

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: Using bunsen burners (flame drying glass, sealing tubes) Location: Chemistry

Identified by: G. Papadopoulos Date: 15/5/07

Identified Hazard / Aspect: Burns, fire, explosion

## Risk Analysis matrix – level of risk

Identified Hazards	Risk Assessment			Risk Score	Risk Level
	Exposure (E)	Likelihood (L)	Consequence (C)	E x L x C	
Burns	2	0.3	5	3	M
Fire/explosion	2	0.3	10	6	M

Definitions							
Exposure	E	Likelihood	L	Consequence	C	Risk Score	Hierarchy of Risk Controls
Continuously	10	Almost Certain	1.0	Catastrophic	20	<b>E</b> >20 <b>H</b> >10 <b>M</b> 3-10	<b>Elimination</b> is a permanent solution and should be attempted in the first instance. <b>Substitution</b> involves replacing the hazard or environmental aspect by one of lower risk. <b>Engineering</b> controls involve physical barriers or structural changes to the environment or process. <b>Administrative</b> controls reduce hazard by altering procedures and providing instructions. <b>Personal protective equipment</b> 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	<b>L</b> < 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

Use bunsen burners on cement sheets. Do not use around flammable liquids or gases. Visually inspect tubing for integrity and potential leaks prior to each use.

Always light the bunsen burner with minimum air supply so the flame is orange and visible. Keep body parts clear of flame. Do not leave bunsen burner on unnecessarily or unattended. Use tongs to manipulate items in the flame. Keep thermal gloves on hand to handle hot glass. Using a bunsen burner in a fume hood rather than on the open bench should be considered.

Person assessing the risk: G. Papadopoulos Date: 15/5/07

Authorised by: G. Papadopoulos Planned completion date: 15/5/07

## Risk Control Measures Completed

Actions by: G. Papadopoulos Completed (Initials & date): 15/5/07