

**DEPARTMENT OF PROCESS AND FOOD ENGINEERING  
FACULTY OF ENGINEERING, UNIVERSITI PUTRA MALAYSIA**

**COSHH ASSESSMENT**

This assessment must be completed jointly by the research Advisor/Supervisor (or any other competent Assessor) and the research worker. For help in the completion of this form, please see department's Science Officer.

<b>Name of research Advisor/Supervisor:</b>	<b>Date:</b>
<b>Name of research Worker:</b>	<b>Tel number:</b>
<b>Laboratory (research activity location):</b>	<b>Email:</b>

**Hazardous substance. Please provide the material safety datasheet (MSDS) of substance.**

Name	Workplace exposure limit (WEL, from EH40, 8h & 15min)	Physical form (eg, powder, dust, granular, liquid, solution, gas)	Quantity	Hazards (Xi, C, Xn, T, T+, F, F+, O, E, N)	Carcinogen, mutagen, teratogen or sensitiser?
1.					

**Brief description of process / activity that require the substance**

Identified hazardous substance	Risk of injury/exposure and its severity	Specific Control Measures		
		Administrative controls (eg, training, supervision, signage, etc)	PPE	Physical/engineering controls (eg, total enclosure, fume cupboards etc)
1.				

Methods of Correct Storage and Handling:				
Substance	Methods Storage and Handling			
1.				
Who is at risk?				
Identified hazards	Emergency plan			
	Fire	Spill	Failure of local exhaust ventilation (fume cupboard, extract hood, etc)	Uncontrolled release
1.				
Special waste disposal requirement?				
Substance	Disposal Requirements			
<p><b>Signature of the Research Worker:</b>  Name:  Date:</p> <p><b>Signature of the Supervisor's Research Worker:</b>  Name/Stamp:  Date:</p> <p><b>Signature of the Head of Laboratory / Development Coordinator:</b>  Name/Stamp:  Date:</p>				

**Chemical risk assessment (COSHH) notes**

<ul style="list-style-type: none"> <li>• <i>'Name'</i> – Give the name of the material as supplied.</li> <li>• <i>'Workplace exposure limit'</i> – The COSHH regulations require users to consider any existing published workplace exposure limits (WEL) for airborne exposure. These are available in the document EH40 'Workplace exposure limits', published by the HSE and free to download on <a href="http://www.hse.gov.uk/pubns/books/eh40.htm">http://www.hse.gov.uk/pubns/books/eh40.htm</a> Not all materials will be listed on here. The absence of a WEL does not mean the substance is 'safe' and has no limits, this just means there is no data available.</li> <li>• <i>'Quantity'</i> – This may be quoted in any sensible units for your process. Generally, milligrams, grams, kilogrammes, millilitres or litres will be understood by anyone who needs the COSHH information.</li> <li>• <i>'Hazardous properties'</i> – CHIP symbols indicate the substances are hazardous. The symbols are Xi (irritant), C (corrosive), Xn (harmful), T (toxic), T+ (very toxic), F (flammable), F+ (extremely flammable), O (oxidiser), N (harmful to the environment) and E (explosive). See table below for symbols.</li> <li>• <i>'Carcinogens'</i> – Any material with the risk phrases <b>R45/R40</b> or hazard phrases <b>H350/H351</b></li> <li>• <i>'Mutagen'</i> – Any material with the risk phrases <b>R46/R68</b> or hazard phrases <b>H340/H341</b></li> <li>• <i>'Teratogen'</i> – Any material with the risk phrases <b>R61/R63</b> or hazard phrases <b>H360/H361</b></li> <li>• <i>'Reproductive toxin'</i> – Any material with the risk phrases <b>R60/R62</b> or hazard phrases <b>H360/H361</b></li> <li>• <i>'Sensitiser'</i> – Any material with the risk phrases <b>R42/R43</b> or hazard phrases <b>H334/H317</b></li> <li>• <i>'Physical or engineering controls'</i> – enclosures, barriers, extract systems, glove boxes, fume cupboards etc which physically prevent or reduce exposure.</li> <li>• <i>'Administrative controls'</i> – strategies such as signage, training, etc.</li> <li>• <i>'Personal Protective Equipment, PPE'</i> – equipment to protect the individual. This must be suitable for the task and conform to relevant British Standards. Training must be given to ensure that the PPE is fitted, used and maintained properly.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>'Hierarchy of control'</i> – The hierarchy of control is a sequence of options which offer you a number of ways to approach the control of hazards. Work your way down the list, and implement the best measure possible for your situation. Notice that the use of protective equipment is the last resort, to be used when all other control measures have been ruled out in the short term. The hierarchy is:       <ol style="list-style-type: none"> <li>(i) eliminate the hazard</li> <li>(ii) substitute the hazard with a lesser risk</li> <li>(iii) isolate the hazard</li> <li>(iv) use engineering controls</li> <li>(v) use administrative controls</li> <li>(vi) use personal protective equipment</li> </ol> </li> <li>• <i>'Maintenance'</i> – Maintenance operations on equipment may increase the likelihood of exposure to hazardous substances. This must be considered in the assessment</li> <li>• <i>'Disposal procedures'</i> – Users of hazardous materials must ensure they are disposed of safely in accordance with relevant law and University policy <a href="http://www.osh.upm.edu.my/">http://www.osh.upm.edu.my/</a>. <b>Please refer to the Department's OSH Employer's Representative or Assistant Engineer of the Laboratory.</b></li> <li>• <i>'Emergency arrangements'</i> – The assessment shall consider not only the routine use of hazardous materials, but also any special arrangements in the event of a fire, spillage, uncontrolled release (vapour, gas) and failure of any critical control system such as fume cupboards.</li> <li>• <i>'Health surveillance'</i> – Periodic screening of a defined user group for a specific disease or for biological marker for a disease.</li> </ul>
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