IMPORTANT: This form consists of 3 sections including Risk Assessment, COSHH Assessment & Declaration Safety Form. Please complete all sections and leave blank if not applicable.

DEPARTMENT OF PROCESS AND FOOD ENGINEERING
FACULTY OF ENGINEERING

RISK ASSESSMENT

This Risk Assessment Form must be completed by a lab user and checked by a competent assessor/supervisor for any procedure of work carried out by an undergraduate, postgraduate, postdoctoral or visitor before an attempt is made at the procedure of work.

1. Name of Experiment: ***Different experiment require different Risk Assessment Form***
2. Describe the work being assessed:
3. Known expected hazards associated with the activity:
4. The risk of injury and its severity to arise from these hazards:
5. Who is at risk?
6. Measures to be taken to reduce the level of risk:
7. Training prerequisites:
8. Level of risk remaining:
9. Emergency action:
10. References if any:

Prepared by:

_____
Name :
Matric No.:

Checked by:

_____
(sign, stamp & date)
Applicant's Supervisor

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.

Name of research Advisor/Supervisor: **Date:**

Name of research Worker: **Tel number:**

Laboratory (research activity location): **Email:**

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**

Signature of the Research Worker:
Name:
Date:

Signature of the Supervisor's Research Worker:
Name/Stamp:
Date:

Chemical risk assessment (COSHH) notes

- *'Name'* – Give the name of the material as supplied.
- *'Workplace exposure limit*' – 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 http://www.hse.gov.uk/pubns/books/eh40.htm 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.
- *'Quantity'* – 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.
- '*Hazardous properties*' – 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.
- '*Carcinogens'* – Any material with the risk phrases **R45/R40** or hazard phrases **H350/H351**
- '*Mutagen'* – Any material with the risk phrases **R46/R68** or hazard phrases **H340/H341**
- *'Teratogen'*- Any material with the risk phrases **R61/R63** or hazard phrases **H360/H361**
- *'Reproductive toxin'* – Any material with the risk phrases **R60/R62** or hazard phrases **H360/H361**
- *'Sensitiser'* – Any material with the risk phrases **R42/R43** or hazard phrases **H334/H317**
- '*Physical or engineering controls'* – enclosures , barriers, extract systems, glove boxes, fume cupboards etc which physically prevent or reduce exposure.
- '*Administrative controls'* – strategies such as signage, training, etc.
- '*Personal Protective Equipment, PPE'* – 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.
- '*Hierarchy of control'* – 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:
  (i) eliminate the hazard
  (ii) substitute the hazard with a lesser risk
  (iii) isolate the hazard
  (iv) use engineering controls
  (v) use administrative controls
  (vi) use personal protective equipment
- '*Maintenance*' – Maintenance operations on equipment may increase the likelihood of exposure to hazardous substances. This must be considered in the assessment
- '*Disposal procedures'* – Users of hazardous materials must ensure they are disposed of safely in accordance with relevant law and University policy **http://www.osh.upm.edu.my/. or Please refer to the Department's OSH Employer's Representative or Assistant Engineer of the Laboratory.**
- '*Emergency arrangements'* – 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.
- '*Health surveillance'*–Periodic screening of a defined user group for a specific disease or for biological marker for a disease.

DEPARTMENT OF PROCESS AND FOOD ENGINEERING
FACULTY OF ENGINEERING
DECLARATION SAFETY FORM

A Designation

1.	Postgraduate	Ph.D	☐	Master	☐
2.	Undergraduate	Laboratory	☐	Mini Project/FYP	☐
3.	Researcher/Post Doctoral/Research Staffs	Laboratory	☐	Research Project	☐
4.	Science Officer/University Staffs/Others	Laboratory	☐	Research Project	☐
5.	Laboratory Name	_____			

B Declaration

1. I have read and understood The Department's Laboratory Safety Handbook & Laboratory Safety Notes ☐
2. I have completed the Risk Assessment and COSHH (if needed) forms of my research ☐
3. I have received basic training in the use of these equipment: ☐

List of Testing Equipment	List of other Equipment

Notes: 1. The training is required before the personnel begin the laboratory work

2. The training includes:

a. Safety equipments/requirements
b. Equipment Operation/Best practices
c. Emergency Procedures, Equipment, First Aid Kits
d. Waste Disposal (if related)

4. **"I hereby declare that I will be responsible for all incidents. The Department of Process and Food Engineering shall not deem liable for any accidents occur due to safety negligence."** ☐

5. Work area/Work station : _____ Period of Work:from _____ to _____
6. Prepared by: User's Name : _____
   Matrix No. / ID. No.: _____
   H/P No.: _____
   Email Address: _____ Sign & Date:_____
7. Checked by: *(sign, stamp & date)*
   Supervisor: _____ (sign, stamp and date)

8. Approved by:

   Head of Laboratory / Dept. Coordinator of Development: _____ (sign, stamp and date)

DEPARTMENT OF PROCESS AND FOOD ENGINEERING
LABORATORY SAFETY NOTES

After reading this document, please sign and return the Laboratory Safety Form to the department's Science Officer. A copy of the laboratory safety manual may be obtained from the Laboratory or through Department's website http://www.eng.upm.edu.my.

GENERAL INSTRUCTION :

1. YOU ARE RESPONSIBLE NOT ONLY FOR YOUR OWN SAFETY BUT ALSO FOR THE SAFETY OF OTHERS.
2. AS POSTGRADUATES YOU WILL BE EXPECTED TO SHOW A GREATER UNDERSTANDING FOR AND ADHERENCE TO, ALL NATIONAL AND LOCAL SAFETY RULES AND REGULATIONS.

Please comply with the following:-

1. LABORATORY TIMES : 8.00am–5.00pm. WORKING IN A LABORATORY ALONE OUT OF OFFICE HOURS IS NOT PERMITTED.
2. ALTHOUGH YOU MAY BE ADMITTED INTO A LABORATORY YOU ARE NOT ALLOWED TO COMMENCE WORK UNLESS AUTHORISED TO DO SO BY A SUPERVISOR/ASSISTANT ENGINEER.
3. YOU MUST WEAR PROPER PERSONAL PROTECTION EQUIPMENTS (PPEs) THAT NEEDED AND SUITABLE WITH YOU LAB WORKS.
4. TAKE NOTE OF THE SAFETY EQUIPMENTS AVAILABLE, ITS LOCATION AND METHOD OF USE, I.E. FIRE EXTINGUISHERS, EYEWASH BOTTLES, AND FIRST AID KITS.
5. FAMILIARISE YOURSELF WITH THE LAYOUT OF THE BUILDING AND ITS FIRE ESCAPES.
6. DO NOT EAT, DRINK OR SMOKE IN THE LABORATORY.
7. IN THE EVENT OF AN ACCIDENT, IT IS ESSENTIAL THAT ANY INJURY BE REPORTED TO A ASSISTANT ENGINEER AS SOON AS POSSIBLE. A REPORT OF THE ACCIDENT WILL THEN BE FORWARDED TO THE DEPARTMENTAL SAFETY REPRESENTATIVE.
8. REPORT ALL ACCIDENT/SPILLAGES TO A SUPERVISOR/ ASSISTANT ENGINEER
9. DO NOT DISPOSE OF UNKNOWN CHEMICALS DOWN THE LABORATORY SINK. REFER SUPERVISOR/ ASSISTANT ENGINEER FOR ADVICE.

ALWAYS REMEMBER

DO NOT USE ANY EQUIPMENT, UNLESS YOU ARE ABSOLUTELY CERTAIN OF ITS CORRECT METHOD OF OPERATION & DO NOT HESITATE OR FEEL EMBARRASSED ABOUT ASKING FOR HELP.