APPENDIX G CHEMICAL HAZARD RISK ASSESSMENT FORM

Completing this document will help you to identify the risks associated with your research

Title of Experiment or Procedure:

Initial & Additional Review Date(s):

Brief Description of Experiment or Procedure (include reaction conditions (i.e. temperature, pressure) if applicable):

Known risks associated with the procedure (briefly describe hazard, probability (high medium low), consequence of occurrence)

Substances to be used (List ALL substances, including solvents, expected products and by-products):

Substances Used	Approx. quantity	Physical form i.e. powder, vapour, volatile liquid, gas, etc	Hazards i.e. flammable, corrosive, irritant, readily absorbed through skin, etc.	Exposure route(s) e.g. skin, eyes

Risk implications:

Is there any substance used or formed that might give rise to a fire or explosion (e.g. flammable gases/liquids)? **If yes,** how can you ensure that no explosion occurs?	Y/N
Is it reasonably foreseeable that the lower explosive limit will be reached in the event of a leak or spillage? **If yes,** a more detailed risk assessment is required – contact ehs**.**	Y/N
Is there likelihood of copious amounts of gas being released or thermal runaway? If experiment will be run continuously unattended, describe fail safe mechanisms/redundant systems used.	Y/N
Are any carcinogens, acutely toxic substances or chemicals requiring prior approval by EHS used?	Y/N
Can any of the substances be substituted by a less hazardous substance?	Y/N
What could happen if there was a catastrophic failure of the apparatus?	
In the event of an accident, who might be exposed?	

Control measures to be used:

Containment	Personal Protective Equipment
☐ Chemical fume hood ☐ Glove box ☐ Other local exhaust ventilation ☐ Blast guard/shield ☐ Other (specify)	☐ Lab coat (type): ☐ Chemical apron ☐ Gloves (type): ☐ Eye protection (type): ☐ Respiratory protective equipment * (type): ☐ Other (specify): *Note: Contact EHS before wearing a respirator

Are any additional controls required? (Consider nearby sources of ignition, formation of explosive atmospheres/mixtures or residues, asphyxiation in confined spaces).

Equipment to be used:

Major Laboratory Equipment Used	Potential Hazards (i.e. electric shock, temperature extremes, pressure, chemical exposure)

Equipment controls required?

Disposal measures to be used during and after the procedures:

Emergency procedures (emphasize any special hazards):

- *Shut down Procedures*
- *Action in the event of Fire (type of extinguisher):*
- *Action in the event of spillage or uncontrolled release:*
- *Emergency treatment for personnel in the event of contamination, exposure to vapors or other adverse effects:*

Name of assessor:

Signature: **Date:**