

GENERAL INFORMATION	
Student's Name:	Email: Phone Number:
Date Authorised:	Document ID:
PROCESS, EQUIPMENT, AREA	
Process Name:	
Equipment Used:	
Location/Laboratory:	
Reference documents:	
Condition of Use: Yellow Room <ol style="list-style-type: none"> 1. Equipment conditions: 2. Wear appropriate PPE: 3. Hazardous substance management: 	
Competency Requirements: <ul style="list-style-type: none"> <input type="checkbox"/> INOR Lab Safety Training <input type="checkbox"/> Refer to the chemical SDS for reference 	

STANDARD OPERATING PROCEDURE	
1.	Process Purpose:
2.	Emergency Measures:
3.	Safety Information: i. Skin exposure ii. Eye exposure iii. Ingestion iv. Inhalation of vapours v. First Aid
4.	Required Consumables:
5.	Required Equipment:
6.	Preparation:
7.	Process Description:
8.	Finishing Procedure:
9.	Process Control:
10.	Storage:
11.	By-product Generated:
12.	By-product Disposal Method:

IDENTIFY HAZARDS			
<input type="checkbox"/> Biological material	<input type="checkbox"/> High pressure gases/fluids	<input type="checkbox"/> Noise	<input type="checkbox"/> Temperature-Heat
<input type="checkbox"/> Chemicals	<input type="checkbox"/> Implosion	<input type="checkbox"/> Powered vehicle	<input type="checkbox"/> Temperature-Cold
<input type="checkbox"/> Electrical	<input type="checkbox"/> Magnetic fields (strong)	<input type="checkbox"/> Radiation	<input type="checkbox"/> Vibration
<input type="checkbox"/> Environmental	<input type="checkbox"/> Manual handling/ Ergonomic	<input type="checkbox"/> Sharps/sharp edges	<input type="checkbox"/> Fire/Explosion
<input type="checkbox"/> Gravity	<input type="checkbox"/> Moving parts (crush entanglement)	<input type="checkbox"/> Slips, trips and falls	<input type="checkbox"/> Other
<input type="checkbox"/> Hazardous material	<input type="checkbox"/> Nanomaterial	<input type="checkbox"/> stored kinetic energy	

CONTROL THE RISKS								
No.	Hazardous Substance(s)/Task	Hazards	Harmful Scenarios	Existing Controls	Risk Rating (With Control)			Is This Reasonably Practicable Y/N?
					Severity	Likelihood	Risk Rating	
1.	Chemical name:	Chemicals: Hazardous materials/ Explosive: Risk of explosion with: Risk of ignition:	Inhalation: Ingestion: Skin contact: Eye contact: Chronic exposure: Aggravation of pre-existing conditions:					
	Incompatible chemicals mixing:							
2.	Chemical name:	Chemicals: Hazardous materials/ Explosive: Risk of explosion with: Risk of ignition:	Inhalation: Ingestion: Skin contact: Eye contact: Chronic exposure: Aggravation of pre-existing conditions:					

Standard Operating Procedure and Risk Assessment

	Incompatible chemicals mixing:							
3.	Chemical name:	Chemicals: Hazardous materials/ Explosive: Risk of explosion with: Risk of ignition:	Inhalation: Ingestion: Skin contact: Eye contact: Chronic exposure: Aggravation of pre-existing conditions:					
	Incompatible chemicals mixing:	Explosion						
	Chemicals Spill and transport from storage cabinet	Chemicals						
	Autoclave/ oven	Heat						
	High pressure gas	Heat, chemicals						

APPROVAL			
Student's Name:		Supervisor's Name:	
Signature:	Date:	Signature:	Date:
INOR Lab Safety Officer: NUR NAJWA ALYANI BINTI MOHD NABIL		INOR Lab Coordinator: MOHD ANAS BIN AHMAD	
Signature:	Date:	Signature:	Date:

APPENDIX: RISK RATING METHODOLOGY AND MATRIX

Risk Assessment Methodology

The risk level is determined by evaluating:

- Likelihood (L): Probability of the hazard occurring.
- Severity (S): Impact if the hazard occurs.
- Risk Rating(RR) = Likelihood × Severity

Risk Rating Matrix

Severity ↓ Likelihood →	1 - Rare	2 - Unlikely	3 - Possible	4 - Likely	5 - Almost Certain
5 - Catastrophic	Medium	High	Very High	Very High	Very High
4 - Major	Medium	High	High	Very High	Very High
3 - Moderate	Low	Medium	High	High	Very High
2 - Minor	Low	Low	Medium	Medium	High
1 - Negligible	Low	Low	Low	Low	Medium

Risk Level and Action Plan

Risk Level	Description	Action Required
Low	Acceptable risk	Routine controls sufficient.
Medium	Requires review	Improve controls where practical.
High	Significant risk	Must implement risk controls and increase supervision.
Very High	Unacceptable risk	Stop work immediately; implement strict controls before resuming.

Severity Rating (S)

Rating	Description
1	Negligible (no injury, no damage)
2	Minor (first aid case, minor damage)
3	Moderate (medical treatment needed)
4	Major (severe injury, lab shutdown)
5	Catastrophic (death, permanent loss)

Likelihood Rating (L)

Rating	Description
1	Rare (once in >5 years)
2	Unlikely (once every 2–5 years)
3	Possible (annually)
4	Likely (monthly or every few months)
5	Almost Certain (weekly or more frequent)