

Laboratory Glassware Risk Assessment

Business Name:	ABN:	
Business Address:		
Contact Person:	Phone:	Email:

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THE PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX

LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change
								PPE

Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:

Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Cuts from broken glass, Chemical exposure	3H	<ul style="list-style-type: none"> - Conduct a toolbox talk on handling glassware - Check all glassware for damage before use - Wear safety goggles, gloves, and a lab coat - Ensure workspace is well-lit and uncluttered - Use appropriate tools for handling chemicals - Review the Material Safety Data Sheets (MSDS) - Ensure chemical spill kit is accessible - Train on first aid response for cuts and exposure - Store chemicals securely and labelled - Regularly inspect and maintain glassware 	2M
2. Glassware Handling	Slips from spillage, Contact with heated glass	3H	<ul style="list-style-type: none"> - Use heat-resistant gloves for handling hot glassware - Keep floor dry and free of obstacles - Use rubber mats around workstations - Clean spills immediately following protocol - Use tongs or other tools to handle hot glassware - Display 'Hot Surface' signs near relevant areas - Check heated glassware for residual heat - Coordinate activities to avoid overcrowding - Ensure adequate ventilation to disperse any fumes - Wear suitable enclosed footwear 	2M
3. Transport	Impact during transport, Dropping glassware	3H	<ul style="list-style-type: none"> - Use sturdy trays with grips for transport - Double-check pathway for obstacles - Carry minimal glassware per trip - Label transport trays with contents - Use carts for large or heavy items - Plan route to avoid disturbances - Communicate with others during transport - Ensure all lids and stoppers are secure 	2M

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			<ul style="list-style-type: none"> - Use secondary containment where feasible - Implement team lifting for oversized items 	
4. Set Up	Inadequate assembly causing breakage, Electric hazards	3H	<ul style="list-style-type: none"> - Verify assembly is correct and secure - Use proper lifting techniques - Ensure all electrical connections are properly insulated - Use safety barriers to prevent access to the assembly area - Post warning signs to alert others of the work area - Use proper PPE (hard hat, safety glasses, gloves) - Ensure all tools and equipment are in good working order - Use proper storage and handling procedures for materials - Implement a safety check before starting work - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner - Use proper disposal procedures for waste - Implement a safety plan for the work - Use proper training and supervision - Ensure all work is done in a safe and controlled manner - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner 	1L
5. Procedure Execution	Chemical splashes, Overpressure breakage	4A	<ul style="list-style-type: none"> - Use proper PPE (hard hat, safety glasses, gloves) - Ensure all equipment is properly calibrated and maintained - Use proper storage and handling procedures for materials - Implement a safety check before starting work - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner - Use proper disposal procedures for waste - Implement a safety plan for the work - Use proper training and supervision - Ensure all work is done in a safe and controlled manner - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner 	2M
6. Sample Collection	Contamination, Cross-contamination with other samples	3H	<ul style="list-style-type: none"> - Use proper PPE (hard hat, safety glasses, gloves) - Ensure all equipment is properly calibrated and maintained - Use proper storage and handling procedures for materials - Implement a safety check before starting work - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner - Use proper disposal procedures for waste - Implement a safety plan for the work - Use proper training and supervision - Ensure all work is done in a safe and controlled manner - Use proper communication and coordination with the team - Ensure all work is done in a safe and controlled manner 	1L

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7. Glassware Cleaning	Chemical residue, Mechanical damage during cleaning	3H		2M
8. Storage	Organisational hazards, Poor storage, Improper storage	3H		1L
9. Disposal	Injury from sharp edges, Improper chemical disposal	3H		1L

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10. Emergency Procedures	Inadequate response, Injury during evacuation	4A		2M
11. Inspections and Maintenance	Missed faults, Inadequate maintenance	3H		1L
12. Training and Induction	Unfamiliarity with equipment, Non-compliance with safety procedures	4A		2M

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13. Record Keeping	Data loss, Inaccurate records	2M		1L
14. Visitor Management	Unfamiliarity with laboratory environment, Interference with operations	3H		1L
15. Communication	Miscommunication, Delayed reporting of incidents	2M		1L

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SAMPLE

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work