

Manipulate Industrial Solvents Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS 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:								Notes on Hierarchy of Controls:	
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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. Eliminate	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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	Chemical spills, Inhalation of fumes	3H	<ul style="list-style-type: none"> - Use of appropriate PPE including gloves and mask - Ensure proper ventilation in the area - Train workers on spill response procedures - Store solvents in labelled and sealed containers - Maintain an accessible chemical spill kit - Perform regular equipment inspections - Ensure emergency phone numbers are visible and up-to-date - Implement chemical use protocols - Limit the quantity of solvents in use at any time - Conduct routine air quality monitoring 	2M
2. Review Safety Procedures	Inadequate training leading to mishandling, Non-compliance with safety protocols	4H	<ul style="list-style-type: none"> - Conduct regular safety training sessions - Update safety protocols regularly - Ensure easy access to safety documentation - Perform competency assessments for all workers - Reinforce the importance of compliance through signage - Assign a safety officer to oversee operations - Use real-life case studies in training - Conduct spot checks regularly - Encourage worker feedback on procedures - Implement disciplinary measures for non-compliance 	3H
3. Equipment Setup	Electrical hazards, Static discharge	3H	<ul style="list-style-type: none"> - Ensure equipment is grounded - Perform safety checks on all electrical components - Use anti-static mats where necessary - Label all electrical equipment clearly - Train workers on the proper handling of electrical tools - Regular maintenance of electrical systems - Implement lockout/tagout procedures - Avoid using damaged cables 	2M

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			<ul style="list-style-type: none"> - Follow manufacturer instructions for equipment use - Provide additional training for complex equipment 	
4. Obtain Solvents	Handling heavy containers, Exposure to leaks	3H	<ul style="list-style-type: none"> - Use proper lifting techniques (bend knees, back straight) - Wear appropriate PPE (gloves, safety glasses) - Ensure containers are properly sealed and labeled - Work in a well-ventilated area - Have spill kits available - Train staff on proper handling procedures - Use secondary containment for transfers - Avoid direct contact with skin or eyes - Keep containers away from heat sources - Use proper storage practices - Clean up spills immediately 	2M
5. Transport Solvents	Tripping hazards, Spillage during transport	3H	<ul style="list-style-type: none"> - Use proper lifting techniques - Wear appropriate PPE (gloves, safety glasses) - Ensure containers are properly sealed and labeled - Work in a well-ventilated area - Have spill kits available - Train staff on proper handling procedures - Use secondary containment for transfers - Avoid direct contact with skin or eyes - Keep containers away from heat sources - Use proper storage practices - Clean up spills immediately 	2M
6. Initial Mixing	Chemical reaction causing vapour, Spillage leading to slips	4A	<ul style="list-style-type: none"> - Perform mixing in a fume hood - Wear appropriate PPE (goggles, gloves, lab coat) - Add chemicals slowly and carefully - Monitor temperature and pressure during reaction - Have spill kits available - Clean up spills immediately - Avoid direct contact with skin or eyes - Keep containers away from heat sources - Use proper storage practices 	3H

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7. Use of Solvents	Skin contact, Inhalation of vapours	4A		2M
8. Supervision	Lack of monitoring, ineffective communication	3H		2M
9. Handling Waste	Chemical burns, Environmental contamination	4A		3H

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10. Clean-Up	Residual chemical exposure, Slips, trips, and falls	3H		2M
11. Maintenance	Equipment failure, Chemical build-up	3H		2M
12. Record Keeping	Inaccurate data, Lack of documentation	2M		1L

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13. Continuous Improvement	Resistance to change, Inadequate implementation	3H		2M
14. Emergency Response Drills	Unpreparedness, Panic during emergencies	4A		3H
15. Review and Feedback	Omission of critical feedback, Lack of follow-through	3H		2M

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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>

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>

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>

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>

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>

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

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.