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

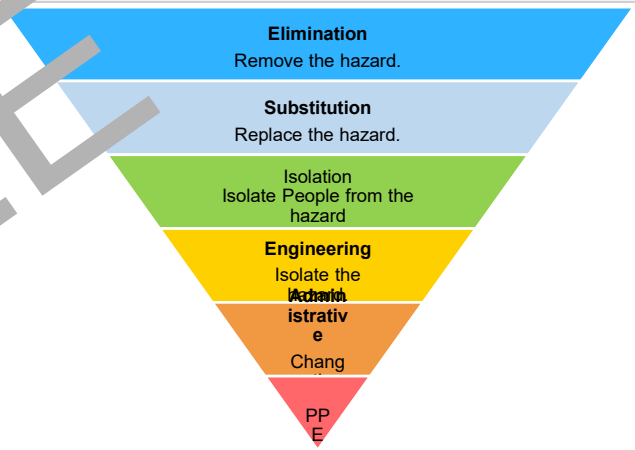
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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. Legal Compliance, Governance and WHS Management System	• Lack of documented WHS management system for powder coating activities, leading to inconsistent controls and non-compliance with the WHS Act 2011 and WHS Regulations 2011 • Inadequate identification and management of powder coating as a hazardous chemicals process, including failure to maintain a hazardous chemicals register and safety data sheets (SDS) • Poor integration of powder coating risks into the organisation's overall WHS policies, risk registers and consultation arrangements • Failure to clearly define and document PCBUs' due diligence obligations and WHS responsibilities for managers, supervisors and workers involved in on-site powder coating • No formal change management process when introducing new powders, spray equipment, curing methods or ventilation systems • Insufficient consideration of overlapping duties where multiple PCBUs share the same site (e.g. client sites, contractors, labour hire)	High	• Establish and maintain a documented WHS management system that explicitly covers powder coating of metal parts on-site, aligned to the WHS Act 2011, WHS Regulations 2011 and relevant Safe Work Australia Codes of Practice (e.g. Managing Risks of Hazardous Chemicals in the Workplace, Managing Noise and Preventing Hearing Loss at Work, Managing the Work Environment and Facilities) • Develop a documented powder coating WHS policy and overarching risk management procedure that requires identification, assessment, control and review of all system-level risks associated with on-site powder coating operations • Create and maintain a hazardous chemicals register for all powders, solvents, cleaners and associated products used in powder coating, ensuring current SDS (from Australian suppliers) are available and accessible to workers at all times • Clearly allocate WHS duties and responsibilities for officers, managers, supervisors, HSRs, contractors and workers involved in powder coating, including due diligence obligations for officers under the WHS Act 2011 • Implement a formal management of change procedure requiring risk assessment, consultation and sign-off prior to introducing new powders, application technologies, curing methods, fume extraction systems or work processes • Ensure overlapping duties are managed through written WHS coordination plans and interface agreements with host PCBUs, labour hire providers and specialist contractors, covering powder coating activities, exclusion zones and shared emergency arrangements • Schedule regular internal WHS audits and compliance checks of powder coating systems, governance arrangements and documentation, with corrective actions tracked to close-out • Review and update the WHS management system at least annually or after incidents, regulatory changes, or significant changes to powder coating processes	Medium
2. Hazardous Chemicals and Flammable Atmosphere Management	• Inadequate system for selection, approval and control of powder coating products, leading to use of incompatible or higher-risk materials (e.g. more flammable, higher toxicity) • Poor management of combustible powder accumulation in spray areas, ducts and surrounding surfaces, increasing risk of dust explosion or fire • Lack of classification and documentation of hazardous areas where explosive dust atmospheres may occur (e.g. near spray booths, curing ovens, powder recovery systems)	High	• Implement a formal chemical approval process for all new powders and associated chemicals, requiring WHS review of SDS, flammability, health hazards and compatibility prior to purchase and use • Develop and enforce a hazardous chemicals management procedure specific to powder coating, detailing storage, handling, decanting, labelling, use, disposal and spill response requirements • Undertake a hazardous area classification assessment (by a competent person) for spray zones, powder recovery systems and adjacent areas, and document hazardous zones (e.g. Zone 21/22) where applicable • Specify and maintain explosion-protected or appropriately rated electrical and mechanical equipment in classified areas, and prohibit non-compliant tools and devices in or near the spray zone • Implement engineering and administrative systems to prevent accumulation of combustible powder (e.g. scheduled cleaning programs, anti-static housekeeping procedures, maintenance of extraction and recovery systems, and documented cleaning responsibilities)	Medium

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
	• Insufficient control of ignition sources within or near the powder application zone, including non-rated electrical equipment, static discharge, hot surfaces and portable tools • Inadequate segregation and storage systems for powders, solvents and associated chemicals, increasing risk of fire, contamination, and incompatible chemical reactions • Failure to review SDS information and integrate it into procedures, training and emergency planning • Poor labelling and decanting practices leading to unidentified containers and misuse of powders or solvents		• Ensure secure, segregated storage for powders and associated chemicals, with ventilation, separation from ignition sources, spill containment and proper segregation of incompatible substances • Mandate compliant labelling for all containers, incl[illegible]g decanted materials, in line with the Globally Harmonised System (GHS) and relevant WHS R[illegible]gulations • Embed SDS requirements into induction, [illegible]ning, risk as[illegible]ssments and emergency procedures so that workers and supervisors understand health, [illegible] and e[illegible]osion hazards and required controls • Review hazardous chemicals management sy[illegible]s at defined [illegible]ervals and following near misses, fires or complaints about odours o[illegible]xposure	
3. Ventilation, Extraction and Engineering Controls	• Inadequate design or capacity of spray booths and local exhaust ventilation (LEV) systems, leading to accumulation of airborne powder, reduced visibility and increased inhalation risk • Poor maintenance and inspection of extraction systems, filters and ductwork resulting in reduced pe[illegible]nce, dust build-up and fire ris[illegible] • Failure to ensure [illegible]at tempo[illegible] mobile powder coat[illegible]ps on cli[illegible] sites are supported by appropriate engineering controls (e.g. portable booths, extraction, captur[illegible] hoo[illegible]) • No system-level performance verification (e.g. airflow, capture velocity, filter integrity) for ventilation systems, leading to reliance on equipment without evidence of effectiveness • Inadequate segregation of powder coating and curing areas from other workspaces, causing powder drift and contamination of adjacent work areas or public spaces	High	• Spe[illegible]d procure spray booths and LEV systems that are designed and certified by competent [illegible]ersons f[illegible] powder coating applications, with appropriate capture velocities, filtration and fire/explosion r[illegible] controls • Establish a planned inspection, testing and maintenance schedule for all spray booths, filters, fans, ducting and capture systems, including documented airflow checks and filter replacement intervals • Develop engineering design standards for mobile or temporary powder coating on client sites (e.g. minimum extraction capacity, booth/enclosure requirements, airflow direction, containment screens) and ensure they are incorporated into job planning • Require commissioning and periodic performance verification of ventilation systems by a competent person, with written reports and corrective actions for non-conformances • Implement physical segregation of powder coating areas (e.g. booths, curtains, barriers, directional airflow) to prevent powder migration to other work areas and to protect non-involved workers and members of the public • Integrate ventilation system status into pre-start and supervisory checks, so that powder coating cannot proceed where extraction or booth systems are not functional or are out of service • Maintain engineering drawings, manuals and compliance certificates for all ventilation and booth systems, and ensure they are accessible to maintenance and WHS personnel	Medium
4. Health Risks, Exposure Monitoring	• Chronic inhalation exposure to fine powder particles and decomposition products from curing, potentially causing	High		Medium

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
and Occupational Hygiene	respiratory sensitisation, asthma or other long-term health effects • Dermal exposure to powders and associated chemicals leading to skin irritation, dermatitis or sensitisation • Inadequate system for assessing and controlling exposure to hazardous substances (e.g. failure to reference Workplace Exposure Standards for airborne contaminants) • Absence of health monitoring where required for specific substances, resulting in delayed detection of adverse health effects • No structured approach to managing vulnerable workers (e.g. pre-existing respiratory or skin conditions, pregnancy, young workers) in higher-risk powder coating environments		[redacted]	
5. Personal Protective Equipment (PPE) and Respiratory Protection Program	• Reliance on PPE [illegible] system to ensure correct selection, fi use and maintenance, leading to ineffective protection • No formal respiratory protection program, resulting in incorrectly selected respirators, poor fit and inadequate control of inhalation exposures • Inconsistent provision and enforcement of PPE use between different work crews, shifts or client sites • Poor storage, cleaning and replacement systems for PPE leading to contamination, degraded performance or cross-infection	Medium	[redacted]	Low

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
6. Equipment, Plant and Maintenance Systems	• Lack of systematic inspection and maintenance of powder coating equipment (e.g. spray guns, hoses, powder hoppers, ovens, conveyors), leading to leaks, failures and unsafe operating conditions • Use of undocumented or modified equipment without engineering assessment, creating potential ignition sources or unsafe pressures and temperatures • Inadequate guarding and interlocks on moving parts (e.g. conveyors, hangers, fans), resulting in entanglement or crush hazards • Failure to integrate powder coating equipment into the organisation's plant register and maintenance management system • No formal process for isolating and locking out equipment during maintenance or cleaning, increasing ri of inadvertent start-up	High	[redacted]	Medium
7. Training, Competency and Supervision	• Inadequate indu n and t ific training for workers ntractors performing powder coating on-site, resulting in unsafe practices and misunderstanding of haz • No formal competency framework or verification of skills for key roles (e.g. sprayers, supervisors, maintenance personnel), leading to inconsistent quality and safety outcomes • Insufficient supervision of high-risk or less-experienced workers, especially during mobile or remote on-site jobs • Lack of refresher training, leading to drift from safe systems of work and non-compliance with procedures	High	[redacted]	Medium

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
			[redacted]	
8. Contractor, Subcontractor and Labour Hire Management	• Poor control of contractors or labour hire workers performing powder coating activities, resulting in inconsistent application of the host PCBU's WHS standards • Inadequate communication of site-specific powder coating hazards and controls to visiting or temporary workers • Lack of clarity over which PCBU controls particular risks (e.g. ventilation, emergency response, access control) on shared or client sites • Failure to verify contractor competency, licensing, insurance and WHS performance history before engagement	Medium	[redacted]	Low
9. Site Planning, Layout and Traffic Management	• Inadequate plann[redacted] of on-site powder coating locations, [redacted]ading to wo[redacted] occurring in unsuit[redacted] [redacted]e ar[redacted] (e.g. poor ventilation, public access, confined or poorly lit spaces) • Uncontrolled interaction[redacted] powder coating areas and vehicle or pedestrian traffic, increasing risk of collision, exposure or damage to equipment • Insufficient control of access to spray areas, causing entry of unauthorised or unprotected persons into hazardous zones • Poor management of storage and staging areas for coated parts, creating trip hazards, unstable loads and potential blocking of emergency egress	Medium	[redacted]	Low

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
10. Fire, Explosion and Emergency Management	• Inadequate emergency preparedness for powder-related fires or dust explosions, including lack of firefighting equipment suitable for combustible powders and electrical equipment • Poor integration of powder coating hazards into site emergency plans and evacuation procedures • Insufficient training of workers and supervisors on recognising fire and explosion precursors (e.g. abnormal smells, ventilation failure, significant powder build-up) • Failure to coordinate emergency arrangements with host PCBUs, emergency services and neighbouring businesses on shared or multi-tenant sites	High	[redacted]	Medium
11. Housekeeping, Waste and Environmental Management	• Accumulation of overspray powder on floors, equipment and [illegible]es, increasing slip, trip [illegible]e and explosion risks • Uncontrolled disp[illegible]aste pow[illegible]r, filters and contaminated consumable creating environmental breaches a[illegible] secondary exposure risk[illegible] • Lack of systematic cleaning procedures for powder coating areas, resulting in inconsistent standards between shifts and sites • Powder migration to stormwater systems, public areas or client property due to poor containment and housekeeping practices	Medium	[redacted]	Low
12. Planning, Scheduling and Fatigue Management	• Compressed timeframes and poor job planning leading to shortcuts, non-compliance with procedures and	Medium	[redacted]	Low

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
	inadequate setup of engineering controls for on-site powder coating • Extended shifts or night work without adequate fatigue management, affecting decision-making and safe operation of powder coating plant and associated equipment • Inadequate allowance in schedules for set-up, curing times, cleaning and safe pack-down, causing overlap of activities and congestion in work areas		[redacted]	
13. Consultation, Communication and Worker Participation	• Limited consultation with workers performing powder coating about hazards, controls and proposed changes, leading to impractical procedures and low buy-in • Poor communicati of site-specific hazards, client re ements and changes in powde ecificati equipment or work • Underutilisation of health and safe representatives (HSRs) and com tees in identifying and solving p coating safety issues • Inadequate mechanisms for workers to report concerns, near misses or improvement ideas related to powder coating systems	Medium	[redacted]	Low
14. Incident Reporting, Investigation and Continuous Improvement	• Under-reporting of powder coating-related incidents, near misses and health complaints, leading to missed opportunities to correct systemic issues • Superficial or inconsistent incident investigations that focus on worker	Medium	[redacted]	Low

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
	behaviour rather than underlying system and management causes • Failure to share lessons learned from powder coating incidents across different sites or crews		[redacted]	

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 FOR 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 2025
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-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/forms-and-resources/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