



# Safe Work Method Statement (SWMS)

Enviroprep Media Blasting  
147 Lindeman Road,  
Beerwah, QLD 4519  
Phone: Ph: 0477 066 138  
Email: contactus@enviroprep.com.au

Project: [Redacted]

SWMS No: 01

Work Activity: Abrasive Blasting

**ALL PERSONS INVOLVED IN THE WORKS MUST HAVE THE SWMS EXPLAINED AND COMMUNICATED**

## SWMSDETAILS

Brief Description of Work Activity: [Redacted]

Location: [Redacted]

Date: [Redacted]

Employer/Contractor: Enviroprep Media Blasting

ABN: 46 304 576 140

Date to be Reviewed: 06.12.2018

Personnel Responsible for Monitoring this Activity: Supervisor Daniel Hetaraka

**Codes of Practice / Standards Consulted:**  
These must be complied with.

Work Health Safety Act 2011, Work Health Safety Regulations 2011, AS/NZS1715-1716: Respiratory Devices; AS/NZS1270: Hearing Protection; Electrical Safety Act 2002, Electrical Safety Regulation 2013, Hazardous Manual Tasks COP 2011, How to Manage Work Health & Safety Risks COP 2011, Managing the risk of falls at workplaces COP 2011, AS/NZS 1336 Recommended practices for occupational eye protection AS/NZS 1337 Personnel Eye Protection, AS/NZS 4501 Occupational Protective Clothing, AS/NZS 3760 In Service Safety Inspection and Testing of Electrical Equipment, Work Health and Safety Consultation, Co – Operation and Co - Ordination COP 2011, Abrasive Blasting COP 2013,

**Plant and Equipment Required for this Activity:** Abrasive Blasting equipment, including attachments

**Details of Maintenance Checks Required for this Activity:** Prestart to be conducted on all plant including extraction system daily before use

**Materials Used:** Blasting Grit (compressed air and recycled glass with water)

**PPE Required:** Steel Capped Boots, Safety Glasses, Ear plugs/Ear muffs, Gloves, Respirator, Tight fitting clothing, No loose jewellery, Wear a hood or helmet type airline respirator if possible, high visibility clothing

**SDS Required? (Yes / No)** No

**Personnel Qualifications Required for this Activity:** Competent in Operation of Abrasive Blasting Equipment

<b>SWMS NO: 1</b>	<b>ACTIVITY: ABRASIVE BLASTING</b>
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Relevant WorkCover Ticket for task has been undertaken


**Review and Corrective Actions:**

If a failure is identified in the SWMS, works will stop, the SWMS will be amended and the changes communicated to the workforce.

**Lend Lease Authority to work permit system.**

**Specific Training Required for this Activity:** Training in safe use of Abrasive Blaster & Equipment  
 Training in Manual Handling

**Personnel consulted on development of SWMS:**

Name:	Signature:	Name:	Signature:
Daniel Hetaraka			

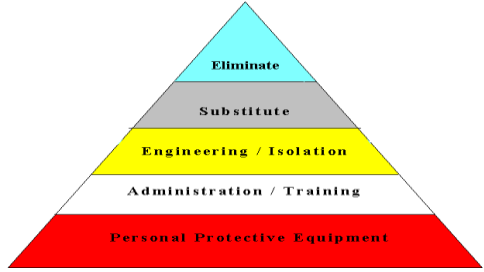

**APPROVED BY SENIOR MANAGEMENT**

The hierarchy of controls needs to be considered when identifying control measures. The highest level of control should be implemented wherever reasonably practicable.

Name: Daniel Hetaraka

Signature: 

Date: 04.12.2017

Hierarchy of Controls	Examples	Start with Highest Level of Control	
Eliminate	Remove the hazard completely		
Substitute	Substitute with a less hazardous material or plant		
Engineer	Redesign the work process to be done differently		
Isolate	Isolate the person from the hazard or hazard from person		
Administration	Admin controls for e.g. Job rotation, supervision, Instruction		
PPE	Using PPE (Least favored method of control)	Lowest Level of Control	

**LIKELIHOOD** 'Likelihood that the stated consequence will occur' **EXPOSURE** 'Consider the exposure (frequency) factor when determining the likelihood of the risk/hazard event occurring.'

Almost certain	Almost inevitable outcome, expected to occur in most circumstances.
Likely	Not a certainty but there is a good chance of occurrence.
Possible	Could occur.
Unlikely	Could occur but not expected. Would require multiple failures of systems/controls.
Rare	Little chance of occurrence. Would require a combination of factors to result.

Hazard event occurs	Exposure factor
Continuously	Many times daily
Frequently	Approximately once daily
Occasionally	Once a week to once a month
Infrequent	Once a month to once a year

**CONSEQUENCE** 'The outcome of an event expressed qualitatively, being a loss, injury, disadvantage or gain.'

	Health & Safety	Environment
<b>Catastrophic</b>	Fatality or permanent disability (Class 1 incident)	High severity which has or may have permanent and/or irreversible effects
<b>Major</b>	Life threatening incident, Lost Time Injury or ongoing illness/health effects (Class 2 incident)	Medium severity which has or may have persistent but reversible effects
<b>Moderate</b>	Incident that requires medical treatment by a qualified medical practitioner (Class 2 incident)	Low severity which has short term and reversible effects
<b>Minor</b>	Incident that may require first aid treatment only (Class 3 incident)	Impact confined to area impacted by work operations
<b>Insignificant</b>	No injuries	Very low environmental impact, not noticeable

**QUALITATIVE RISK ANALYSIS MATRIX: LEVEL OF RISK**

LIKELIHOOD	CONSEQUENCE				
	Insignificant 5	Minor 4	Moderate 3	Major 2	Catastrophic 1
<b>A - Almost Certain</b>	H	H	E	E	E
<b>B - Likely</b>	M	H	H	E	E
<b>C - Possible</b>	L	M	H	E	E
<b>D - Unlikely</b>	L	L	M	H	E
<b>E - Rare</b>	L	L	M	H	H

**RISK MATRIX**

<b>Extreme</b>	Extreme risk, immediate action required, works must not proceed at this level.
<b>High</b>	High risk, acceptable to proceed only with strict controls or a short duration
<b>Moderate</b>	Moderate risk, acceptable to proceed with suitable controls
<b>Low</b>	Low risk, acceptable to proceed

<b>L ACCEPTABLE    M ACCEPTABLE WITH CONTROLS    H ACCEPTABLE WITH STRICT CONTROL/SHORT DURATION    E UNACCEPTABLE</b>									
Procedure Break the job down into steps	Potential Safety and Environmental Hazards What can go wrong	Risk Rating			Control Measures	Residual Risk Rating			Person Responsible To ensure management method applied
		L X	C =	R		L X	C =	R	
<b>Arrival on site</b>	Unauthorised site entry	B	4	H	Report to site office upon entry to site.	D	4	L	Foreman Plant Operator Supervisor Workers
	Collisions with other equipment	A	3	E	Access site as per TMP. Ensure All warning devices and lights are functioning correctly and on.	D	3	M	Foreman Plant Operator Supervisor Workers
	Not site inducted Untrained and inexperienced persons	B	4	H	Personnel to complete site specific inductions before work commences. All persons to provide certificate of currency for the prescribed occupations.	D	4	L	Foreman Plant Operator Supervisor Workers
	Non-performance to site rules and procedures	B	4	H	All persons to be conforming to P.P.E. requirements for Principal Contractor requirements for site.	D	4	L	Foreman Plant Operator Supervisor Workers
<b>Establish work area</b>	Unauthorised entry	B	4	H	Barriers, Signs establishment of an exclusion zone Only authorized persons allowed	D	4	L	Plant Operator Supervisor Workers
	Slips Trips and Falls	B	4	H	Ensure all housekeeping is done and any objects that are not required are removed	D	4	L	Plant Operator Supervisor Workers
	Personal, Public Injury	B	4	H	Know where services are before use from Principal Contractor. Relevant Principal Contractor permits to be filled out before starting works. Disconnection should be confirmed before any work recommences.	D	4	L	Plant Operator Supervisor Workers

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<b>Unload tools, materials and equipment</b> <b>From work ute</b> <b>Establish work area</b>	Sprains and strains. Manual Handling	B	3	H	Lifting Aids such as trolleys to be used where possible. Where manual handling is required the following to be utilized; <ul style="list-style-type: none"> <li>- Minimise the weight of loads where possible so excessive loads are not carried.</li> <li>- Use of good lifting techniques as follows;</li> <li>- A firm grip of the load</li> <li>- Keep load close to the body</li> <li>- Leg muscles to do the work when lifting keep back straight bend at the knees</li> <li>- Smooth lift avoiding twisting or jerking</li> </ul>	D	3	M	Supervisor-Workers
	Slips trips & falls	B	4	H	Plan movements & ensure paths are clear from obstructions prior to lifting & handling loads	D	4	L	Supervisor-Workers
<b>Pre start</b>	Malfunction of Equipment & Plant	A	3	E	All Equipment to be inspected before use. Ensure area surrounding is clean and free of debris and hazards before use. Ensure all guards are secured and in working order. Test the stop button to ensure that it is functioning correctly If machine found with faults remove from service immediately make other workers aware and notify Supervisor for rectification.	D	3	M	Supervisor - Workers Operator
	Unsafe operation	A	3	E	When blasting, the nozzle should only be pointed at the work. A blast nozzle should never be pointed at any person. Blast hoses should be uncoiled when in use and operators should be adequately trained in the use and maintenance of this equipment.	D	3	M	Supervisor - Workers Operator

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	Incorrect P.P.E.	B	4	H	Workers exposed to high velocity particulate material should wear suitable PPE to protect against flying abrasive particles. The PPE should include: - eye protection - protective gloves (canvas or leather) - protective footwear - protective clothing (overalls, long trousers, blast suits, aprons) - High Impact Face Shield & Safety Glasses double eye protection	D	4	L	Supervisor - Workers Operator				
	Non Compliance of WHS Laws	B	4	H	Refer to WHS laws especially Code of Practice for Abrasive Blasting COP 2013	D	4	L	Supervisor - Workers Operator				
	Untrained Workers	B	4	H	Ensure workers involved in grit blasting are trained and competent to carry out the tasks safely.	D	4	L	Supervisor - Workers Operator				
	Incorrect / Defective Material Equipment	B	4	H	Never use sand / crystalline silica in place of grit for abrasive blasting.  Ensure the respiratory equipment such as air line hose, pressure regulator, filter is free from defects.  Ensure flexible hose, bulldog clamps & joints for grit are suitable for pressure rating of the system.	D	4	L	Supervisor - Workers Operator				

SWMS NO: 1

ACTIVITY: ABRASIVE BLASTING

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	Lack of communication	B	4	H	Ensure the presence of the Grit Blasting Supervisor in the area.  Establish emergency communication between Grit Blasting Supervisor and Grit Blaster.	D	4	L	Supervisor - Workers Operator
	Incorrect Air compressor	B	4	H	All valves should be of a rating equivalent to that of the pressure vessel and be correctly attached. A safety relief valve should be fitted on the compressor or air supply system and regularly checked.	D	4	L	Supervisor - Workers Operator

	<p>Incorrect Attachments Blast hoses, hose whips and couplings</p>	<p><b>A</b></p>	<p><b>3</b></p>	<p><b>E</b></p>	<p>Hoses should be constructed with anti-static rubber linings or fitted with an earth wire or similar mechanism to prevent electric shock. Static electricity may build up in dry blasting operations, from abrasive blasting equipment and/or from the surfaces being blasted. Static electricity can shock workers and create an ignition source, with the potential for explosion if there is a combustible atmosphere (for example, an atmosphere containing metal dust, organic abrasive or fine paint particles).</p> <p>You should ensure that: hoses or couplings are purpose designed the rated working pressure of a blast hose is not exceeded the hose from the pot to the blast nozzle is kept as straight as possible.</p> <p>In situations where a hose needs to be curved around an object, a long radius curve should be used. The use of sharp curves may create rapid wear on the hose, leading to the possibility of the hose malfunctioning blasting does not take place with a coiled hose whip checks or hose coupling safety locks or both are fitted to hoses safety cables are used to support the weight of elevated hoses pin holes are not taped in the blast hose.</p> <p>The hole will enlarge quickly and will cause a blow-out blast hoses are coiled and stored away from water, oil and chemicals to prevent rotting coupling fit is checked screws provided by the coupling manufacturer are used the hose end fits uniformly flush with the coupling shoulder nozzle holders and couplings fit snugly on the blast hose. Reject those that are loose hoses that have a damaged outer cover are replaced all hoses or lines are positioned in locations where they are not subject to damage, fouling or restrictions hoses, hose whips and couplings are inspected, tested and maintained in accordance with the manufacturer's instructions.</p>	<p><b>D</b></p>	<p><b>3</b></p>	<p><b>M</b></p>	<p>Supervisor - Workers Operator</p>
	<p>Incorrect operation</p>	<p><b>B</b></p>	<p><b>4</b></p>	<p><b>H</b></p>	<p>Abrasive blasting equipment should be fitted with a fast acting self-actuating cut-off device under the direct control of the nozzle operator that will immediately stop the flow of abrasive material.</p>	<p><b>D</b></p>	<p><b>4</b></p>	<p><b>L</b></p>	<p>Supervisor - Workers Operator</p>



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	Lead	B	2	E	Lead may be present in surface coatings or the object being blasted. The WHS Regulation contains specific requirements for working with lead in addition to the hazardous chemicals requirements. These include the identification of lead risk work and removing a worker from lead risk work in certain circumstances.	D	2	H	Supervisor - Workers Operator				
	Adverse Health	B	2	E	Workers undertaking abrasive blasting must undergo regular full medical checks at minimum every 12 months and records kept. In the event results were positive this must be reported to the regulator.	D	2	H	Supervisor - Workers Operator				
	Asbestos	B	2	E	No surfaces with an asbestos coated surface are allowed to be grit blasted. Check with Supervisor before starting	D	2	H	Supervisor - Workers Operator				
	Fire Explosion	B	2	E	Never allow any spray painting at the location, where grit blasting is in progress.	D	2	H	Supervisor - Workers Operator				
	Noise	A	3	E	Workers to wear hearing protection.	D	3	M	Supervisor - Workers Operator				
	Injury to workers	A	3	E	Ensure all equipment is safe to use and the blast handle is fitted with a emergency release handle (dead man handle) and is in working order.  Do not leave the grit blast equipment on whilst unattended.	D	3	M	Supervisor - Workers Operator				
	Toxic Vapors	B	2	E	Ensure work area has extraction system in place and workers are using breathing apparatus correctly.	D	2	H	Supervisor - Workers Operator				

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	Incorrect Housekeeping	B	4	H	Drift from abrasive blasting can be harmful not only to workers but also to members of the public. Good housekeeping can minimise the risk of exposure. Where practicable, accumulated dust should be removed using wet cleaning methods, or High Efficiency filter vacuum methods. Because workers undertaking cleaning work may be exposed to dust levels that exceed the exposure standard, they should wear PPE.	D	4	L	Supervisor - Workers Operator
	Lack of Facilities	B	4	H	Decontamination facilities should be provided to allow workers to shower and change clothes after the completion of blasting. Many types of dust (particularly lead dust) may enter the body by ingestion. It is therefore important that workers take care with personal hygiene by washing hands and face prior to eating or drinking. A clean area, separated from the blast site, should be provided for consuming food.	D	4	L	Supervisor - Workers Operator
<b>End of day works Pack up tools leave Site</b>	Housekeeping	B	4	H	Ensure all rubbish is disposed of in designated site bins Delineate lay down areas and work areas. Site fencing to be closed and locked to prevent unauthorised entry.	D	4	L	Supervisor-Workers.
	Injury to the public other workers	A	3	E	Ensure public protection is in place when crossing footpath. Have spotter monitor when crossing footpath. Stop public if required. Physical Barriers & Signage Cones around site vehicles when parked within public locations i.e. next to site works	D	3	M	Supervisor - Workers

SWMS NO: 1

ACTIVITY: ABRASIVE BLASTING

<u>L</u> ACCEPTABLE		<u>M</u> ACCEPTABLE WITH CONTROLS		<u>H</u> ACCEPTABLE WITH STRICT CONTROL/SHORT DURATION		<u>E</u> UNACCEPTABLE			
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SWMS Management & Compliance.	Failure in SWMS Injury to person Damage to equipment / property				If the SWMS has identified failures the following steps will take place; <ol style="list-style-type: none"> <li>1. Stop works and identify the failure.</li> <li>2. Investigate improvements</li> <li>3. Discuss / consult</li> <li>4. Update SWMS</li> <li>5. Review, amend SWMS, communicate to staff via toolbox</li> </ol>				Supervisor - Workers Operator

## REVIEWS

Review No:	1	2	3	4	5	6	7	8	9
Name & Initials	Daniel Hetaraka D.H.								
Date:	04.12.2017								

Review using the tool SWMS Review Checklist and guidance from Knowledge Resource using the Prepare, Review and Accept SWMS

## ENVIRONMENTAL ISSUES

Task	Activity that could harm the Environment and create an Environmental Risk	Risk Rating			Environmental Control Measures	Residual Risk Rating			Person Responsible
		P	C	T		P	C	T	
Housekeeping	Rubbish or discarded materials	B	3	H	Ensure all work areas are maintained in a tidy and safe manner. Dispose of all general waste and saw dust designated in bins.	E	3	M	Supervisor Workers
Contaminate the environment or create a trip hazard	Worker slips or trips and sustains personal damage	B	3	H	Environmental Representative or Foreman is to be informed immediately. Area is to be isolated and spill kit contents used to clean up spill. Incident report to be completed.	E	3	M	Supervisor Workers

<p><b>APPENDIX A – SELECTING AN ABRASIVE BLASTING MEDIUM</b></p> <p><b>Do not use:</b></p>	<p><b>Blast material which may be used:</b></p>
<p><input type="checkbox"/> Materials with any radioactive substances where the level of radiation exceeds 1 becquerels per gram, so far as is reasonably practicable</p> <p><input type="checkbox"/> Materials containing more than:</p> <ul style="list-style-type: none"> <li>o 0.1% antimony</li> <li>o 0.1% arsenic</li> <li>o 0.1% beryllium</li> <li>o 0.1% cadmium</li> <li>o 0.5% chromium (except as specified for wet blasting)</li> <li>o 0.1% cobalt</li> <li>o 0.1% lead (or which would expose the operator to levels in excess of those set out in Part 7.2 of the WHS Regulation)</li> <li>o 0.1% nickel</li> <li>o 0.1% tin</li> </ul> <p><input type="checkbox"/> Materials containing more than 1% free silica (crystalline silicon dioxide) including:</p> <ul style="list-style-type: none"> <li>o River sand</li> <li>o Beach sand or other white sand</li> <li>o Dust from quartz rock</li> <li>o Diatomaceous earth (pool filter material)</li> </ul> <p><b>In dry abrasive blasting:</b> recycled materials which have not been treated to remove respirable dust recycled materials for which treatment has not removed toxic materials to below the prescribed concentrations any substance likely to harm the upper respiratory tract.</p> <p><b>In wet abrasive blasting:</b> any substance that contains chromate, nitrate or nitrite</p>	<p><b>The following materials will not usually result in exposures greater than national exposure standards. However, you should check the safety data sheet to ensure the composition of substances does not exceed prohibited levels</b></p> <p>ilmenite aluminium oxide garnet (low crystalline silica content only) other rocks and mineral sands which do not contain significant levels of silica metal shot steel grit crushed glass sodium bicarbonate plastic beads glass beads some metal slags (check content analysis before purchase) dry ice.</p> <p><b>Note: There are environmental requirements in relation to abrasive blasting mediums. If in doubt, seek advice from your local council.</b></p>