

R-flor Radiant Barrier Particleboard Flooring

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name	Borg Manufacturing, ABN 31 003 246 357
Address	2 Wella Way, Somersby, NSW, Australia, 2250
Telephone	1300 500 250 / 02 4340 9800
Facsimile	1300 500 255 / 02 4340 5841
Emergency	1300 300 547
Synonyms	R-flor / R-flor YELLOWtongue / R-flor REDtongue / R-flor BLUetongue / R-flor Radiant Barrier Flooring
Use	Flooring

2. HAZARD IDENTIFICATION

Not classified as hazardous according to Safe Work Australia Criteria.

UN Number	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated
DG Class	None Allocated
Transport Hazard Class	None Allocated

3. COMPOSITION/INFORMATION OF INGREDIENTS

Ingredient	Formula	CAS No.	Content
Permethrin	C21-H20-Cl2-O3	52645-53-1	<0.1%
Softwood(s)	Not Available	Not Available	>60%
Melamine/Urea/Formaldehyde Resin	Not Available	Not Available	10 - 30%
Non Hazardous Ingredients	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.
Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Advice to Doctor	Treat symptomatically.

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5. FIRE FIGHTING MEASURES

Flammability	Combustible. May evolve toxic gases (carbon/nitrogen oxides, ammonia, formaldehyde, hydrocarbons) when heated to decomposition. May evolve hydrogen cyanide gas when heated to decomposition.
Fire and Explosion	Dry wood dust in high concentrations-in-air and at the temperatures > 204 °C (>40g of dust per m ³ of air) may spontaneously explode. Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use water fog to cool intact containers and nearby storage areas.
Extinguishing	Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways.

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt, collect and reuse where possible.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry area.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standard	Ingredient	Reference	TWA		STEL	
			ppm	mg/m ³	ppm	mg/m ³
	Formaldehyde	SWA (AUS)	1	1.2	2	2.5
	Wood dust (soft wood)	SWA (AUS)	-	5	-	10
Biological Limits	No biological limit allocated.					
Engineering Controls	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.					
PPE	Wear leather gloves. Where dust is generated, wear dust-proof goggles, cotton/PVC gloves, a Class P1 (Particulate) respirator, coveralls or protective clothing. Work areas should be cleaned at least twice daily by a vacuum or wet methods. If cutting or sanding with potential for dust generation, wear: dust-proof goggles and a Class P1 (Particulate) respirator.					

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pressed boards	Odour	Slight odour
Flammability	Combustible	Flash point	Not Available
Boiling point	Not Available	Upper explosion limit	Not Available
Melting point	Not Available	Lower explosion limit	Not Available
Evaporation rate	Not Available	Autoignition temperature	> 200°C
pH	Not Available	Decomposition temperature	Not Available
Vapour density	Not Available	Viscosity	Not Available
Specific gravity	Not Available	Partition coefficient	Not Available
Solubility (water)	INSOLUBLE	% Volatiles	Not Available
Vapour pressure	Not Available	Density	650 kg/m ³ to 800 kg/m ³

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Incompatible Materials	Oxidising agents and acids.
Hazardous Decomposition Products	May evolve toxic gases (carbon/nitrogen oxides, ammonia, formaldehyde, hydrocarbons) when heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	<p>Low to moderate toxicity. Use safe work practices to avoid eye or skin contact and inhalation. This product is bonded by formaldehyde resin and formaldehyde may be released during machining. Product may also release small quantities (<0.01%) of formaldehyde in gaseous form that may dissipate over time.</p> <p>Adverse health effects associated with over exposure formaldehyde are not anticipated due to the product form and its low concentration. Formaldehyde is a skin sensitiser, and is classified as a confirmed human carcinogen (IARC Group 1). Wood dust is also classified as a confirmed human carcinogen (IARC Group 1).</p>
Eye	Due to product form and nature of use, the potential for exposure is reduced. Product may only present a hazard if dust is generated. Contact may result in mechanical irritation.
Inhalation	Exposure considered unlikely. An inhalation hazard is not anticipated unless cut, drilled or sanded with dust generation, which may result in irritation of the nose and throat. If heated, over exposure to fumes may result in irritation of the nose and throat, with nausea and headache. Formaldehyde is classified as a confirmed human carcinogen (IARC Group 1) and respiratory sensitiser.
Skin	Low irritant. Prolonged or repeated exposure to dust may result in mild irritation. May cause sensitisation by skin contact.
Ingestion	Ingestion is considered unlikely due to product form..
Toxicity data	<p>Permethrin (52645-53-1)</p> <p>LC50 (Inhalation): 485 mg/m³ (rat)</p> <p>LD50 (Ingestion): 383 mg/kg (rat)</p> <p>LD50 (Intraperitoneal): 429 mg/kg (mouse)</p> <p>LD50 (Intravenous): 31 mg/kg (mouse)</p> <p>LD50 (Skin): 1750 mg/kg (rat)</p> <p>LD50 (Subcutaneous): 6600 mg/kg (rat)</p>

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12. ECOLOGICAL INFORMATION

Environment Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Reuse where possible. Not regulated as a hazardous waste by Australian environmental authorities. Off-cuts and general waste material should be placed in containers and disposed of at approved landfill sites or burnt in an approved furnace or incinerator in accordance with disposal authority guidelines. Do not burn in barbeques, combustion stoves or open fires in the home as irritating gases may be evolved.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG / IMO)	Air Transport (IATA / ICAO)
UN No.	None Allocated	None Allocated	None Allocated
Proper Shipping Name	None Allocated	None Allocated	None Allocated
DG Class/ Division	None Allocated	None Allocated	None Allocated
Subsidiary Risk(s)	None Allocated	None Allocated	None Allocated
Packing Group	None Allocated	None Allocated	None Allocated
GTEPG	None Allocated		
Specific EPG	None Allocated		
Environmental Hazards		None Allocated	
Hazchem Code	None Allocated		
EMS		None Allocated	
MARPOL 73/78		None Allocated	

15. REGULATORY INFORMATION

Poison Schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information The dust generated from this product is hazardous according to the criteria of ASCC.

Early fire hazard properties when tested to AS/NZS 1530 Part 3:
 Ignitability index: 13 - 16
 Spread of flame index: 4 - 8
 Heat evolved index: 4 - 10
 Smoke developed index: 2 - 4

Respirators In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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Combustible - Explosive	Carbonaceous/organic dusts have the potential, with dispersion, to present an explosion hazard if an ignition source exists. All equipment used to handle, transfer or store this product MUST BE cleaned thoroughly prior to cutting, welding, drilling or exposure to any other form of accumulation (where applicable, e.g. for flocculants).
Carbonaceous Dust	
Health Effects From Exposure	It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.
Personal Protective Equipment Guidelines	The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.
Abbreviations	<p>ACGIH - American Conference of Governmental Industrial Hygienists</p> <p>CAS # - Chemical Abstract Service number - used to uniquely identify chemical compounds</p> <p>CNS - Central Nervous System</p> <p>EC No. - European Community Number</p> <p>GHS - Globally Harmonized System</p> <p>IARC - International Agency for Research on Cancer</p> <p>mg/m³ - Milligrams per Cubic Metre</p> <p>PEL - Permissible Exposure Limit</p> <p>pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</p> <p>ppm - Parts Per Million</p> <p>REACH - Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals</p> <p>STOT-RE - Specific target organ toxicity (repeated exposure)</p> <p>STOT-SE - Specific target organ toxicity (single exposure)</p> <p>SUSMP - Standard for the Uniform Scheduling of Medicines and Poisons</p> <p>SWA - Safe Work Australia</p> <p>TLV - Threshold Limit Value</p> <p>TWA /OEL - Time Weighted Average or Occupational Exposure Limit</p>

CONTACT

For further information on this product, contact:

Borg Manufacturing (ABN 31 003 246 357)

Address: 2 Wella Way Somersby NSW 2250 Australia **Telephone:** 1300 500 250 **Fax:** 1300 500 255

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