

**Product Name** R-flor® Radiant Barrier Particleboard Flooring**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Supplier Name** Borg Manufacturing  
**Address** 2 Wella Way, Somersby, NSW, 2250, AUSTRALIA  
**Telephone** 1300 500 250  
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**Emergency** 1300 500 250  
**Email** sales@borgs.com.au  
**Synonym(s)** R-flor® · R-flor® YELLOWtongue® · R-flor® REDtongue · R-flor® BLUEtongue  
R-flor® Radiant Barrier Flooring®  
**Use(s)** FLOORING  
**SDS Date** 25 January 2012

**2. HAZARDS IDENTIFICATION****NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA****RISK PHRASES**

None allocated

**SAFETY PHRASES**

None allocated

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**UN Number** None Allocated **DG Class** None Allocated  
**Packing Group** None Allocated **Subsidiary Risk(s)** None Allocated  
**Hazchem Code** None Allocated

**3. COMPOSITION/ INFORMATION ON 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**

**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.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**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.

**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.

**Advice to Doctor** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

|                           |  |
|---------------------------|--|
| <b>Flammability</b>       | Combustible. May evolve toxic gases (carbon/ nitrogen oxides, ammonia, formaldehyde, hydrocarbons) when heated to decomposition. May also evolve hydrogen cyanide when heated to decomposition.  |
| <b>Fire and Explosion</b> | Dry wood dust in high concentrations-in-air and at the temperatures > 204°C (> 40g of dust per m <sup>3</sup> 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 waterfog to cool intact containers and nearby storage areas. |
| <b>Extinguishing</b>      | Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways.  |
| <b>Hazchem Code</b>       | None Allocated   |

## 6. ACCIDENTAL RELEASE MEASURES

|                 |   |
|-----------------|---|
| <b>Spillage</b> | If spilt, collect and reuse where possible. |
|-----------------|---|

## 7. STORAGE AND HANDLING

|                 |   |
|-----------------|---|
| <b>Storage</b>  | Store in a cool, dry area.  |
| <b>Handling</b> | 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 areas. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Standards

| Ingredient            | Reference | TWA |                   | STEL |                   |
|-----------------------|-----------|-----|-------------------|------|-------------------|
|                       |           | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| Formaldehyde          | SWA (AUS) | 1   | 1.2               | 2    | 2.5               |
| Wood dust (soft wood) | SWA (AUS) | --  | 5                 | --   | 10                |

|                             |  |
|-----------------------------|--|
| <b>Biological Limits</b>    | No biological limit allocated.   |
| <b>Engineering Controls</b> | Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. |

### PPE

|                    |   |
|--------------------|---|
| <b>Eye / Face</b>  | If sanding dry product, wear dust-proof goggles.                  |
| <b>Hands</b>       | Wear leather gloves.  |
| <b>Body</b>        | Not required under normal conditions of use.                      |
| <b>Respiratory</b> | If sanding dry product, wear a Class P1 (Particulate) respirator. |



## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                         |                |
|-------------------------|----------------|
| <b>Appearance</b>       | PRESSED BOARDS |
| <b>Odour</b>            | SLIGHT ODOUR   |
| <b>Flammability</b>     | COMBUSTIBLE    |
| <b>Flash point</b>      | NOT AVAILABLE  |
| <b>Boiling point</b>    | NOT AVAILABLE  |
| <b>Melting point</b>    | NOT AVAILABLE  |
| <b>Evaporation rate</b> | NOT AVAILABLE  |
| <b>pH</b>               | NOT AVAILABLE  |
| <b>Vapour density</b>   | NOT AVAILABLE  |

**Product Name** R-flor® Radiant Barrier Particleboard Flooring

|                                  |  |
|----------------------------------|--|
| <b>Specific gravity</b>          | NOT AVAILABLE                                  |
| <b>Solubility (water)</b>        | INSOLUBLE                                      |
| <b>Vapour pressure</b>           | NOT AVAILABLE                                  |
| <b>Upper explosion limit</b>     | NOT AVAILABLE                                  |
| <b>Lower explosion limit</b>     | NOT AVAILABLE                                  |
| <b>Autoignition temperature</b>  | > 200°C  |
| <b>Decomposition temperature</b> | NOT AVAILABLE                                  |
| <b>Viscosity</b>                 | NOT AVAILABLE                                  |
| <b>Partition coefficient</b>     | NOT AVAILABLE                                  |
| <b>% Volatiles</b>               | NOT AVAILABLE                                  |
| <b>Density</b>                   | 650 kg/m <sup>3</sup> to 800 kg/m <sup>3</sup> |

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**10. STABILITY AND REACTIVITY**

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|---|---|
| <b>Chemical Stability</b>               | Stable under recommended conditions of storage.   |
| <b>Conditions to Avoid</b>              | Avoid heat, sparks, open flames and other ignition sources.   |
| <b>Material to Avoid</b>                | Incompatible with oxidising agents (eg. hypochlorites) and acids (eg. nitric acid).                                 |
| <b>Hazardous Decomposition Products</b> | May evolve toxic gases (carbon/ nitrogen oxides, ammonia, formaldehyde, hydrocarbons) when heated to decomposition. |
| <b>Hazardous Reactions</b>              | Polymerization is not expected to occur.  |

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**11. TOXICOLOGICAL INFORMATION**

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|------------------------------|---|
| <b>Health Hazard Summary</b> | 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.   |
|                              | Adverse health effects associated with over exposure formaldehyde are not anticipated due to the product form and its low concentration. Formaldehyde is a respiratory and 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).  |
| <b>Eye</b>                   | 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.  |
| <b>Inhalation</b>            | 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. |
| <b>Skin</b>                  | Low irritant. Prolonged or repeated exposure to dust may result in mild irritation. May cause sensitisation by skin contact.  |
| <b>Ingestion</b>             | Ingestion is considered unlikely due to product form.   |
| <b>Toxicity Data</b>         | PERMETHRIN (52645-53-1)<br>LC50 (inhalation) 485 mg/m <sup>3</sup> (rat)<br>LD50 (ingestion) 383 mg/kg (rat)<br>LD50 (intraperitoneal) 429 mg/kg (mouse)<br>LD50 (intravenous) 31 mg/kg (mouse)<br>LD50 (skin) 1750 mg/kg (rat)<br>LD50 (subcutaneous) 6600 mg/kg (rat)   |

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**12. ECOLOGICAL INFORMATION**

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| <b>Environment</b> | 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. |
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**13. DISPOSAL CONSIDERATIONS**

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|-----------------------|--|
| <b>Waste Disposal</b> | 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. |
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## 14. TRANSPORT INFORMATION

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NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

|                       | LAND TRANSPORT<br>(ADG) | SEA TRANSPORT<br>(IMDG / IMO) | AIR TRANSPORT<br>(IATA / ICAO) |
|-----------------------|-------------------------|-------------------------------|--------------------------------|
| UN Number             | 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                |                                |

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## 15. REGULATORY INFORMATION

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|----------------------|--|
| Poison Schedule      | A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) |
| Inventory Listing(s) | <b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b><br>All components are listed on AICS, or are exempt.                                      |

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## 16. OTHER INFORMATION

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**Additional Information** The dust generated from this product is hazardous according to the criteria of SWA. Early fire hazard properties when tested to AS/NZS 1530 Part 3: Ignitability index: 14 - 16 Spread of flame index: 7 - 8 Heat evolved index: 6 - 10 Smoke developed index: 3 - 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.

**COMBUSTIBLE - EXPLOSIVE CARBONACEOUS DUST:** 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 heat or ignition sources. If bulk stored, containers should be ventilated on a routine basis to avoid vapour accumulation (where applicable, eg for flocculants).

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this ChemAlert 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.

**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 ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Product Name**      **R-flor® Radiant Barrier Particleboard Flooring**

|                      |                   |   |
|----------------------|-------------------|---|
| <b>Abbreviations</b> | ACGIH             | American Conference of Governmental Industrial Hygienists                                       |
|                      | CAS #             | Chemical Abstract Service number - used to uniquely identify chemical compounds                 |
|                      | CNS               | Central Nervous System  |
|                      | EC No.            | EC No - European Community Number   |
|                      | GHS               | Globally Harmonized System  |
|                      | IARC              | International Agency for Research on Cancer   |
|                      | mg/m <sup>3</sup> | Milligrams per Cubic Metre  |
|                      | PEL               | Permissible Exposure Limit  |
|                      | pH                | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
|                      | ppm               | Parts Per Million   |
|                      | REACH             | Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals              |
|                      | STOT-RE           | Specific target organ toxicity (repeated exposure)  |
|                      | STOT-SE           | Specific target organ toxicity (single exposure)  |
|                      | SUSMP             | Standard for the Uniform Scheduling of Medicines and Poisons                                    |
|                      | TLV               | Threshold Limit Value   |
|                      | TWA/OEL           | Time Weighted Average or Occupational Exposure Limit  |

**Revision History**

**Report Status**

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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**End of SDS**