1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: BORACOL 200 RH FUNGICIDE
Synonym(s): 200 RH BORACOL • BORACOL 200 RH

1.2 Uses and uses advised against
Use(s): ALGAE CONTROL • FUNGICIDE • INSECTICIDE • PRESERVATIVE

1.3 Details of the supplier of the product
Supplier name: KOPPERS PERFORMANCE CHEMICALS AUSTRALIA PTY LTD
Address: Cafirico Rd, Mount Gambier, SA, 5290, AUSTRALIA
Telephone: (08) 8723 1399
Fax: (08) 8723 0010
Email: kpc.admin@koppers.com.au
Website: www.kopperspc.com.au

1.4 Emergency telephone number(s)
Emergency: 1800 088 809

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classified as Hazardous According to Australian WHS Regulations

GHS classification(s):
- Acute Toxicity: Oral: Category 4
- Skin Corrosion/Irritation: Category 2
- Serious Eye Damage / Eye Irritation: Category 2A
- Toxic to Reproduction: Category 1B

2.2 Label elements
Signal word: DANGER

Pictogram(s):

Hazard statement(s):
- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H360: May damage fertility or the unborn child.

Prevention statement(s):
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response statement(s)
- P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338: IF exposed or concerned: Get medical advice/attention. Specific treatment is advised - see first aid instructions.
- P308 + P313: Take off contaminated clothing and wash before re-use.
- P362: Rinse mouth.
- P302: Wash with plenty of soap and water.
- P303: Rinse mouth.
- P305: Take off contaminated clothing and wash before re-use.
- P301: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P305: Take off contaminated clothing and wash before re-use.

Disposal statement(s)
- P501: Dispose of contents/container in accordance with relevant regulations.

Storage statement(s)
- P405: Store locked up.

2.3 Other hazards
No information provided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>203-473-3</td>
<td>&gt;60%</td>
</tr>
<tr>
<td>DISODIUM OCTABORATE TETRAHYDRATE</td>
<td>12008-41-2</td>
<td>234-541-0</td>
<td>10 to 30%</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>&lt;30%</td>
</tr>
<tr>
<td>BENZALKONIUM CHLORIDE</td>
<td>8001-54-5</td>
<td>616-786-9</td>
<td>1 to 10%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of 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).
- **First aid facilities**
  No information provided.

4.2 Most important symptoms and effects, both acute and delayed
See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed
Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
Water, foam, carbon dioxide, or dry chemical. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Combustible. May evolve carbon oxides and hydrocarbons when heated to decomposition.

5.3 Advice for firefighters
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.

5.4 Hazchem code
None allocated.
6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe 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 areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (particulate)</td>
<td>SWA (AUS)</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene glycol (vapour)</td>
<td>SWA (AUS)</td>
<td>20</td>
<td>52</td>
<td>40</td>
<td>104</td>
</tr>
</tbody>
</table>

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls: Avoid inhalation. Use in well ventilated areas.

PPE
- Eye / Face: Wear splash-proof goggles.
- Hands: Wear PVC or rubber gloves.
- Body: When using large quantities or where heavy contamination is likely, wear coveralls.
- Respiratory: Not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>CLEAR COLOURLESS LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>SLIGHT ODOUR</td>
</tr>
</tbody>
</table>
9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>CLASS C1 COMBUSTIBLE</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 110°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 197°C</td>
</tr>
<tr>
<td>Melting point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>6.3</td>
</tr>
<tr>
<td>Vapour density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.232</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>SOLUBLE</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>3.2 %</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>&gt; 400°C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>NOT AVAILABLE</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Hazardous polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), fluorine, alkaloidal and metallic salts. Further incompatibilities include: dimethyl terephthalate and titanium butoxide, perchloric acid (violently), mixtures with ammonium dichromate, sodium chlorite, silver chloride and uranyl nitrate ignite when heated to 100°C. Aqueous solutions may ignite silvered copper wires which have an applied D.C. voltage.

10.6 Hazardous decomposition products
May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Information available for the product:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Harmful if swallowed.</td>
</tr>
</tbody>
</table>

Information available for the ingredient(s):

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral Toxicity (LD50)</th>
<th>Dermal Toxicity (LD50)</th>
<th>Inhalation Toxicity (LC50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>1670 mg/kg (cat); &gt;</td>
<td>9530 mg/kg (rabbit)</td>
<td>10876 mg/kg (rat)</td>
</tr>
<tr>
<td>DISODIUM OCTABORATE TETRAHYDRATE</td>
<td>2 g/kg (rat)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>BENZALKONIUM CHLORIDE</td>
<td>240 mg/kg (rat)</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Skin
Contact may result in irritation, redness, pain and rash.

Eye
Contact may result in irritation, lacrimation, pain and redness.

Sensitisation
Not classified as causing skin or respiratory sensitisation.

Mutagenicity
Not classified as a mutagen.

Carcinogenicity
Not classified as a carcinogen.
PRODUCT NAME  BORACOL 200 RH FUNGICIDE

Reproductive May damage fertility or the unborn child. Animal studies have shown that exposure to high concentrations of borates may effect the developing fetus and the testes.

STOT – single exposure Not classified as causing organ damage from single exposure.

STOT – repeated exposure Repeated exposure to borates may result in skin rash, bronchitis and kidney damage.

Aspiration Not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Other adverse effects
Boron is an essential micronutrient for healthy growth of plants, however, it can be harmful to boron sensitive plants at higher concentrations. The desired level of boron in saturated soil is between 0.15ppm and 0.5ppm. Care should be taken to minimise the amount of boron product released to the environment. Calcium may precipitate out some of the boron, but this process will not significantly reduce toxicity to plants.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required).

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

<table>
<thead>
<tr>
<th></th>
<th>LAND TRANSPORT (ADG)</th>
<th>SEA TRANSPORT (IMDG / IMO)</th>
<th>AIR TRANSPORT (IATA / ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN Number</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.3 Transport Hazard Class</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards No information provided

14.6 Special precautions for user
Hazchem code None Allocated

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Poison schedule Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
PRODUCT NAME: BORACOL 200 RH FUNGICIDE

Classifications
Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard codes
- Repr. Reproductive toxin
- Xi Irritant
- Xn Harmful

Risk phrases
- R22 Harmful if swallowed.
- R36/38 Irritating to eyes and skin.
- R60 May impair fertility.
- R61 May cause harm to the unborn child.

Safety phrases
- S2 Keep out of reach of children.
- S24/25 Avoid contact with skin and eyes.
- S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
- S53 Avoid exposure - obtain special instructions before use.

Inventory listing(s)
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information
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.

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.

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.
Abbreviations

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
EMS      Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS      Globally Harmonized System
GTEPG    Group Text Emergency Procedure Guide
IARC     International Agency for Research on Cancer
LC50     Lethal Concentration, 50% / Median Lethal Concentration
LD50     Lethal Dose, 50% / Median Lethal Dose
mg/m³    Milligrams per Cubic Metre
OEL      Occupational Exposure Limit
pH       relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm      Parts Per Million
STEL     Short-Term Exposure Limit
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
SWA      Safe Work Australia
TLV      Threshold Limit Value
TWA      Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ("SDS").

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier 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, importer or supplier.

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 ]