

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name

BORACOL 200 RH FUNGICIDE

Synonyms 200 RH BORACOL • BORACOL 200 RH

1.2 Uses and uses advised against

Uses ALGAE CONTROL • FUNGICIDE • INSECTICIDE • PRESERVATIVE

1.3 Details of the supplier of the product

Supplier name	KOPPERS PERFORMANCE CHEMICALS AUSTRALIA PTY LTD
Address	Cafpirco 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 numbers

Emergency 1800 088 809

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Not classified as a Physical Hazard

Health Hazards

Acute Toxicity: Oral: Category 4 Skin Corrosion/Irritation: Category 2 Serious Eye Damage / Eye Irritation: Category 2A Toxic to Reproduction: Category 1B

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word	DANGER	
Pictograms		

Hazard statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.

ChemAlert.

Prevention statements	i de la constante d
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 statements	
P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment is advised - see first aid instructions.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
Storage statements	
P405	Store locked up.
Disposal statements	
P501	Dispose of contents/container in accordance with relevant regulations.
2.3 Other hazarde	

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
ETHYLENE GLYCOL (1,2-ETHANEDIOL)	107-21-1	203-473-3	>60%
SODIUM BORATE	12008-41-2	234-541-0	10 to 30%
QUATERNARY AMMONIUM COMPOUNDS, ALKYLBENZYLDIMETHYL, CHLORIDES	8001-54-5	616-786-9	1 to 10%
WATER	7732-18-5	231-791-2	<30%

4. FIRST AID MEASURES

4.1 Description of first aid measures

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Еуе	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 Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).
First aid facilities	Eye wash facilities and safety shower should be available.

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.

ChemAlert.

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 uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
Ingredient	Kelefence	ppm	mg/m³	ppm	mg/m³
Borate compounds	SWA [Proposed]		0.75		
Ethylene glycol (particulate)	SWA [AUS]		10		
Ethylene glycol (vapour)	SWA [AUS]	20	52	40	104

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 / FaceWear splash-proof goggles.HandsWear PVC or rubber gloves.BodyWhen using large quantities or where heavy contamination is likely, wear coveralls.RespiratoryNot required under normal conditions of use.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

information on busic physical a	na chemical properties
Appearance	CLEAR COLOURLESS LIQUID
Odour	SLIGHT ODOUR
Flammability	CLASS C2 COMBUSTIBLE
Flash point	> 110°C
Boiling point	> 197°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
рН	6.3
Vapour density	NOT AVAILABLE
Relative density	1.232
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT AVAILABLE
Lower explosion limit	3.2 %
Partition coefficient	NOT AVAILABLE
Autoignition temperature	> 400°C
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

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 polymerisation 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 chlorate 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

Acute toxicity Harmful if swallowed.

Information available for the ingredients:

Ingredient		Oral LD50	Dermal LD50	Inhalation LC50
ETHYLENE GLYCOL (1,2-ETHANEDIOL)		1670 mg/kg (cat); > 2000 mg/kg (rat)	9530 mg/kg (rabbit)	10876 mg/kg (rat)
SODIUM BORATE		2 g/kg (rat)		
	QUATERNARY AMMONIUM COMPOUNDS, ALKYLBENZYLDIMETHYL, CHLORIDES			
Skin	Contact may result in irritation	n, 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.			
Reproductive	May damage fertility or the unborn child. Animal studies have shown that exposure to high concentrations of borates may affect 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 disposalFor 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



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None allocated.	None allocated.	None allocated.
14.2 Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3 Transport hazard class	None allocated.	None allocated.	None allocated.
14.4 Packing Group	None allocated.	None allocated.	None allocated.

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).

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

Inventory listings AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals) All components are listed on AIIC, 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 form of product, 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: form of product; 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 CAS # CNS EC No. EMS	American Conference of Governmental Industrial Hygienists Chemical Abstract Service number - used to uniquely identify chemical compounds Central Nervous System EC No - European Community Number Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)		
	GHS GTEPG IARC LC50 LD50 mg/m ³ OEL pH STEL STOT-RE STOT-RE STOT-SE SUSMP SWA TLV TWA	Globally Harmonized System Group Text Emergency Procedure Guide International Agency for Research on Cancer Lethal Concentration, 50% / Median Lethal Concentration Lethal Dose, 50% / Median Lethal Dose Milligrams per Cubic Metre Occupational Exposure Limit relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). Parts Per Million Short-Term Exposure Limit Specific target organ toxicity (repeated exposure) Specific target organ toxicity (single exposure) Standard for the Uniform Scheduling of Medicines and Poisons Safe Work Australia Threshold Limit Value Time Weighted Average		
Report status		It has been compiled by RMT on behalf of the manufacturer, importer or supplier of the erves as their Safety Data Sheet ('SDS').		
	It is based of manufacturer, the current sta at the time of	on information concerning the product which has been provided to RMT by the importer or supplier or obtained from third party sources and is believed to represent ate of knowledge as to the appropriate safety and handling precautions for the product f issue. Further clarification regarding any aspect of the product should be obtained he manufacturer, importer or supplier.		
	not provide an no liability for	as taken all due care to include accurate and up-to-date information in this SDS, it does by warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts any loss, injury or damage (including consequential loss) which may be suffered or by person as a consequence of their reliance on the information contained in this SDS.		
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