SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Trade name: Antracol® Fungicide Spray
Product code (UVP): 04479696

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use: Fungicide

1.3 Details of the supplier of the safety data sheet
Supplier: Bayer Cropscience Pty Ltd
ABN 87 000 226 022
Level 1, 8 Redfern Road
3123 Hawthorn East
Victoria
Australia
Telephone: (03) 9248 6888
Telefax: (03) 9248 6800
Responsible Department: 1800 804 479 Technical Information Service
Website: www.crop.bayer.com.au

1.4 Emergency telephone no.
Emergency telephone no.: 1800 033 111 IXOM Operations Pty Ltd

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification in accordance with Australian GHS Regulation
Skin sensitisation: Category 1
H317 May cause an allergic skin reaction.
Specific target organ toxicity - repeated exposure: Category 2
H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.
Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.
Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements
Hazard label for supply/use required.
Hazardous components which must be listed on the label:
Propineb

Signal word: Warning

Hazard statements

H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.

Precautionary statements

P260 Do not breathe dust or mist.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of water/ soap.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P314 Get medical advice/ attention if you feel unwell.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

May form explosive dust-air mixture if dispersed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Propineb 700g/kg
Wettable powder (WP)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propineb</td>
<td>9016-72-2</td>
<td>70.00</td>
</tr>
<tr>
<td>Other ingredients (non-hazardous) to 100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

4.1 Description of first aid measures

General advice

Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact  Rinse immediately with plenty of water, also under the eyelids, for at
least 15 minutes. Remove contact lenses, if present, after the first 5
minutes, then continue rinsing eye. Get medical attention if irritation
develops and persists.

Ingestion  Do NOT induce vomiting. Call a physician or poison control center
immediately. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms  Symptoms reinforced by alcohol (Antabuse effect)

4.3 Indication of any immediate medical attention and special treatment needed

Risks  This product is not a cholinesterase inhibitor.

Treatment  Treat symptomatically. In case of ingestion gastric lavage should be
considered in cases of significant ingestions only within the first 2
hours. However, the application of activated charcoal and sodium
sulphate is always advisable. Contraindication: atropine. There is no
specific antidote. Follow-up measures: Strict abstinence from alcohol
for 1 to 2 weeks, due to antabuse effect.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable  Use water spray, alcohol-resistant foam, dry chemical or carbon
dioxide.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released:, Hydrogen cyanide
(hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx),
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters  In the event of fire and/or explosion do not breathe fumes. In the event
of fire, wear self-contained breathing apparatus.

Further information  Contain the spread of the fire-fighting media. Do not allow run-off from
fire fighting to enter drains or water courses.

Hazchem Code  2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions  Avoid contact with spilled product or contaminated surfaces. Use
personal protective equipment. Avoid dust formation.

6.2 Environmental precautions  Do not allow to get into surface water, drains and ground water.
6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal. Avoid dust formation.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation.

Advice on protection against fire and explosion: Dust may form explosive mixture in air. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

Hygiene measures: Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only.

Advice on common storage: Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propineb</td>
<td>9016-72-2</td>
<td>0.2 mg/m³ (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Respiratory protection: Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet. 

- **Material**: Nitrile rubber
- **Rate of permeability**: > 480 min
- **Glove thickness**: > 0.4 mm
- **Protective index**: Class 6
- **Directive**: Protective gloves complying with EN 374.

Eye protection
Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection
Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

General protective measures
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls
Advice on safe handling
Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Form**: powder
- **Colour**: beige
- **Odour**: weak, characteristic
- **Odour Threshold**: No data available
- **pH**: 4.0 - 8.0 (1 %) (23 °C) (deionized water)
- **Melting point/range**: ca. 135 °C
- **Boiling Point**: No data available
- **Flash point**: No data available
- **Flammability**: The product is not highly flammable.
- **Auto-ignition temperature**: No data available
- **Ignition temperature**: The product is not self-ignitable.
Minimum ignition energy  > 10 mJ
MIE Cluster evaluated acc. to BTS report 2016/00141a

Self-accelerating decomposition temperature (SADT)  No data available

Upper explosion limit  No data available
Lower explosion limit  No data available
Dust explosion class  capable of causing a dust explosion (modified Hartmann tube, ignition with continuous spark generator)
Vapour pressure  No data available
Evaporation rate  No data available
Relative vapour density  No data available
Relative density  No data available
Density  No data available
Water solubility  dispersible
Partition coefficient: n-octanol/water  Propineb: log Pow: < 3
Viscosity, kinematic  No data available
Impact sensitivity  Not impact sensitive.
Burning number  CN3 Local combustion without spreading
Oxidizing properties  No data available
Explosivity  Not explosive
92/69/EEC, A.14 / OECD 113

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Thermal decomposition  Stable under normal conditions.
Self heating  not self-heating

10.2 Chemical stability  Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions  No hazardous reactions when stored and handled according to prescribed instructions.
10.4 Conditions to avoid
Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Strong acids, Strong bases, Strong oxidizing agents
Store only in the original container.

10.6 Hazardous
decomposition products
Thermal decomposition can lead to release of:
Hydrogen sulfide
Carbon disulphide

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity
LD50 (Rat) > 2,000 mg/kg

Acute inhalation toxicity
LC50 (Rat) ca. 5.040 mg/l
Determined in the form of a respirable fine dust.

Acute dermal toxicity
LD50 (Rat) > 5,000 mg/kg

Skin corrosion/irritation
No skin irritation (Rabbit)

Serious eye damage/eye irritation
No eye irritation (Rabbit)

Respiratory or skin sensitisation
Skin: Sensitising (Guinea pig)
OECD Test Guideline 406, Magnusson & Kligman test

Assessment mutagenicity
Propineb was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity
Propineb caused an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Assessment toxicity to reproduction
Propineb caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Propineb is related to parental toxicity.

Assessment developmental toxicity
Propineb did not cause developmental toxicity in rabbits. Propineb caused developmental toxicity in rats only at dose levels toxic to the dams. The developmental effects seen with Propineb are related to maternal toxicity.

Assessment STOT Specific target organ toxicity – single exposure
Propineb: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure
Propineb caused specific target organ toxicity in experimental animal studies in the following organ(s): Peripheral nervous system, Thyroid. Propineb caused Muscular weakness in animal studies. The observed effects do not appear to be relevant for humans.

Aspiration hazard
### Information on likely routes of exposure

Harmful if inhaled., May cause respiratory tract irritation.
May cause skin irritation., Skin sensitizer.
May cause eye irritation.
Harmful if swallowed., Use of alcoholic beverages may enhance toxic effects.

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11

### Exposure levels and health effects

Refer to Section 4

### Interactive effects

Not known

### When specific chemical data is not available

Not applicable

### Mixture of chemicals

Refer to Section 2.1

### Further information

No further toxicological information is available.

### SECTION 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

<table>
<thead>
<tr>
<th>Toxicity to fish</th>
<th>LC50 (Oncorhynchus mykiss (rainbow trout))</th>
<th>0.4 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 96 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient propineb.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to aquatic invertebrates</th>
<th>EC50 (Daphnia magna (Water flea))</th>
<th>1.5 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 48 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient propineb.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic toxicity to aquatic invertebrates</th>
<th>EC10 (Chironomus riparius (non-biting midge))</th>
<th>0.869 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 28 d</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOEC (Daphnia magna (Water flea))</td>
<td>0.480 mg/l</td>
</tr>
<tr>
<td></td>
<td>Exposure time: 21 d</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient propineb.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to aquatic plants</th>
<th>ErC50 (Raphidocelis subcapitata (freshwater green alga))</th>
<th>0.022 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth rate; Exposure time: 72 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient propineb.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>NOEC (Raphidocelis subcapitata (freshwater green alga))</th>
<th>0.009 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth rate; Exposure time: 72 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient propineb.</td>
<td></td>
</tr>
</tbody>
</table>
Toxicity to other organisms  LD50 (Coturnix japonica (Japanese quail)) > 5,000 mg/kg  
Test conducted with a similar formulation.

12.2 Persistence and degradability
Biodegradability  Propineb: rapidly biodegradable
Koc  Propineb: Koc: 18

12.3 Bioaccumulative potential
Bioaccumulation  Propineb: Does not bioaccumulate.

12.4 Mobility in soil
Mobility in soil  Propineb: Mobile in soils

12.5 Other adverse effects
Additional ecological information  No other effects to be mentioned.

SECTION 13. DISPOSAL CONSIDERATIONS

Plastic and foil bags:  Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site.  
Puncture and bury empty bags in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt.

SECTION 14. TRANSPORT INFORMATION

ADG
UN number 3077
Transport hazard class(es) 9
Subsidiary Risk None
Packaging group III
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPINEB MIXTURE)
Hazchem Code 2Z

AU01: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;
a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or  
b) IBCs

IMDG
UN number 3077
Transport hazard class(es) 9
Subsidiary Risk None
Packaging group III
Marine pollutant YES
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPINEB MIXTURE)

IATA

- UN number: 3077
- Transport hazard class(es): 9
- Subsidiary Risk: None
- Packaging group: III
- Environm. Hazardous Mark: YES
- Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPINEB MIXTURE)

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 30613

SUSMP classification (Poison Schedule)

Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 16. OTHER INFORMATION

Trademark information: Antracol® is a Registered Trademark of the Bayer Group.

Abbreviations and acronyms:

- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute toxicity estimate
- AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
- CAS-Nr.: Chemical Abstracts Service number
- CEILING: Ceiling Limit Value
- Conc.: Concentration
- EC-No.: European community number
- ECx: Effective concentration to x %
- EINECS: European inventory of existing commercial substances
- ELINCS: European list of notified chemical substances
- EN: European Standard
- EU: European Union
- IATA: International Air Transport Association
- ICx: Inhibition concentration to x %
- IMDG: International Maritime Dangerous Goods
- LCx: Lethal concentration to x %
- LDx: Lethal dose to x %
Safety Data Sheet

Antracol® Fungicide Spray

Version 4 / AUS

Revision Date: 11.03.2020
Print Date: 12.03.2020

102000007039

LOEC/LOEL  Lowest observed effect concentration/level
MARPOL  MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.  Not otherwise specified
NOEC/NOEL  No observed effect concentration/level
OECD  Organization for Economic Co-operation and Development
OES BCS  OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"
PEAK  PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID  Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN  Skin sensitiser
SKIN_DES  SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL  STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA  TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
TWA  Time weighted average
UN  United Nations
WHO  World health organisation

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 12. Ecological information.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.