

MATERIAL SAFETY DATA SHEET

Chipco® Rovral® GT Fungicide

Date of Issue: May 1st, 2007

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Chipco® Rovral® GT Fungicide
Other names: None
Product code: 4284630
Recommended use: Fungicide for use in professionally managed turf.
Supplier: Bayer Environmental Science – A Business Group of Bayer CropScience Pty Ltd
ABN 87 000 226 022
Address: 391 - 393 Tooronga Road, East Hawthorn
Victoria 3123, Australia
Telephone: (03) 9248 6888
Facsimile: (03) 9248 6800
Website: www.bayercropscience.com.au
Contact: Technical Manager (03) 9248 6888
Emergency Telephone Number: 1800 033 111 – Orica SH&E Shared Services

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE - NON-DANGEROUS GOOD

Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact.

Hazard designation: Hazardous according to criteria of Worksafe Australia
Risk phrases: R40 – Limited evidence of a carcinogenic effect
R43 – May cause sensitisation by skin contact
Safety phrases: See Sections 4, 5, 6, 7, 8, 9, 13
ADG classification: Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Chipco Rovral GT Fungicide is a MARINE POLLUTANT. See Section 14.
SUSDP classification: Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/L):
Iprodione	[36734-19-7]	250
Hydrocarbon liquid	[64742-56-9]	336
Propylene glycol	[57-55-6]	50.5
1,2-Benzisothiazol-3(2H)-one	[2634-33-5]	0.7
Other ingredients	(non hazardous)	382

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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 Material Safety Data Sheet to a doctor.

Inhalation:	Remove victim to fresh air. Seek medical advice if symptoms are experienced.
Skin contact:	Remove contaminated clothing. Wash affected areas with plenty of soap and water. Seek medical advice if symptoms are experienced.
Eye contact:	Immediately irrigate with copious quantities of water for at least 15 minutes. Seek medical assistance as above.
Ingestion:	Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice as above. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.
First Aid Facilities:	Ensure washing facilities are available, including eye-washing facilities.
Symptoms:	Possible symptoms include nausea, vomiting, abdominal pain and loss of co-ordination. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.
Medical attention:	No specific antidote known. Treat symptoms after decontamination. As this product contains a hydrocarbon solvent care should be taken to prevent pulmonary aspiration.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Extinguish fire using: Waterspray, Carbon dioxide, Foam, Dry agent
Hazards from combustion products:	Toxic compounds of carbon, nitrogen and chlorine may be given off when exposed to extreme heat or fire.
Precautions for fire fighters:	Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1716). If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water.

6. ACCIDENTAL RELEASE MEASURES

Shut off or remove any sources of ignition. Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in 'Personal Protection' section above. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with absorbent material such as earth, sand or clay. Transfer collected material to drums. Seal and label them for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

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7. HANDLING AND STORAGE

- Handling:** Keep out of reach of children. Avoid contact with the eyes and skin.
- Storage:** Store in the closed original container in a cool, well-ventilated area, out of direct sunlight. Store in locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. Protect from frost.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Exposure standards:** The exposure standard assigned by the National Occupational Health and Safety Commission (Worksafe Australia) for the hydrocarbon solvent (oil mists) is - TWA (8 hour) 5 mg/m³. The Permissible Exposure limit for iprodione set by Bayer CropScience in manufacturing/formulation plants is 2 mg/m³.
- Engineering controls:** Control process conditions to avoid contact. Use local exhaust ventilation during manufacture. Use in a well-ventilated area only.
- Personal Protective Equipment:** To avoid eye and skin contact the following personal protective clothing and equipment is recommended:
Eyes: Safety goggles or face shield
Clothing: Cotton overalls buttoned to the neck and wrist and a washable hat.
Gloves: Elbow length PVC gloves
Respiratory: If airborne concentrations are likely to exceed the exposure standards above, an AS/NZS 1715/1716 approved respirator should be worn.
Other: If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** A viscous, white, emulsion
- Odour:** Negligible
- Vapour pressure:** 5×10^{-7} Pa at 25°C
- Vapour density:** Not available
- Boiling point:** Greater than 100°C
- Freezing/melting point:** Not available
- Solubility:** Miscible with water
- Density:** 1.018 at 20°C
- Molecular weight:** 330.2 (technical iprodione)
- pH:** 2.0 to 4.0
- Flash Point:** Non flammable
- Flammability (explosive) limits:** Not determined
- Auto-ignition temperature:** Not available
- Octanol/water partition coefficient:** *Iprodione*: Log P_{ow} = 3.0 (pH 3 and 5)
- Formulation:** Suspo-emulsion

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10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Hazardous polymerisation:	Not available
Conditions to avoid:	Extreme heat
Incompatible materials:	Avoid strong acids, bases, and strong oxidising agents. Incompatible with strong alkalis.
Hazardous decomposition products:	Toxic compounds of carbon, nitrogen and chlorine may be given off when exposed to extreme heat or fire.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation:	May irritate mucous membranes of nose and mouth.
Skin contact:	Dermal toxicity is low however skin contact should be avoided. Wash contaminated skin immediately.
Eye contact:	May be an eye irritant.
Ingestion:	Product toxicity is low but may be harmful if a large amount is swallowed.

ANIMAL TOXICITY DATA – PRODUCT: No data available for the product.

ANIMAL TOXICITY DATA – INDIVIDUAL INGREDIENTS:

Acute:

Oral toxicity:	LD ₅₀ >2000 mg/kg (iprodione)
Dermal toxicity:	LD ₅₀ rat: > 20 00 mg/kg (iprodione)
Inhalation toxicity:	LC ₅₀ (4h): >5.16 mg/L air (iprodione)
Skin irritation:	Not irritating – rabbit (iprodione)
Eye irritation:	Slightly irritating – rabbit (iprodione)
Sensitisation:	Not sensitising - guinea pig (iprodione)

Chronic:

Lifetime feeding studies in rodents have shown an increased incidence of tumors in animals treated at the maximum tolerated dose. Iprodione has been classified as a Category 3 carcinogen according to the EU classification. The no observable effect level listed by the Therapeutic Goods Administration for iprodione is 4 mg/kg bw/day. Iprodione was not mutagenic in the Ames assay.

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12. ECOLOGICAL INFORMATION

DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Very toxic to aquatic organisms.

Fish toxicity: Technical iprodione:
LC₅₀ (96 hr): 4.1 mg/L rainbow trout
LC₅₀ (96 hr): 3.7 mg/L bluegill sunfish

Daphnia toxicity: Technical iprodione:
EC₅₀ (48 hr): 0.25 mg/L

Toxicity to algae: Technical iprodione:
IC₅₀ (72 hr): 15.3 mg/L

Bird toxicity: Technical iprodione:
Acute oral LD₅₀: > 2,000 mg/kg bobwhite quail
Acute oral LD₅₀: 10,400 mg/kg mallard ducks

Bee toxicity: Low hazard to bees

Other: Low hazard to earthworms and other beneficial insects.

Special precautions / comments: Note L in the List of Hazardous Substances (NOHSC) applies. The hydrocarbon solvent contains less than 3% DMSO extract and therefore the R45 classification is not applicable.

Environmental fate, persistence and degradation: Iprodione is rapidly metabolised in soil.

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury empty containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt. Returnable containers should be taken back to point of supply for refill or storage. Dispose of waste product through a reputable waste contractor.

14. TRANSPORT INFORMATION

UN number: Not applicable

Proper shipping name: Not applicable

Class and Subsidiary Risk: Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Packing Group: Not applicable

EPG: Not applicable

Hazchem code: Not applicable

Marine pollutant: Yes – If this product is shipped by sea it is a Class 9 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains iprodione), UN 3082, Packing Group III.

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15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority Approval Number: 50954

16. OTHER INFORMATION

Trademark information: Chipco® and Rovral® are Registered Trademarks of Bayer

Preparation information: Replaces September 10, 2003 edition.
Reason for update: Risk phrases, Formulation composition, Toxicity data, Marine pollutant status.

Data sources: Bayer CropScience Pty Ltd product safety data and published data

This MSDS 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 MSDS 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.

END OF MSDS