

MATERIAL SAFETY DATA SHEET

3Sixty5 Turf Fungicide

Date of Issue: August 25th, 2006

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: 3Sixty5 Turf Fungicide
Other names: None
Product code: 5851938 (5 L)
Chemical group: Dicarboximide
Recommended use: For use as a fungicide in professionally managed turf.
Formulation: Suspoemulsion
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 carcinogenic effect.

Hazard designation: Hazardous (National Occupational Health and Safety Commission - NOHSC)
Risk phrases: R40 – Limited evidence of a carcinogenic effect
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, 3Sixty5 Turf Fungicide is a MARINE POLLUTANT. See Section 14.
SUSDP classification: Exempt

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/L):
Iprodione	[36734-19-7]	365
Propylene glycol	[57-55-6]	50.6
Other ingredients	(non hazardous)	~ 800

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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 and keep at rest. Seek medical advice if symptoms are experienced.
- Skin contact:** Carefully remove contaminated clothing. Wash affected areas with plenty of soap and water. Seek medical aid 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-wash.
- Symptoms:** Symptoms include nausea, vomiting, abdominal pain and loss of co-ordination.
- Medical attention:** No specific antidote known. Treat symptoms after decontamination.

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 1715/1716). 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. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.

6. ACCIDENTAL RELEASE MEASURES

Dealing with spills and disposals may result in the potential for increased personal exposure. Protective clothing and equipment as described in the PERSONAL PROTECTION section should be worn. Avoid contact with spilled material or contaminated surfaces. Contain spill and absorb with earth, sand, clay, or other absorbent material. Sweep up and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. Keep people away. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority. Neutralising chemicals are not needed.

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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. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, animal feed, seed and fertilisers. Protect from frost.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Exposure standards:** No exposure standard has been assigned by the National Occupational Health and Safety Commission (Worksafe Australia) for the product or its ingredients. 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, wearing the following personal protective clothing and equipment is recommended:
- | | |
|--------------|---|
| Eyes: | Safety goggles or face shield |
| Clothing: | Chemical resistant disposable overalls and PVC boots |
| Gloves: | Chemical resistant PVC or nitrile gloves |
| Respiratory: | Respiratory protection not normally required.
If airborne concentrations are likely to exceed the exposure standard 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 to off-white suspension
- Odour:** Negligible odour
- Vapour pressure:** 5 x 10⁻⁷ Pa at 25°C
- Vapour density:** Not available
- Boiling point:** Greater than 100°C
- Freezing/melting point:** Not available
- Solubility:** Forms a suspension in water
- Density:** 1.124 at 25°C
- Molecular weight:** 330.2 (technical iprodione)
- pH:** 5.5 to 6.0
- Flash Point:** Not flammable
- Flammability (explosive) limits:** Not determined
- Auto-ignition temperature:** Not available
- Octanol/water partition coefficient:** Not available
- Formulation:** Suspo-emulsion

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10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Hazardous polymerisation:	No information 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:	The dermal toxicity of this product is low, however skin contact should be avoided.
Eye contact:	May irritate the eyes.
Ingestion:	Product toxicity is low but may be harmful if a large amount is swallowed. Symptoms include nausea, vomiting, abdominal pain and loss of co-ordination.
Other:	None

ANIMAL TOXICITY DATA – PRODUCT:

Acute:

Oral toxicity:	LD ₅₀ rat: >5000 mg/kg (Female rat)
Dermal toxicity:	LD ₅₀ rat: > 4000 mg/kg (male and female rat)
Inhalation toxicity:	LC ₅₀ >1776 mg/m ³
Skin irritation:	Not irritating – rabbit
Eye irritation:	Slightly irritating – rabbit
Sensitisation:	Not sensitising - guinea pig

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.

Fish toxicity:	Technical iprodione: LC ₅₀ (96 hr): 4.1 mg/L rainbow trout LC ₅₀ (96 hr): 3.7 mg/L bluegill sunfish
Daphnia toxicity:	Technical iprodione: EC ₅₀ (48 hr): 0.25 mg/L
Toxicity to algae:	Technical iprodione: IC ₅₀ (72 hr) 15.3 mg/L
Bird toxicity:	Technical iprodione: Acute oral LD ₅₀ : > 2,000 mg/kg bobwhite quail Acute oral LD ₅₀ : 10,400 mg/kg mallard duck
Bee toxicity:	Technical iprodione: Low hazard to bees
Other:	Very toxic to aquatic organisms. Low hazard to earthworms and other beneficial insects.
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 (road/rail)
Proper shipping name:	Not applicable (road/rail)
Class and Subsidiary Risk:	Not applicable (road/rail)
Packing Group:	Not applicable (road/rail)
EPG:	Not applicable (road/rail)
Hazchem code:	Not applicable (road/rail)
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: 59278

16. OTHER INFORMATION

Trademark information:

Preparation information: Replaces April 24th, 2006 MSDS.
Reasons for revision: Composition amendment, ADG Classification, Transport Information – Marine Pollutant.

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