

# SAFETY DATA SHEET



## ROVRAL Aquaflo®

Date of Issue: February 2014

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

**Chemical name of active ingredient(s):** Iprodione  
**Recommended use:** Broad spectrum fungicide

**Supplier:** Etec Crop Solutions Ltd  
PO Box 51584  
Pakuranga 2140  
Auckland

**Emergency telephone number:** 0800 Poison (0800 764 766) 24 Hours

### 2. HAZARDS IDENTIFICATION

**Hazard Classification:** HSNO classification 6.9B, 9.1A  
**Required identification Details:** May be harmful if swallowed, inhaled or absorbed through the skin.  
Harmful – may cause sensitization from prolonged skin contact.  
Toxic to aquatic organisms – must not be applied directly onto or into water.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Iprodione	36734-19-7	50.0%
Other (including water)		655 g/L

### 4. FIRST-AID MEASURES

#### Description of necessary first aid measures:

In case of poisoning by any exposure route, contact the National Poisons and Hazardous Chemicals Information Centre, PO Box 913, Dunedin. Phone 0800 764 766, 0800 POISON.

Avoid contact with skin and eyes and inhalation of concentration or spray mist.

When mixing or applying, wear protective clothing such as impervious gloves, waterproof hat, coat and trousers. If clothing becomes contaminated with product, remove clothing immediately. DO NOT eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing after work.

#### Effects and symptoms

##### First-aid measures

##### **Inhalation:**

Move person to fresh air and keep at rest until recovered. Obtain medical advice if concerned.

##### **Ingestion:**

Wash out mouth with water. DO NOT induce vomiting. Keep patient at rest and seek medical advice as above.

##### **Skin contact:**

If skin contact occurs, remove contaminated clothing and wash affected areas thoroughly with soap and water. Obtain medical advice if concerned.

<b>Eye contact:</b>	If product gets in eyes wash it out immediately with clean Water (also under the eyelids) for at least 15 minutes. Obtain Medical advice.
<b>Notes to a physician:</b>	
<b>Workplace facilities:</b>	Ensure washing facilities are available. Standard emergency equipment must be available.
<b>Required Instructions:</b>	
<b>Medical attention:</b>	<p><u>Symptoms:</u>  <i>Local</i> – may irritate eyes and respiratory tract.  <i>Systemic</i> – Nausea, vomiting, abdominal pain, loss of co-ordination may occur if swallowed.</p> <p><u>Treatment:</u>  <i>Local:</i> Treat as above under First Aid.</p> <p><u>Note for Physicians:</u>  <i>Systemic:</i> As there is no antidote, treatment should be symptomatic and Supportive. For large ingestions, gastric lavage and administration of activated charcoal and sodium sulphate should be considered. Monitor kidney and respiratory functions.</p>

## 5. FIRE-FIGHTING MEASURES

<b>HAZCHEM Code:</b>	3Z
<b>Extinguishing media :</b>	Water spray, carbon dioxide, foam, dry chemical
<b>Hazardous thermal (de)composition products:</b>	In a fire, irritant and toxic fumes containing oxides of carbon and nitrogen, and hydrogen chloride may be released.
<b>Protection of fire-fighters:</b>	The product itself is non-flammable. Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise spray unopened containers with water to keep cool. Bund the area with soil or earth to prevent contamination of drains or waterways. Dispose of extinguishing and spillage safely later.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	<b>Emergency Procedures:</b> Keep people and animals away. Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls. Avoid contact with spilled material or contaminated surfaces. Do not eat, drink or smoke during the clean-up process.
<b>Environmental precautions:</b>	Washing must be prevented from entering surface water drains or waterways. If contamination occurs, warn the local authority. Do not discharge into drains/surface water/ground water.

Deal with all spillages immediately. Contain spill and absorb with earth, sand, clay or another absorbent material. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place cloth in drum. Cover and label drums for safe disposal.

- a) Triple rinse or, preferably, pressure rinse containers with water. Add rinseate to the spray tank. DO NOT dispose of undiluted chemicals on site.
- b) Submit clean empty container for recycling through Agrecovery™. If this is not possible, burn if permitted and circumstances, especially wind direction, allow otherwise bury in landfill.
- c) Product or unused spray mix should be disposed off according to label instructions.

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## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with skin and eyes and inhalation of concentrate or spray mist. When using, DO NOT eat, drink or smoke. Wear suitable protective clothing such as impervious gloves, waterproof hat, coat and trousers. If clothing becomes contaminated with product, remove clothing immediately. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing after work.
<b>Storage:</b>	Store in a cool, dry, well ventilated place and protect from sunlight. Do not store for prolonged periods in direct sunlight. Protect from frost.
<b>Packaging materials:</b>	Store in original container. Tightly closed, away from foodstuffs.
<b>Flammability:</b>	This product is not flammable or combustible.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation specification:** Use in well ventilated areas.

### **Personal Protective Equipment**

#### **Detail specifications for equipment:**

**Respiratory system:** Where insufficient ventilation or inhalation is likely, use suitable respiratory protection.

**Skin and body:** Cotton overalls buttoned to the neck and wrist and a washable hat.

**Hands:** Wear suitable elbow-length protective gloves (eg. Polyvinyl chloride – PVC). After contamination with product, change the gloves immediately.

**Eyes:** Chemical goggles/face protection.

**General hygiene:** Avoid inhaling aerosols and vapours. Avoid contact with eyes and skin. Store work clothes and street clothes separately.

Wash hands before breaks and after work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Viscous suspension.
<b>Colour:</b>	White
<b>Odour:</b>	Weak, characteristic
<b>pH:</b>	4.0 to 6.0 (undiluted at 23°C)
<b>Vapour Pressure:</b>	Not available
<b>Vapour Density:</b>	Not available
<b>Boiling Point:</b>	>100°C
<b>Freezing/melting point:</b>	Not available
<b>Solubility:</b>	Forms a suspension in water
<b>Specific gravity or density:</b>	1.155g/ml at 20°C
<b>Information for flammable material including:</b>	
- Lower and upper flammability limits	
- Flashpoint (state test Method)	Not flammable
<b>Auto – ignition Temperature:</b>	Not available
<b>Octanol/water partition coefficient:</b>	
<b>Explosion properties:</b>	
<b>Oxidation properties:</b>	

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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions but may be unstable in conditions where the pH is 7 or higher.
<b>Conditions to avoid:</b>	Avoid extreme heat
<b>Materials to avoid:</b>	Avoid strong acids, strong alkalis and strong oxidising agents
<b>Hazardous decomposition Products:</b>	Hydrogen chloride and oxides of carbon and nitrogen may be given off when exposed to extreme heat or fire.
<b>Hazardous polymerization:</b>	
<b>Specific Data:</b>	
<b>Hazardous reactions :</b>	none

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## 11. TOXICOLOGICAL INFORMATION

<b>Inhalation:</b>	May irritate mucous membranes of nose and mouth.
<b>Skin contact:</b>	The dermal toxicity of this product is low. However skin contact should be avoided. May cause irritation to skin.
<b>Eye contact:</b>	May irritate the eyes.

<b>Ingestion:</b>	Product toxicity is low but may be harmful if a large amount is swallowed.
<b>Acute toxicity – Oral :</b>	LD <sub>50</sub> : rat > 2000 mg/kg
<b>Acute toxicity - Dermal :</b>	LD <sub>50</sub> : rat > 2000 mg/kg
<b>Acute toxicity – Inhalation:</b>	Not available. The inhalation toxicity of iprodione is low.
<b>Skin irritation :</b>	Non-irritant (rabbit)
<b>Eye irritation:</b>	Non-irritant (rabbit)
<b>Sensitization:</b>	Non sensitizing (guinea pig)
<b>Chronic:</b>	Lifetime feeding studies in rodents have shown an increased incidence of tumours in animals treated at the maximum tolerated dose. Iprodione has been classified as a Category 3 carcinogen by NOHSC. Iprodione was not mutagenic in the Ames assay.

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## 12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. It has a low hazard to birds, earthworms, bees and other beneficial insects. DO NOT contaminate streams, rivers or waterways with product or used containers.

### Ecotoxicity - Iprodione

<b>Fish</b>	LC <sub>50</sub> : (96 h) 4.1 mg/L Rainbow trout LC <sub>50</sub> : (96 h) 3.7 mg/L Bluegill sunfish
<b>Daphnia magna</b>	EC <sub>50</sub> : (48 h) 0.25 mg/L ( <i>Daphnia magna</i> )
<b>Algae</b>	EC <sub>50</sub> : (72 h) 15.3 mg/L ( <i>Selenastrum capricornutum</i> )
<b>Birds</b>	LD <sub>50</sub> : >2,000 mg/kg bobtail quail LD <sub>50</sub> : >10,400 mg/kg mallard duck

### Environmental fate, persistence and degradability, mobility

Iprodione is rapidly metabolized in soil with formation of carbon dioxide. DT<sub>50</sub> (lab.) 20 – 80 days; (field) 919 days. K<sub>OC</sub> 202 – 543. Rate of degradation increases with successive treatments, hence accumulation does not occur.

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## 13. DISPOSAL CONSIDERATIONS

### Methods of disposal:

Dispose of this product only by using according to the label, or at an approved landfill or other approved facility. Do not dispose of undiluted chemicals on site.

### Container disposal:

Triple rinse the empty container and add rinsate to the spray tank. Submit clean empty container for recycling through Agrecovery. If this is not possible, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury container below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways. Empty containers and product should not be burnt.

Do not use the container for any other purpose.

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## 14. TRANSPORT INFORMATION

## International transport regulations

### International transport regulations:

<b>UN number:</b>	UN3082
<b>Land - Road/Railway</b>	UN3082 Environmentally Hazardous Substance, Liquid. N.O.S, (Iprodione solution) Class 9, Packing Group III, Hazchem 3Z
<b>Proper shipping name :</b>	Environmentally Hazardous Substance, Liquid. N.O.S, (Iprodione solution) Class 9, Packing Group III, Hazchem 3Z  Marine Pollutant for Marine Transport only.

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## 15. REGULATORY INFORMATION

<b>ACVM Registered Number:</b>	P8000
<b>HSNO Approval Code:</b>	HSR000623

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## 16. OTHER INFORMATION

### Additional information:

<i>Disclaimer</i>	<i>To the extent permitted by law, buyers and/or users of the goods accept that neither the manufacturer, Etec Crop Solutions Ltd as distributor, nor any other distributor have any liability or responsibility whatsoever for any loss, damage or injury whether in contract or tort, whether direct, indirect or consequential howsoever arising in connection with the supply of these goods.</i>
<i>Trademarks</i>	<i>Rovral is a registered trademark of FMC Corporation</i>