



## SAFETY DATA SHEET MIRAGE 450 EC Fungicide

### Section 1: Identification of the Substance and Supplier

**Product name:** MIRAGE 450 EC  
**Chemical name of active ingredient(s):** C15H16C13N3O2  
**Supplier:** ADAMA New Zealand Limited  
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand  
P.O. Box 1799, Nelson New Zealand.  
**Telephone:** +64 3 5438275 Fax: +64 3 543 8274  
**Emergency Telephone:** 0800 POISON (0800 764 766)

### Section 2: Hazards Identification

**Hazard Classifications:** 3.1C, 6.1D, 6.3A, 6.8B, 6.9B, 8.3A, 9.1A, 9.3C

**Most important hazards:** **FLAMMABLE**  
Warning – flammable liquid – keep away from naked flame

**TOXICITY**  
Warning –  
May be harmful if swallowed, inhaled or absorbed through the skin.  
May cause eye and skin irritation.  
May cause reproductive/development damage from repeated oral exposure.  
May cause organ damage from repeated oral exposure at high doses.  
This product is corrosive and may cause severe eye damage.

Avoid contact with skin and eyes and avoid inhalation of spray mist. Wash splashes of concentrate from skin immediately.

**ECOTOXICITY**  
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container.  
Very toxic in the soil environment.

### Section 3. Composition/Information on Ingredients

Substance/preparation	Preparation				
<u>Information on hazardous ingredients</u> *					
Common name	CAS No.	Value	EC Number	Symbol	R-Phrases
Prochloraz	067747-09-5	450 g/L	266-334-5	Xn,N	R22, R50-53
n-Butyl alcohol	000071-36-3	ca 4%	200-751-6	Xn,Xi	R10, 67,37/38-41
gamma-Butyrolactone	000096-48-0	ca 4%	-	Xn,Xi	R22, R36

- *Occupational Exposure Limit(s), if available, are listed in section 8*

### Section 4: First-Aid Measures

**Effects and symptoms:** Eye contact: Redness, tears

**First-aid measures:** Remove victim from area of exposure. Wash off remaining material with plenty of water.

**Inhalation:** Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.

**Ingestion:** Do not induce vomiting. Wash out mouth with plenty of water.  
Get medical attention. Never give anything by mouth to an unconscious person.

**Skin contact:** Remove contaminated clothing. Wash away remainder with water and soap.  
Consult a doctor in the event of any complaints.

**Eye contact:** Wash out with plenty of water with the eyelid held wide open for at least 15 minutes.  
If pain persists, consult an eye specialist..



## SAFETY DATA SHEET MIRAGE 450 EC Fungicide

**Notes to a physician:** No specific antidote known. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

### Section 5: Fire-Fighting Measures

**Extinguishing media**

**Suitable:** Water spray, foam, water fog.  
**Unusual fire/explosion hazards:**  
**Hazardous thermal (de)composition products:** Thermal decomposition generates: carbon dioxide, carbon monoxide, chlorides, nitrogen oxides.  
**Protection of fire-fighters:** Fight fires from protected location. Dike fire control water for later disposal. Self-contained breathing apparatus and total protection required in enclosed areas.

### Section 6: Accidental Release Measures

**Personal precautions:** Wear appropriate suitable protective clothing (see section 8)  
**Environmental precautions:** Dispose of this material and its container at a waste collection point in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.  
**Methods for cleaning up:** Absorb remainder in sand or other inert material. Dispose of in an authorised waste collecting point.

### Section 7: Handling and Storage

**Handling:** Do not breathe fumes. Avoid contact with skin and eyes.  
**Storage:** Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs. (<50°C)  
As a Class 9 Substance with Ecotoxicity Classifications storage of Mirage 450 Fungicide must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed as a means of meeting the secondary containment provisions of the HSNO Emergency Management Regulations.

**Packaging materials suitable:** Plastic containers

### Section 8: Exposure Controls/Personal Protection

**Engineering measures:** Ventilation required.  
**Hygiene measures:** When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

**Occupational Exposure Limits TLV**

**Common name:** Prochloraz  
Not Established

**Personal protective equipment:**

**Respiratory system:** During spraying wear suitable respiratory equipment  
**Skin and body:** Wear suitable protective clothing. Chemical resistant boots.  
**Hands:** Chemical resistant gloves.  
**Eyes:** Safety goggles or face shield.



## SAFETY DATA SHEET

### MIRAGE 450 EC Fungicide

#### Section 9: Physical and Chemical Properties

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Clear amber solution
<b>Odour:</b>	Characteristic
<b>Specific gravity:</b>	(H <sub>2</sub> O = 1) 1.13 – 1.14
<b>Molecular weight:</b>	376.7
<b>Melting Point [°C]:</b>	46-49
<b>Vapour pressure:</b>	4.5X (10) <sup>-5</sup> Pa at a temperature at 25 °C (pure)
<b>Solubility in water:</b>	Emulsifiable – Prochloraz 25 ppm at a temperature of 20 °C (pure)
<b>Flash point [°C]:</b>	66 (closed cup)
<b>Explosion limits:</b>	Not explosive
<b>Log P octanol:</b>	log Pow = 4.06

#### Section 10: Stability and Reactivity

<b>Physico-chemical Stability:</b>	Stable under normal conditions
<b>Materials to avoid:</b>	strong acids, strong bases
<b>Conditions to avoid:</b>	(sun) light, open place, sources of heat. Decomposes upon heating.
<b>Hazardous reactions :</b>	Hazardous polymerization will not occur
<b>Hazardous decomposition products:</b>	Thermal decomposition generates: carbon dioxide, carbon monoxide, nitrogen oxides, chlorides.

#### Section 11. Toxicological Information

##### Preparation

<b>Acute toxicity - Oral:</b>	LD <sub>50</sub> (rat)= > 2,000 mg/kg
<b>Acute toxicity - Dermal:</b>	LD <sub>50</sub> (rabbit) > 2,000 mg/kg
<b>Acute toxicity – Inhalation:</b>	LC <sub>50</sub> (rat) > 4.99 mg/L (4 hours)
<b>Skin irritation:</b>	Mildly irritating (rabbit).
<b>Eye irritation:</b>	Mildly irritating (rabbit).
<b>Sensitization :</b>	Non sensitizer (guinea-pig) Maximum test
<b>Carcinogenicity:</b>	Prochloraz: Not carcinogenic (rat)
<b>Mutagenicity:</b>	Prochloraz: Not mutagenic
<b>Reproduction toxicity:</b>	Prochloraz: Not teratogenic in animal experiments

#### Section 12: Ecological Information

<b>96 H-LC50 – Rainbow trout</b>	3.05 mg/l
<b>48 H-EC50 – Daphnia magna</b>	4.00 mg/l
<b>72 H-EbC50 – Algae</b>	1.42 mg/l
<b>72 h-Erc50 – Algae</b>	4.34 mg/l
<b>LD50 Birds [mg/l]</b>	Prochloraz Technical: >2000
<b>Bees LD50 {µ/Bee}</b>	Prochloraz Technical: Not toxic to bees
<b>Persistence and degradability:</b>	Rapidly degrades when exposed to sunlight and UV light
<b>Mobility:</b>	Product does not leach to ground water

#### Section 13: Disposal Considerations

<b>Methods of disposal:</b>	Container Disposal - Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.
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## SAFETY DATA SHEET MIRAGE 450 EC Fungicide

### Section 14: Transport Information

UN Number	3082
Proper shipping name	Environmentally hazardous substance, Liquid, N.O.S. (Prochloraz)
DG Class	9
Packing Group	III
Hazchem Code	2X
Marine Pollutant	No
IER Guide page	47

**National transport regulations:** Do not carry this product on a passenger service vehicle.

**Segregation:** Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

### Section 15: Regulatory Information

#### New Zealand Regulatory Information:

**NZFA Approval:** Registered pursuant to the ACVM Act 1997. No P7240  
See [www.nzfsa.govt.nz/acvm](http://www.nzfsa.govt.nz/acvm) for registration conditions.

Approved pursuant to the HSNO Act 1996, Approval No. HSR000599  
See [www.ermanz.govt.nz](http://www.ermanz.govt.nz) for registration conditions

**HSNO Classifications:** 3.1C, 6.1D, 6.3A, 6.8B, 6.9B, 8.3A, 9.1A, 9.3C



FLAMMABLE LIQUID



CORROSIVE (EYE)



ECOTOXIC

**APPROVED HANDLER** - This product must be under the care of an approved handler when it is used by a commercial contractor.

**RECORD KEEPING** - Records of use must be kept under certain circumstances – see The New Zealand Standards for Management of Agrichemicals (NZS8409) for details.

### Section 16: Other Information

Note: This product is a registered agricultural chemical and must be therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

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#### HISTORY

**Date of printing:** 03/06/2014



**SAFETY DATA SHEET**  
**MIRAGE 450 EC Fungicide**

Supersedes SDS issued

13/08/2009