



# SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

## Mirage

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Version 1

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R-7168 MCW 7876

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

#### Mirage

Synonyms Prochloraz 450 EC  
Pure substance/mixture Mixture

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Fungicide  
Uses advised against No information available

### 1.3. Details of the supplier of the safety data sheet

Supplier Address ADAMA Agricultural Solutions UK Ltd  
Unit 15, Thatcham Business Village Colthrop Way,  
Thatcham Berkshire RG19 4LW, UK : 01635 860555  
Fax: 01635 861555

For further information, please contact

Email address [ukenquiries@adama.com](mailto:ukenquiries@adama.com)

### 1.4. Emergency telephone number

Emergency Telephone National Chemical Emergency Centre (UK):  
Tel: 01865 407333 (24 hours)

## Section 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the Aquatic Environment - Chronic Hazard Category 1 - (H410)

### 2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



<b>Signal word</b>	Warning
<b>Hazard Statements</b>	H410 - Very toxic to aquatic life with long lasting effects
<b>Precautionary Statements</b>	P102 - Keep out of reach of children P501 - Dispose of contents/ container to an approved waste disposal plant
<b>EU Specific Hazard Statements</b>	EUH401 - To avoid risks to human health and the environment, comply with the instructions for use
<b>Additional phrases for PPP</b>	SP1 - Do not contaminate water with the product or its container

**2.3. Other hazards**  
**No information available**

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.2 Mixture**

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	M-Factor	REACH Registration Number
Prochloraz	38 - 42	67747-09-5	266-994-5	613-128-00-2	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=10	-
butan-1-ol	3 - 5	71-36-3	200-751-6	603-004-00-6	Flam Liq. 3 (H226) Acute Tox. 4 (H302) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H336)		01-2119484630 -38-XXXX
Butyrolactone	3 - 5	96-48-0	202-509-5	-	STOT SE 3 (H336) Eye Dam. 1 (H318) Acute Tox. 4 (H302)		01-2119471839 -21-0000

Full text of H- and EUH-phrases: see section 16

### Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

<b>General advice</b>	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Ingestion</b>	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms** None known

**4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**Section 5: FIRE-FIGHTING MEASURES**

**5.1. Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available.

**5.2. Special hazards arising from the substance or mixture**

No specific hazard known.

**5.3. Advice for firefighters**

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

**Section 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**6.3. Methods and material for containment and cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**6.4. Reference to other sections**

**Other Information**

See also section 8,13

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### **Advice on safe handling**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

#### **General Hygiene Considerations**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

### 7.3. Specific end use(s)

#### **Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain	Germany
butan-1-ol 71-36-3		STEL: 50 ppm STEL: 154 mg/m <sup>3</sup> Skin	STEL: 50 ppm STEL: 150 mg/m <sup>3</sup>	S* STEL: 50 ppm STEL: 154 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 310 mg/m <sup>3</sup> Ceiling / Peak: 100 ppm Ceiling / Peak: 310 mg/m <sup>3</sup>
Butyrolactone 96-48-0					Skin
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
butan-1-ol 71-36-3		TWA: 20 ppm		TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL: 75 ppm STEL: 230 mg/m <sup>3</sup> Skin	Ceiling: 50 ppm Ceiling: 150 mg/m <sup>3</sup> Skin
Butyrolactone 96-48-0				TWA: 50 ppm TWA: 14 mg/m <sup>3</sup> STEL: 250 ppm STEL: 70 mg/m <sup>3</sup> Skin	
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
butan-1-ol 71-36-3	STEL 200 ppm STEL 600 mg/m <sup>3</sup> TWA: 50 ppm TWA: 150 mg/m <sup>3</sup>	STEL: 50 ppm STEL: 150 mg/m <sup>3</sup> TWA: 50 ppm TWA: 150 mg/m <sup>3</sup>	STEL: 150 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup> Skin	Skin Ceiling: 25 ppm Ceiling: 75 mg/m <sup>3</sup>	TWA: 20 ppm STEL: 25 ppm STEL: 75 mg/m <sup>3</sup> Skin

### 8.2. Exposure controls

#### **Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

#### **Personal protective equipment**

##### **Eye/face protection**

Tight sealing safety goggles.

##### **Hand Protection**

Gloves made of plastic or rubber.

<b>Body Protection</b>	Suitable protective clothing, Apron, Gloves made of plastic or rubber.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>General Hygiene Considerations</b>	When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.
<b>Environmental exposure controls</b>	Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Appearance</b>			
Physical state	: liquid		
Color	: clear amber		
Odor	: characteristic		
<b>Odor threshold</b>	: No data available		
<b>pH</b>	: 7 - 8	CIPAC MT 75.3	solution (1 %)
<b>Melting point/freezing point °C</b>	: No data available		
<b>Boiling point/boiling range °C</b>	: No data available		
<b>Flash point °C</b>	: 82	EEC A.9	
<b>Evaporation rate</b>	: Not Applicable		
<b>Flammability (solid, gas)</b>	: Not Applicable		
<b>Upper/lower flammability or explosive limits</b>	: No data available		
<b>Vapor pressure kPa</b>	: No data available		
<b>Vapor density</b>	: No data available		
<b>Relative density</b>	: 1.130 - 1.135	OECD 109	
<b>Solubility(ies) mg/l</b>	: No data available		
<b>Partition Coefficient (n-octanol/water) Log Pow</b>	:		See Section 12 for more information
<b>Autoignition temperature °C</b>	: No data available		
<b>Decomposition temperature °C</b>	: No data available		
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	: 311*10 <sup>-6</sup>	OECD 114	20 °C
<b>Explosive properties</b>	: Not an explosive		
<b>Oxidizing properties</b>	: No data available		

### 9.2. Other information

<b>Bulk density g/ml</b>	:
<b>Surface tension mN/m</b>	: Not Applicable

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal processing.

### 10.4. Conditions to avoid

Heat, flames and sparks.

**10.5. Incompatible materials**

No information available

**10.6. Hazardous decomposition products**

None under normal use conditions.

**Section 11: TOXICOLOGY INFORMATION**

**11.1. Information on toxicological effects**

**Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: >2000	Rat	OECD 401	Maximum attainable concentration
Dermal LD50 mg/kg	: >2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: >4.99	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

**Chronic toxicity**

**Germ cell mutagenicity**

Chemical Name  
Prochloraz : Not classified

**Carcinogenicity**

Chemical Name  
Prochloraz : Not Carcinogenic

**Reproductive toxicity**

Chemical Name  
Prochloraz : Not toxic for the reproductive system

**STOT - single exposure**

Chemical Name  
Prochloraz : No data available

**STOT - repeated exposure**

Chemical Name  
Prochloraz : No data available

**Aspiration hazard**

Chemical Name  
Prochloraz : No data available

**Section 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**Aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity Fish 96-hour LC50 mg/l	: 3.05	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: 4.0	Daphnia magna	OECD 202	

<b>Algae 72-hour EC50 mg/l</b>	: 1.42	Selenastrum capricornutum	OECD 201	
<b>Other plants EC50 mg/l</b>	:			No data available
<b>Terrestrial Toxicity</b>				
<b>Birds Oral LD50 mg/kg</b>				
<b>Chemical Name</b>				
Prochloraz	: 624	Bobwhite quail	US EPA 71-1	
<b>Bees Oral LD50 µg/bee</b>				
<b>Chemical Name</b>				
Prochloraz	: 684			

**12.2. Persistence and degradability**

<b>Abiotic Degradation</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
<b>Water DT50 days</b>			
<b>Chemical Name</b>			
Prochloraz	: 11.7		
<b>Soil DT50 days</b>			
<b>Chemical Name</b>			
Prochloraz	: 223.62		
<b>Biodegradation</b>			
<b>Chemical Name</b>			
Prochloraz	: Not readily biodegradable	OECD 301 D	

**12.3. Bioaccumulative potential**

<b>Partition Coefficient (n-octanol/water) Log Pow</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
<b>Chemical Name</b>			
Prochloraz	: 4.3	EEC A.8	20-25 ° C
<b>Bioconcentration factor (BCF)</b>			
<b>Chemical Name</b>			
Prochloraz	: 150-247		

**12.4. Mobility in soil**

<b>Adsorption/Desorption</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
<b>Chemical Name</b>			
Prochloraz	: 1222-8654		Koc

**12.5. Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**12.6. Other adverse effects**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

<b>Waste from residues/unused products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Improper disposal or reuse of this container may be dangerous and illegal.

**Other Information** Waste codes should be assigned by the user based on the application for which the product was used.

## Section 14: TRANSPORTATION INFORMATION

### IMDG/IMO

14.1 UN/ID No \* 3082  
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Prochloraz )  
14.3 Hazard Class 9  
14.4 Packing Group III  
14.5 Marine pollutant Not regulated Yes  
14.6 Special precautions for user

### RID/ADR

14.1 UN/ID No \* 3082  
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Prochloraz )  
14.3 Hazard Class 9  
14.4 Packing Group III  
14.5 Environmental hazard Not regulated Yes  
14.6 Special precautions for user  
14.7 Tunnel restriction code -

### ICAO/IATA

14.1 UN/ID No \* 3082  
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Prochloraz )  
14.3 Hazard Class 9  
14.4 Packing Group III  
14.5 Environmental hazard Not regulated Yes  
14.6 Special precautions for user  
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable



\* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

## Section 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H226 - Flammable liquid and vapor



H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H336 - May cause drowsiness or dizziness  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

#### List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
CAS Number - Chemical Abstracts Service number  
EC Number - EINECS and ELINCS Number  
EINECS - European Inventory of Existing Commercial Substances  
ELINCS - European List of notified Chemical Substances  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
OECD - Organization for Economic Co-operation and Development  
PBT - Persistent, Bioaccumulative and Toxic substance  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
STOT - Specific Target Organ Toxicity  
vPvB - Very Persistent and Very Bioaccumulative

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Revision Note** Changes made to the last version are labeled with this sign \*\*\*.

#### Disclaimer

**The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**