

MATERIAL SAFETY DATA SHEET

MIRAGE 40 EC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : MIRAGE 40 EC
Chemical name of active ingredient(s) : 1-N-propyl-N-[2-(2,4,6-trichlorophenoxy) ethyl]-1H-imidazole-1-carboxamide (CA).
Chemical formula : Prochloraz: C₁₅H₁₆Cl₃N₃O₂.
EU Cat. No. : Prochloraz: 613-128-00-2.
 Xylene: 601-022-00-9.
Code no. : R-10029.DPD
Supplier : Makhteshim Agan (UK) Limited
 Unit 16, Thatcham Business Village Colthrop Way
 Thatcham
 Berkshire RG19 4LW
 Tel No: 01635 860555 Fax No: 01635 861555.
Emergency telephone number : National Chemical Emergency Centre
 Tel: 01865 407333.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Preparation.

Information on hazardous ingredients *

Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Prochloraz	67747-09-5	400 g/l	266-994-5	Xn, N	R22-50/53
Xylene	1330-20-7	Approx. 35%	215-535-7	Xn	R10-20/21-38
Diethylene glycol	111-46-6	Approx. 10%	203-872-2	Xn	R22
Ca dodecylbenzene sulphonate	-	Approx. 6%	-	Xi	R38/41

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

3. HAZARDS IDENTIFICATION

Physical/chemical hazards : Flammable.
Human health hazards : Risk of serious damage to eyes.
 Irritating to skin.
Environmental hazards : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

Effects and symptoms

Eye contact : Redness, tears.

First-aid measures

Inhalation : Remove victim to fresh air. Keep victim warm and at rest.
 If breathing is difficult: give oxygen.
 If not breathing: apply artificial respiration.
 Get medical attention.

Ingestion : Induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Get medical attention.

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Skin contact	: Remove contaminated clothing. Wash off with plenty of water and soap. Consult a doctor in the event of any complaints.
Eye contact	: Wash off with plenty of water for at least 15 minutes. Immediately consult an eye specialist.
Notes to a physician	: There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable	: In case of a small fire: dry chemical, carbon dioxide. In case of a large fire : Water spray, fog or regular foam.
Special fire-fighting procedures	: Fight fires from a protected location. Dike fire control water for later disposal.
Hazardous thermal (de)composition products	: NO _x , CO, CO ₂ and Chlorides.
Protection of fire-fighters	: Wear suitable protective clothing. Self-contained breathing apparatus. During cleaning activity, shut off ignition sources.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Use appropriate protection (see section 8). During cleaning activity, shut off ignition sources.
Environmental precautions	: Dispose of this material and its container at hazardous or special waste collection point, If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.
Methods for cleaning up	: In the event of minor spillage: Absorb in sand or other inert material. Use appropriate containment to avoid environmental contamination. In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

7. HANDLING AND STORAGE

Handling	: Do not breathe fumes. Avoid contact with skin and eyes.
Storage	: Keep locked up. Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place (<50°C). Keep container dry. Keep away from sources of ignition - No smoking.
Packaging materials	
Suitable	: Drums with polyethylene liner. Metal drums coated with epoxy resin. Coextruded or fluorinated polyethylene containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	: Ventilation required. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Hygiene measures	: Wash hands thoroughly after handling. Wash clothing separately before re-use.

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Occupational Exposure Limits

Common name	: Prochloraz
TLV (USA)	: Not established.
Common name	: Xylene
TLV (USA)	: 434 mg/m ³ , A4 (1996)

Personal protective equipment

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.
Colour	: Clear amber solution.
Odour	: Characteristic odour (aromatic).
Molecular weight	: Prochloraz: 376.7.
Melting point	: Prochloraz: 46-49°C.
Vapour pressure	: Prochloraz: 4.5X10 ⁻⁵ Pa at a temperature of 25°C - Pure.
Specific gravity (H₂O=1)	: 1.08-1.09 g/ml at a temperature of 20°C.
Solubility in water	: Emulsifiable. Prochloraz: 25 ppm, at a temperature of 20°C - Pure.
Octanol/water partition coefficient	: Prochloraz: log Pow = 4.06.
Flash point	: 23°C (Closed cup).
Explosion properties	: Not explosive. Xylene: Lower explosion limit = 1% Upper explosion limit = 7%

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.
Conditions to avoid	: Protect from (sun)light, open flame and sources of heat. Decomposes upon heating.
Materials to avoid	: Avoid contact with: strong acids and strong bases.
Hazardous reactions	: Hazardous polymerization will not occur.
Hazardous decomposition products	: NO _x , CO, CO ₂ and Chlorides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	: No toxicological information is known on the product. Toxicological information is known for the product MIRAGE 45 EC:
Acute toxicity - Oral	: LD ₅₀ > 2000 mg/kg (rat).
Acute toxicity - Dermal	: LD ₅₀ > 2000 mg/kg (rat).
Acute toxicity - Inhalation	: LC ₅₀ > 5.86 mg/l, 4 hours (rat).
Skin irritation	: Moderate to severe irritant (rabbit).
Eye irritation	: Severely irritating to eyes (rabbit).
Sensitization	: Guinea pig maximization test: Non sensitizer.

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Common name : Prochloraz
Carcinogenicity : Not carcinogenic (rat).
Mutagenicity : Not mutagenic.
Reproduction toxicity : Not teratogenic in animal experiments.

12. ECOLOGICAL INFORMATION

Common name : Prochloraz
Mobility : Prochloraz does not leach to ground water.
Persistence/degradability : Rapidly degrades when exposed to sunlight and UV light.
Ecotoxicity : Birds: LD₅₀ > 2000 mg/kg.
Not toxic to bees.

Fish: LC₅₀ = 1.43 mg/l, 96 hours (rainbow trout).
Daphnia: EC₅₀ = 0.85 mg/l, 48 hours.
Algae: ErC₅₀ = 1.19 mg/l; EbC₅₀ = 0.28 mg/l, 72 hours.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Disposal according to the local legislation.

14. TRANSPORT INFORMATION

International transport regulations

UN number : 1993

Land - Road/Railway

Proper shipping name : Flammable liquid, N.O.S., Xylene.
ADR/RID Class : 3
ADR/RID Item number : 31^o(c)
Packing group : III
Hazard Identification Number : 30

Inland waterways

Proper shipping name : Flammable liquid, N.O.S., Xylene.

Sea

Proper shipping name : Flammable liquid, N.O.S., Xylene.
IMDG Class : 3.3
IMDG Page number : 3345
Packing group : III
Emergency Schedules (EmS) : 3-07

Air

Proper shipping name : Flammable liquid, N.O.S., Xylene.
UN/ID Number : 1993

National transport regulations

No additional national transport regulations are known to the supplier

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15. REGULATORY INFORMATION

Classification : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations:
Hazard symbol(s) : Xi, N



IRRITANT (Xi)



DANGEROUS FOR THE ENVIRONMENT (N)

Risk phrases : R10: Flammable
R38: Irritating to skin
R41: Risk of serious damage to eyes
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases : S02: Keep out of the reach of children
S13: Keep away from food, drink and animal feedingstuffs
S20/21: When using do not eat, drink or smoke
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. OTHER INFORMATION

Recommended use : Fungicide.

Text of R-phrases in section 2

R10: Flammable
R20/21: Harmful by inhalation and in contact with skin
R22: Harmful if swallowed
R38: Irritating to skin
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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.

HISTORY

Date of printing : 11/02/2003

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The version-number is made up of three parts; part 1 is a general information code, part 2 a country-specific code and part 3 a language-specific code