

SAFETY DATA SHEET

CAPRICORN

0000AA 1.00 GB Current 16.01.2001

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Trade Name	CAPRICORN
Product (Specification) Code	0000AA
Aventis CropScience Product Code	None known.
Usage	Suspension Concentrate (water based) Fungicide
Appearance	Flowable white liquid suspension
Manufacturer/Supplier	Bayer Environmental Science
Address	Durkan House 214-224 High Street Waltham Cross Hertfordshire EN8 7DP
Phone Number	01992 784270
Fax Number	01992 784276
Emergency Phone Number	0800 220876 (24 hr UK) +44 1603 242424 (24 hr Overseas)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components in Product for EC

Component Name	CAS No	Conc. %w/w	R Phrases	Classification
1. Carbendazim	10605-21-7	11.50	R40	MC3
2. Epoxyconazole	106325-08-0	11.50	R40, R63	Xn
3. Solvent, naphtha (petroleum)	64742-94-5	1.00 < 5.00	R65, R51/53	Xn, N

3. HAZARDS IDENTIFICATION

Main Hazards	May cause sensitisation by skin contact.
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4. FIRST-AID MEASURES

Eyes	Rinse immediately with clean water for at least 15 minutes and obtain medical aid.
Skin	Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if at all worried.
Ingestion	Wash out mouth with water. Induce vomiting only if the patient is fully conscious and within 30 minutes of ingestion. Keep patient at rest and seek medical advice.
Inhalation	If inhaled, remove to fresh air and keep at rest. Obtain medical aid if at all worried.
Advice to Physicians	This formulation contains carbendazim which is very rapidly absorbed and eliminated from the body. Carbendazim is NOT a Cholinesterase-inhibitor. Brief Summary of Symptoms and Signs: Local Contamination: May cause slight skin and eye irritation. Systemic Poisoning: None documented in humans. Treatment: Local Contamination: Symptomatic after decontamination. Treat as documented above under 'First-Aid Measures'. Systemic Poisoning: Initial treatment should be symptomatic and supportive. In the event of a large 'exposure'/amount (more than one mouthful) being ingested, the following measures should be considered:- carry out gastric lavage and charcoal administration and pay particular attention to monitoring the blood count. There is no specific antidote. Recovery is normally spontaneous. Further advice is available from; Bayer Environmental Science via the emergency telephone number above or from the nearest Poisons Unit.

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5. FIRE-FIGHTING MEASURES

Extinguishing Media	Product is not combustible. If product is involved in a fire, use waterspray, foam, dry powder, carbon dioxide or sand.
Unsuitable Extinguishing Media	None.
Special Exposure Hazards	May give off toxic fumes if heated to decomposition.
Protective Equipment for Fire-Fighting	Do not breathe fumes. Wear self contained breathing apparatus.
Fire Fighting Guidance	If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing as detailed in Section 8.
Environmental Precautions	Keep people and animals away. Prevent entry into drains, sewers and watercourses. In the UK if spillage enters drains leading to sewage works inform local water company plc immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060). Overseas, inform the appropriate authority immediately.
Spillages	Contain/absorb spillage in sand/earth or in a suitable inert material. Transfer collected material to heavy duty plastic drums and keep safe for disposal.
Note	Check also for any local site procedures in force.

7. HANDLING AND STORAGE

Handling	No specific precautions required when handling unopened containers; follow any relevant manual handling guidance. Refer to Section 8 if exposure to product is possible. Wash thoroughly with soap and water after handling and before eating, drinking or smoking.
Storage	Store in original packs/containers in a dry secure area designated for pesticides with access for authorised staff only. Store away from seeds, fertilizers and animal feedstuffs.
Technical Storage Measures	Protect from frost.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards	
1. Product	None assigned.
Engineering Control Measures	Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection.
Respiratory Protection	None required when handling the product.
Hand Protection	Wear chemical resistant PVC or nitrile gloves.
Eye Protection	Wear safety goggles with unperforated side shield or goggles (conforming to BS EN 166 or BS 2092 for older goggles).
Other	Wear PVC or chemical resistant disposable overalls and PVC boots.
Other Information	If feasible, decontaminate protective clothing before removal. Where decontamination is not feasible (before or after removal) dispose of as contaminated waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid.
Colour	White.

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9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

Odour	Faint. Aromatic.
pH	6.0 to 8.0 at 1% w/w in water.
Boiling Range/Point (deg C)	Not determined.
Melting Point/Freezing Point (deg C)	Not determined.
Flash Point (deg C)	Non-combustible.
Explosion Limits (%)	None.
Solubility in Water	Miscible.
Vapour Pressure	Not determined.
Density (g/ml)	1.09 at 20 °C.
Flammability	Not combustible
Auto-flammability (deg C)	Not applicable
Explosive Properties	None.
Oxidising Properties	None.
Vapour Density (Air = 1)	As for water
Dust Explosion Data	Not applicable
Summary/Other Data	A non-combustible liquid.

10. STABILITY AND REACTIVITY

Stability	Stable at ambient conditions.
Conditions to Avoid	None.
Materials to Avoid	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Inhalation	Low toxicity.
Skin and Eye Contact	Low toxicity. May cause sensitisation by skin contact.
Ingestion	Low toxicity.
Carcinogenicity	Carbendazim; Not carcinogenic in the rat.
Genotoxicity	Epoxyconazole; Exhibits a measurable carcinogenicity response in mice. Carbendazim; Classified by EEC as a category 3 mutagen:- substances which cause concern for man owing to possible mutagenic effects but where the available information does not satisfactorily demonstrate heritable genetic damage.
Reproductive Toxicity	Epoxyconazole; No data. Carbendazim; No adverse effects on fertility, reproductive performance or embryonic/foetal development following dietary administration. However, following gavage administration, carbendazim was teratogenic as the result of temporary inhibited microtubule formation during cell duplication. Epoxyconazole; classified by EEC as category 3 teratogen:- substances which cause concern for man owing to possible teratogenic effects but in respect of which the information is not adequate for making a satisfactory assessment.

12. ECOLOGICAL INFORMATION

Mobility	Carbendazim; Immobile in soil. Epoxyconazole; No data.
Persistence/Degradability	Carbendazim; Soil DT50 30 to 90 days (laboratory) . Soil DT50 100 days (field) . Water DT50 > 30 days (pH 7.0) Photolysis DT50 > 166 days (290 to 490 nm).

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12. ECOLOGICAL INFORMATION (continued)

Bio-accumulation	Sediment/Water System DT50 22 to 31 days. COD = 30 mgO ₂ /l. Epoxyconazole; Soil DT50 2 to 3 months. No significant hydrolysis at pH 5.0 and pH 7.0 within 12 days.
Aquatic Toxicity	Carbendazim; Kow = 32. Bio-accumulation factor is; 23 to 27 bluegills (whole body). Epoxyconazole; Log P = 3.44. Product; 96 hr LC50 onchorhynchus mykiss 1.0 mg/l, 48 hr EC50 daphnia 1.36 mg/l, 72 hr EC50 algae 1.7 mg/l.
Other Toxicity	Carbendazim; 96 hr LC50 trout 0.83 mg/l, carp 0.61 mg/l, channel catfish 0.019 mg/l, 48 hr EC50 daphnia 0.1 mg/l, 72 hr EbC50 algae 1.3 mg/l. Epoxyconazole; 96 hr LC50 trout 2.2 to 4.6 mg/l, bluegill sunfish 4.6 to 6.8 mg/l, 48 hr EC50 daphnia 8.7 mg/l, 72 hr EC50 algae 2.3 mg/l. Carbendazim; Acute oral LD50 quail > 2250 mg/kg, white leghorn laying hen > 10 mg/kg. Low toxicity to the following species; bees and beneficial arthropods . Very toxic to the following species; earthworms . Epoxyconazole; Acute oral LD50 quail > 2000 mg/kg. Low toxicity to the following species; bees and earthworms .

13. DISPOSAL CONSIDERATIONS

Product Disposal	Disposal of product would usually be by incineration in an appropriately licensed commercial incinerator. Small quantities may be accepted in licensed landfill sites. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK). In the UK disposal arrangements should be in accordance with the Duty of Care Regulations and, where applicable, with the Special Waste Regulations.
Container Disposal	Lightly contaminated packaging may be acceptable for landfill, otherwise incineration will be required. See above for advice.

14. TRANSPORT INFORMATION

UN Number	3082
UN Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s. (contains carbendazim 11.5 %)
UN Class	9
UN Packaging Group	III
ADR/RID - Description	3082, Environmentally hazardous substance, liquid, n. o. s (contains carbendazim 11.5 %, epoxyconazole 11.5 % and petroleum distillates), 9, 11*(c), ADR
CDG(CPL) - Description	3082, Environmentally hazardous substance, liquid, n.o.s (contains carbendazim 11.5 %, epoxyconazole 11.5 % and petroleum distillates). Class: 9. Hazard Identification Number: 90. Packing Group: III
IMDG - Proper Shipping Name	As for UN + marine pollutant symbol used where appropriate.
IMDG - Ems Number	None.
IMDG - MFAG Table Number	None.
ICAO - Proper Shipping Name	As for UN.

15. REGULATORY INFORMATION

Risk symbol	 Irritant
Hazard Classification	Xi - Irritant

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15. REGULATORY INFORMATION (continued)

Designated Name	Capricorn (contains carbendazim 125 g/l and epoxyconazole 125 g/l)
R phrases	43-May cause sensitisation by skin contact.
S phrases	36/37-Wear suitable protective clothing and gloves. 45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Control of Pesticides Regulations 1986: Precautions	<p>WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.</p> <p>WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle mounted equipment.</p> <p>WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when handling contaminated surfaces</p> <p>WEAR SUITABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when applying by hand held equipment.</p> <p>TAKE OFF IMMEDIATELY all contaminated clothing.</p> <p>WHEN USING DO NOT EAT, DRINK OR SMOKE.</p> <p>WASH SPLASHES OF CONCENTRATE from skin and eyes immediately.</p> <p>WASH HANDS before meals and after work.</p> <p>KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.</p> <p>KEEP OUT OF REACH OF CHILDREN.</p> <p>HARMFUL TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.</p> <p>DO NOT ALLOW DIRECT SPRAY from ground crop sprayers to fall within 5m of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. DO NOT ALLOW DIRECT SPRAY from hand held sprayers to fall within 1 m of the top of a bank of a static or flowing water body. Direct spray away from water.</p> <p>KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.</p> <p>WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.</p> <p>DO NOT RE-USE THIS CONTAINER.</p>

16. OTHER INFORMATION

MSDS first issued	16 January 2001
MSDS data revised	
Footnote	This Safety Data Sheet was prepared in compliance with Commission Directive 93/112/EC, 67/548/EEC and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

Disclaimer

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the use of the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licences, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.
