

# SAFETY DATA SHEET

14/2/01

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

Dow AgroSciences Limited  
Latchmore Court  
Brand Street  
Hitchin  
Herts SG5 1NH

Emergency Telephone Number: UK: 0870 600 2999  
Eire: 01 821 4999

Poisons Information Centre: UK: 0121 507 5588/5589  
Eire: 01 837 9964/66

Product Name: **FORTRESS DUO FUNGICIDE**

LV70: 58809

Issue Date: April 98

Ref: D0R13

Revised: Feb. 01 (Section(s) 3, 13 &amp; 15)

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Components contributing to hazard:

		CAS	EINECS
Quinoxifen	67 g/L	124495-18-7	
Fenpropimorph	250 g/L	067564-91-4	266-719-9
Inert ingredients	Balance		
Composition Code	EF1288		

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## 3. HAZARDS IDENTIFICATION

May cause sensitization by skin contact. Very toxic to aquatic organisms.

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## 4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

### Ingestion

Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by an attending physician.

# SAFETY DATA SHEET

14/2/01

FORTRESS DUO FUNGICIDE

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**Eye Contact**

Irrigate immediately with water for at least 5 minutes.

**Skin Contact**

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse.

**Inhalation**

Remove to fresh air. Consult a physician.

**Note to Physician**

No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

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**5. FIRE-FIGHTING MEASURES****Extinguishing Media**

Water fog or fine spray. Carbon dioxide. Dry chemical. Foam.

**Hazardous Combustion Products**

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.

**Protection of Firefighters**

Wear protective clothing and use self-contained breathing apparatus.

**Additional Information**

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

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**6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Wear appropriate safety clothing and eye/face protection (see Section 8).

**Environmental Precautions**

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

**Methods of Cleaning Up**

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

# SAFETY DATA SHEET

14/2/01

FORTRESS DUO FUNGICIDE

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## 7. HANDLING AND STORAGE

### Handling

Avoid skin contact. Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

### Storage

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

None established.

### Engineering Controls

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

### Respiratory Protection

For most conditions, no respiratory protection should be needed. However, if respiratory irritation is experienced use an approved air-purifying respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

### Hand/Skin Protection

For brief contact, no precautions other than clean body-covering clothing and impervious gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

### Eye/Face Protection

Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: opaque liquid
Colour	: beige
Rel. density (water=1)	: 1.02 (20 deg.C) (approx.)
Water solubility	: suspends
Flash point	: none

# SAFETY DATA SHEET

14/2/01

FORTRESS DUO FUNGICIDE

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## 10. STABILITY AND REACTIVITY

### Chemical Stability

Is stable under normal storage conditions.

### Conditions to Avoid

None determined.

### Materials to Avoid

Strong basic, acidic or oxidising materials.

### Hazardous Decomposition Products

None under normal conditions of storage and use.

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## 11. TOXICOLOGICAL INFORMATION

### Ingestion

Single dose oral toxicity is considered to be low.  
The oral LD50 for rats is >2000mg/kg.

### Skin Contact

The dermal LD50 for rabbits is >2000mg/kg.  
A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.  
May cause slight but prolonged irritation.

### Sensitisation

Sensitising to guinea pig skin.

### Eye Contact

May cause slight eye irritation.

### Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling.

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## 12. ECOLOGICAL INFORMATION

### Persistence and Degradability

Assessment largely or completely based on data for active ingredient.

#### Quinoxifen:

Does not leach in soils and is therefore unlikely to contaminate ground water. Material is expected to degrade only slowly in the environment.

#### Fenpropimorph:

Half-life in soils is dependent on soil type and conditions and is approximately 15-93 days.

# SAFETY DATA SHEET

14/2/01

FORTRESS DUO FUNGICIDE

**Aquatic Toxicity**

Material is slightly toxic to fish on an acute basis (10mg/l <LC50 <100mg/L).

Material is moderately toxic to aquatic invertebrates on an acute basis (1mg/L <LC50 <10mg/L).

Material is very toxic to algae (IC50 <1.0 mg/l).

**Avian Toxicity**

Assessment largely or completely based on data for active ingredient.

Quinoxifen:

For birds, material is expected to be of low toxicity.

**13. DISPOSAL CONSIDERATIONS**

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

**14. TRANSPORT INFORMATION****Road, Rail & Barge**

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(CONTAINS QUINOXYFEN 6.5% W/W AND FENPROPIMORPH 24.5% W/W)

Truck - ADR Loaded	: 9-11c	Empty	: 9-21	Label	: 9
Rail - RID Loaded	: 9-11c	Empty	:	Label	: 9
		Filling %		Packed	:
		Filling %		Bulk	:
		Filling Kg/L		(Gas)	:
Kemler Code	: 90	UN Number			: 3082
Tremcard Nr. CEFIC	: 90G01				
Tremcard Nr. Other	:				
Barge - ADNR Loaded	: 9-11c	Empty	: 9-21	Label	: 9
Ship Type	:	CATG.	:		

**Sea**

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(CONTAINS QUINOXYFEN 6.5% W/W AND FENPROPIMORPH 24.5% W/W)

Sea - IMO/IMDG Class	: 9	UN Nr	: 3082	Label	: 9
Packing Group	: III	EMS	: -	MFAG	: -
Container Type	:	Marine Pollutant			: Y (Y/N)
Test Pressure (bar)	:	Filling %		Packed	:
		Filling %		Bulk	:
		Filling Kg/L		(Gas)	:

