

# SAFETY DATA SHEET

26/4/04

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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 1NHEmergency Telephone Number: UK: 0870 600 2999  
Eire: 01 821 4999Product Name: **UNIKAT 75WG FUNGICIDE : MAPP 10567 / 11018**

LV70: 16573

Issue Date: Feb. 02

Ref: BG814

Revised: April 04 (Section(s) 2-9, 11, 12 &amp; 14-16)

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**2. COMPOSITION/INFORMATION ON INGREDIENTS****Dangerous components (see section 16 for complete R-phrases):**

			CAS	EC No
Mancozeb	66.7 %	Xi; R37, R43, N;R50/53	008018	-01-7 235-654-8
Zoxamide	8.3 %	Xi N; R43- 50/53	156052	-68-5
Hexamethylenetetramine	1.6 %	F,Xn; R11 - 42/43	000100	-97-0 202-905-8
Inert ingredients	Balance			
Composition Code	GF1045			

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**3. HAZARDS IDENTIFICATION**

Irritating to respiratory system. May cause sensitization by skin contact. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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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. Provided the patient is conscious, wash mouth with water and give plenty of water to drink. Consult a physician. The decision of whether to induce vomiting or not should be made by a physician.

### Eye Contact

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

### Skin Contact

Immediately wash skin with soap and plenty of water. Consult a physician if irritation develops.

### Inhalation

Remove to fresh air. Consult a physician if irritation develops.

### Note to Physician

Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

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## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

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

### Hazardous Combustion Products

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating.

Combustion products include: Hydrogen sulphide. Hydrogen chloride. Nitrogen oxides. Sulphur oxides. Carbon oxides.

### 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. Avoid breathing smoke. Work upwind of any spill.

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Wear appropriate safety clothing and eye/face protection (see Section 8). Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

### 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

Spills should be cleaned up immediately using care to minimise generation of airborne dust. Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

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## 7. HANDLING AND STORAGE

### Handling

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. 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

Mancozeb: Dow AgroSciences recommendation is 1.0 mg/m<sup>3</sup>.

### Engineering Controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

### Respiratory Protection

For most conditions, no respiratory protection should be needed. However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

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## Hand/Skin Protection

For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Neoprene.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.  
For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

## Eye/Face Protection

Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: microgranules
Colour	: yellow to brown
Odour	: slightly sulphurous
Bulk density	: 0.6-0.7 kg/L
Vapour pressure	: negligible
Water solubility	: disperses
Explosive properties	: not explosive
Oxidising properties	: non-oxidising
Flammability	: not flammable
Self-ignition temperature	: 162 deg.C (approx.)
pH	: 7 (1% aqueous suspension)

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## 10. STABILITY AND REACTIVITY

### Chemical Stability

Is stable under normal storage conditions.

### Conditions to Avoid

Avoid moisture. Excessive heat. Open flames.

### Materials to Avoid

Oxidising agents. Acids.

### Hazardous Decomposition Products

None under normal conditions of storage and use.

Thermal decomposition products include: Hydrogen sulphide. Carbon disulphide. Hydrogen chloride.

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## 11. TOXICOLOGICAL INFORMATION

### Ingestion

Low toxicity if swallowed. The oral LD50 for rats is >5000 mg/kg.

### Skin Contact

The dermal LD50 for rats is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Prolonged or repeated exposure may cause slight skin irritation.

### Sensitisation

Sensitising to guinea pig skin.

### Eye Contact

May cause slight temporary eye irritation.

### Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling. The LC50 for inhalation in rats is greater than the maximum attainable.

### Additional Information

Not carcinogenic. Not mutagenic. Not toxic for reproduction.

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## 12. ECOLOGICAL INFORMATION

### Persistence and Degradability

Assessment largely or completely based on data for active ingredient.

Mancozeb: Rapidly degraded in the environment by hydrolysis, oxidation, photolysis and metabolism. Tightly bound to soil and is extremely resistant to leaching and elution. Half-life in soils is dependent on soil type and conditions and is approximately 6-15 days.

Zoxamide: Half-life in soils is dependent on soil type and conditions and is approximately 2-10 days.

### Aquatic Toxicity

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

Material is toxic to aquatic invertebrates on an acute basis (1mg/L<EC50<10mg/L).

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

### Avian Toxicity

Material is practically non-toxic to birds on an acute basis (LD50 >2000mg/kg).

### Additional Information

LD50 for earthworms is >1000mg/kg.

LD50 for bees is >100 microgram/bee.

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## 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.

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## 14. TRANSPORT INFORMATION

### Road & Rail

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Mancozeb)

Truck/Rail ADR/RID : 9 Label :< >

Classification Code : M7

Packing Group : III

Kemler Code : 90 UN Number : 3077

Tremcard Nr. CEFIC : 90GM7-III

