





Product Registration Number MAPP 12691

A water dispersible granule containing 75% w/w mancozeb

**A protectant fungicide for the control of apple and pear scab and other diseases of horticultural crops**

**Pack size: 10kg**

	<p><b>IRRITATING TO THE RESPIRATORY SYSTEM. MAY CAUSE SENSITISATION BY SKIN CONTACT. VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.</b></p>
IRRITANT	
	<p>WEAR SUITABLE GLOVES. AVOID CONTACT WITH SKIN. KEEP OUT OF REACH OF CHILDREN THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION. To avoid risks to man and the environment, comply with the instructions for use.</p>
DANGEROUS FOR THE ENVIRONMENT	

**SAFETY PRECAUTIONS**

**Operator protection:**

#Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

#WEAR SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT when handling the concentrate.

#However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before meals and after work.

**Environmental protection:**

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

**Storage and disposal:**

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

EMPTY CONTAINER COMPLETELY and dispose of safely.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

**COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL SAFETY PRECAUTIONS MARKED # IS A LEGAL REQUIREMENT FOR USE ONLY AS A HORTICULTURAL FUNGICIDE**

<b>Crops</b>	<b>Maximum Individual Dose</b>	<b>Maximum Number of Treatments</b>	<b>Latest Time of Application</b>
Apple, pear (bud burst to petal fall)	5.6 kg product per hectare	See Other Specific Restrictions	28 days before harvest
Apple, pear (petal fall onwards)	4.5 kg product per hectare	See Other Specific Restrictions	28 days before harvest
Blackcurrant, gooseberry	See Other Specific Restrictions	See Other Specific Restrictions	28 days before harvest
Field grown lettuce	3.9 kg product per hectare	See Other Specific Restrictions	14 days before harvest
Protected lettuce	3.9 kg product per hectare	2 per crop.see also Other Specific Restrictions	21 days before harvest
Tulip	See Other Specific Restrictions	-	-
Chrysanthemum, rose, carnation, geranium	See Other Specific Restrictions	-	-

**Other Specific Restrictions: #**

The following maximum concentrations must not be exceeded:

Tulip . 2.2 kg product/1000 litres water

Chrysanthemum, rose, carnation, geranium- 1.8 kg product/1000 litres water

Blackcurrant, gooseberry . 1.5 kg product/1000 litres water

The following intervals between applications must be observed:

When applied to apple and pear at full rate- 10 days

When applied to apple and pear at half rate . 7 days

Blackcurrant, gooseberry and field grown lettuce . 10 days

Only two post-planting applications of any combination of approved products containing EBD compounds or thiram may be used on winter and summer protected lettuce within two weeks of planting out and none thereafter.

OR

If only thiram based products are used three post-planting applications can be made to winter protected lettuce within three weeks of planting out and none thereafter.

**READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE USE.**

**PROTECT FROM FROST**

This label is compliant with the CPA Voluntary Initiative Guidance



## DIRECTIONS FOR USE OF KARAMATE DRY FLO NEWTEC

### IMPORTANT

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

### GENERAL INFORMATION

KARAMATE\* DRY FLO NEWTEC is a preventative fungicide. The first application should be made just before disease is expected to appear, with repeated applications at the required intervals for as long as protection is required.

### WATER VOLUMES

KARAMATE\* DRY FLO NEWTEC should be applied in a minimum of 200 litres of water per hectare.

### MIXING - all crops

Half fill the spray tank with clean water and begin agitation. Add the required amount of KARAMATE\* DRY FLO NEWTEC to the tank and complete filling. Continue agitation until spraying is completed.

### COMPATIBILITY

For the latest advice on tank mixes please contact your dealer/advisor.

## APPLES and PEARS

### Application Rate and Timing

Disease	RateKg/ha	Timing
Apple and Pear scab	5.6	Bud burst to petal fall
	4.5	Petal fall onwards

Apply at bud burst and continue at 10-14 day intervals until scab spore discharge has ceased (normally mid-July).

In periods of high disease risk apply at 7 day intervals at half rate. KARAMATE\* DRY FLO NEWTEC can be applied up to 28 days before harvesting. Regular use will reduce red spider mite populations

### KARAMATE\* DRY FLO NEWTEC / SYSTHANE TANK MIXTURES

KARAMATE\* DRY FLO NEWTEC may be used at a reduced rate when mixed with Systhane® 20EW for optimum control of scab on fruit.

Spray interval	Rate (kg/ha) of Karamate Dry Flo Newtec for tank mixing with Systhane® kg/ha
7 days	1.5
8 -10 days	2.1
11 – 14 days	3.0

## BLACKCURRENTS and GOOSEBERRIES

### Application Rate ( High Volume) and Timing

Disease	Rate Kg/1000 litres water	Timing
Leaf spot	1.5	First application should be made at early grape stage (blackcurrants) or early flowering (gooseberries).

Repeat at 10 -14 day intervals until 28 days before picking. If disease is severe, KARAMATE\* DRY FLO NEWTEC can be applied to bushes after harvest of all fruit

## LETTUCE

### Application Rate\* (low volume) and timing:

Crop	Disease	Rate Kg/ha	Timing
Field Grown Lettuce	Downy mildew	3.9	Apply from seedling stage onwards at 10-14 day interval. Do not apply within 14 days of harvest.
Protected Lettuce	Downy mildew	3.9	Only 2 applications can be made. Apply at planting out and a second application 10-14 days later. Do not apply within 21 days of harvest

\*For high volume applications (to run off) apply at 1.8 kg/1000 litres water.

## ORNAMENTALS

KARAMATE\* DRY FLO NEWTEC will give effective and reliable control on a wide range of ornamental flower diseases.

### Application Rate\* (high volume) and timing:

Crop	Disease	Rate kg/1000 litres water	Timing
Tulips	Tulip Fire	2.2	Apply when plants are 1-2.5 cm high and repeat at 10-14 day intervals. Always apply two post flowering sprays.
Chrysanthemums	Ray Blight	1.8	Commence spraying as soon as the crop is planted out and repeat at 7-10 day intervals. Two applications at 3-4 day intervals may be necessary if disease is present when treatment starts
Roses	Black Spot	1.8	Apply as soon as the disease appears, repeating 10-14 day intervals as necessary
	Rose Rust	1.8	
Carnations	Rust	1.8	
Geraniums	Rust	1.8	

\* A minimum of 2200 litres/ hectare should be applied to ensure good coverage.

ALWAYS READ THE LABEL USE PESTICIDES SAFELY

UN3077 MARINE POLLUTANT  
ENVIRONMENTALLY HAZARDOUS  
SUBSTANCES, SOLID, N.O.S (CONTAINS  
MANCOZEB 75%)



Approval Holder:

 **Dow AgroSciences Limited** Latchmore Court, Brand Street, Hitchin, Hertfordshire, SG5 1NH  
Tel 01462 457272 Fax 01462 426605

**24 hour Emergency Tel Number UK +44 1553 761251**

Distributed by:



Lodge Farm, Goat Hall Lane  
Galleywood, Chelmsford  
Essex CM2 8PH  
Tel: 01245 357109  
Fax: 01245 494165

\* KARAMATE and SYSTHANE are trademarks of Dow AgroSciences LLC

## SAFETY DATA SHEET

This safety data sheet does not form part of the label approved under the Control of Pesticides Regulations 1986. Following the instructions on the pesticide label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

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Product Name: **KARAMATE DRY FLOWABLE NEWTEC FUNGICIDE**

Issue Date: April 05

Ref: PSO5

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Dangerous components (see section 16 for complete R-phrases):**

				CAS	EC No
Mancozeb	75%	Xi, R37 R43		008018-01-7	235-654-8
		N;R50/53			
Inert ingredients		Balance			
Composition code		GF1541			

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### 3. HAZARDS IDENTIFICATION

Irritating to respiratory system. May cause sensitisation 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 persists.

#### **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 fire extinguishers. 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. Carbon disulphide. Nitrogen oxides. Sulphur oxides. Carbon oxides.

#### **Protection of Firefighters**

Wear protective clothing and use self-contained breathing apparatus.

#### **Additional Information**

Do not permit dust to accumulate. Dust layers can be ignited by spontaneous combustion or direct ignition sources. When suspended in air dust can pose an explosion hazard. 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. Proper ventilation is recommended to control dust formation. Transfer equipment should be grounded and bonded to avoid static charge and spark-proof equipment should be used. 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. This product is combustible and should not be exposed to flames or other ignition sources. Do not allow material to become wet or overheated in storage; decomposition, impaired activity or fire may result. 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**

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.

**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 EN374; 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: microgranules
Colour	: yellow to brown
Odour	: sulphur
Bulk density	: 0.60-0.70 kg/L
Melting point/range	: not applicable (decomposes)
Decomposition temp	: 192-204 deg.C
Vapour pressure	: negligible

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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.

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## 11. TOXICOLOGICAL INFORMATION

Assessment largely or completely based on data for similar material(s).

### 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. Essentially non-irritating to the skin.

### Sensitisation

Sensitising to guinea pig skin.

### Eye Contact

May cause eye irritation.

### Inhalation

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

The LC50 for inhalation in rats is >5.14 mg/L.

### Additional Information

Not carcinogenic. Not mutagenic. Not toxic for reproduction.

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## 12. ECOLOGICAL INFORMATION

Assessment largely or completely based on data for active ingredient

### Persistence and Degradability

Half-life in soils is dependent on soil type and conditions and is approximately 6-15 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<1.0mg/l).

### Avian Toxicity

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

### Additional Information

Non-toxic to bees.

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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.

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

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S  
(Mancozeb 75%)  
 Truck/Rail ADR/RID : 9 Label : 9  
 Classification Code : M7  
 Packing Group : III  
 Kemler Code : 90 UN Number : 3077  
 Tremcard Nr. CEFIC : 90GM7-III

**Sea**

Proper shipping name : ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE,SOLID,N.O.S (Mancozeb 75%)  
 Sea - IMO/IMDG : 9 UN Nr : 3077 Label : 9  
 Class  
 Packing Group : III EMS : MFAG :  
 Marine Pollutant : Y (Y/N)

**Air**

Proper shipping name : ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE,SOLID,N.O.S (Mancozeb)  
 Air-ICAO/IATA : 9 UN Nr : 3077 Label : 9  
 Class  
 Sub Class :  
 Packing Group : III Pack Instr. Passenger : 911  
 Pack Instr. Cargo : 911

Remarks : Sample shipment not allowed by mail

**15. REGULATORY INFORMATION**

Hazard Symbol : Xi – Irritant  
N – Dangerous for the environment  
 Risk Phrases : Irritating to respiratory system (R37).  
May cause sensitisation by skin contact (R43).  
Very toxic to aquatic organisms, may cause long-term adverse effects in the  
aquatic environment. (R50/53)  
 Safety Phrases : Keep out of reach of children (S2)  
Avoid contact with skin (S24).  
This material and its container must be disposed of in a safe way (S35)  
Wear suitable protective gloves (S37).  
Use appropriate containment to avoid environmental contamination(S57)  
 Refer to Product Label for full Local Regulatory Authority label precautions.

**16. OTHER INFORMATION \_****Risk-phrases in Section 2**

R37 – Irritating to respiratory system  
 R43 – May cause sensitisation by skin contact  
 R50/53 – Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic  
environment.

The information herein is given in good faith and to the best of our knowledge but no warranty,  
express or implied, is made.