FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE, as directed below:

<table>
<thead>
<tr>
<th>Crops</th>
<th>Maximum individual dose</th>
<th>Maximum number of applications</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter and spring wheat</td>
<td>1.0 litre product per hectare</td>
<td>2 per crop</td>
<td>Before GS 65</td>
</tr>
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<td>Winter and spring barley</td>
<td>1.0 litre product per hectare</td>
<td>2 per crop</td>
<td>Before GS 59</td>
</tr>
</tbody>
</table>

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

WEAR SUITABLE PROTECTIVE CLOTHING AND FACE/EYE PROTECTION

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

VERY TOXIC TO AQUATIC ORGANISMS, may cause long term adverse effects to the aquatic environment.

Do not contaminate surface waters or ditches with chemical or used container.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody. Direct spray away from water.

Very toxic to aquatic organisms, may cause long term adverse effects to the aquatic environment.

Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

Wear suitable protective clothing and face/eye protection.

This material and container must be disposed of in a safe way.

READ ALL PRECAUTIONS BEFORE USE.

PCS No. PM02020

PRECAUTIONS

WEAR SUITABLE PROTECTIVE CLOTHING AND FACE/EYE PROTECTION

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

VERY TOXIC TO AQUATIC ORGANISMS, may cause long term adverse effects to the aquatic environment.

Do not contaminate surface waters or ditches with chemical or used container.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing waterbody. Direct spray away from water.

THIS MATERIAL AND CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

STORAGE

Store in a suitable pesticide store.

Keep dry and protect from frost.
Mantra is a fungicide with protectant and systemic properties for use in winter and spring wheat, winter and spring barley and oats, for disease control as summarised below:

<table>
<thead>
<tr>
<th></th>
<th>Winter Wheat</th>
<th>Spring Wheat</th>
<th>Winter Barley</th>
<th>Spring Barley</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mildew</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Septoria tritici</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Septoria nodorum</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow rust</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Brown rust</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Net blotch</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhynchosporium</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyespot</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fusarium ear blight</td>
<td>GR</td>
<td>GR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cladosporium &amp; Botrytis sooty moulds</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C = Control; GR = Good Reduction; R = Reduction.

1 DIRECTIONS FOR USE

Apply as a MEDIUM spray as defined by BCPC.

1.1 Time of Application

Apply Mantra at the start of foliar disease attack subject to resistance management restrictions. A maximum of two applications can be made up to and including flowering half way in winter and spring wheat (before GS 65), and up to and including emergence of ear just complete in winter and spring barley and oats (before GS 59).

For optimum effect against eyespot in barley with Mantra apply between the leaf sheaths erect and second node detectable stages of the crop.

For protection against Fusarium ear blight and sooty mould on the ears of winter and spring wheat, apply Mantra during ear emergence.

For control of Septoria tritici and Septoria nodorum, treatment should be made after GS37 when weather favouring disease development has occurred. A follow-up treatment may be necessary if conditions continue to favour disease development.

1.2 Rate of Application

Apply 1 litre Mantra in a minimum of 200 litres of water per hectare. Increase the water volume where the crop is dense.

2 MIXING

Half fill the spray tank with clean water and start the agitation. SHAKE THE CONTAINER WELL before use and pour in the required amount of product. Rinse any empty containers thoroughly and add rinsings to the spray tank. Add the remainder of the water and continue agitation until spraying is completed.

3 MIXTURES WITH OTHER SPRAY CHEMICALS

Provided that all product recommendations are followed, Mantra is fully compatible with any of the following in two-way mix.

- Advance®
- Ally™ PX
- Duplosan™ New System CMPP
- Eagle
- Grasp™
- Jubilee™ WBS
- Meteor™

And in mix with

- Advance™ + Eagle
- Ally PX + Duplosan New System CMPP
- Compitox Plus + Jubilee
- Compitox Plus + Moddus
- Compitox Plus + Quantum
- Duplosan + Jubilee WBS
- Duplosan + Moddus 250 EC
- Duplosan + Quantum

NOTE: Compatibilities listed above have only been evaluated in wheat and/or barley.

4 RESISTANCE MANAGEMENT

- A maximum of 2 applications of any strobilurin type (QoI) product can be made to any cereal crop.

5 IMPORTANT NOTES

5.1 Avoid spray drift on to neighbouring crops.

5.2 Wash equipment thoroughly after use.

5.3 This product may cause damage to broad-leaved plant species.

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©3 = Registered trademark of E1 Du Pont de Nemours and Co Inc.
©4 = Registered trademark of Bayer CropScience
©5 = Registered trademark of Syngenta
©6 = Registered trademark of Syngenta
©7 = Registered trademark of Dow AgroScience
©8 = Registered trademark of NuFarm
The following does not form part of the product label under S.I. No. 83 of 2003:

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their mixing or use or the weather conditions during and after application, which may affect the performance of the material, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of the Unfair Contract Terms Act 1977 or any similar applicable law.

ADDITIONAL PRODUCT SAFETY INFORMATION

This section does not form part of the product label under S.I. No. 83 of 2003

Safety data sheet:

1. Substance/preparation and company name
   Product Name: Mantra
   PCS Number: PM02020
   Company: BASF Ireland
   Bracestown Business Park
   Clonee
   Co Meath, Ireland
   Tel: (01) 8255701
   Fax: (01) 8252038
   Emergency information: 0049 180 227 3112 (24 hours)

2. COMPOSITION/INFORMATION ON INGREDIENTS
   Use: Agricultural fungicide
   Formulation: A suspo-emulsion containing 125 g/litre (11.7% w/w) kresoxim-methyl, 125 g/litre (11.7% w/w) epoxiconazole and 150 g/litre (14.0% w/w) fenpropimorph
   Hazardous ingredients
<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Symbol</th>
<th>R Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kresoxim-methyl 143390-89-0 125 Xn (Harmful) N (Dangerous for the environment)</td>
<td>R40, R50/53</td>
<td></td>
</tr>
<tr>
<td>Epoxiconazole 106325-08-0 125 Xn (Harmful) N (Dangerous for the environment)</td>
<td>R40, R62, R63, R51/53</td>
<td></td>
</tr>
<tr>
<td>Fenpropimorph 67564-91-4 150 Xn (Harmful) N (Dangerous for the environment)</td>
<td>R22, R38, R51/53, R63</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION
   HARMFUL DANGEROUS FOR THE ENVIRONMENT
   Limited evidence of a carcinogenic effect (R40).
   Possible risk of impaired fertility (R62).
   Possible risk of harm to the unborn child (R63).
   Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment (R50/53).
4. FIRST AID MEASURES

General advice: If a person thinks that they have been exposed to this product and feels unwell, call a doctor or take them to a hospital. Remove all contaminated clothing. Keep them at REST away from source of contamination. DO NOT ALLOW smoking or eating. First aider should avoid becoming contaminated and wear protective clothing if necessary.

Eye contact: Immediately irrigate affected eyes for at least 15 minutes under flowing water, with eyelids open.

Skin contact: Immediately remove contaminated clothing and footwear and flush skin with plenty of water. Wash affected area thoroughly with soap and water as soon as possible.

Ingestion: DO NOT INDUCE VOMITING. Wash out mouth with clean water. Seek medical attention immediately.

Inhalation: Keep person calm, remove to fresh air.

Unconsciousness: If danger of loss of consciousness, place person in recovery position. Apply artificial ventilation if necessary, but care must be taken to avoid contamination of the first aider.

GUIDE TO PHYSICIAN – general advice

Active ingredient group: Epoxiconazole - triazole fungicide.
Kresoxim-methyl - strobilurin fungicide.
Fenpropimorph - morpholine fungicide.

Toxic effects: The material is of low toxicity.

Symptoms of accidental over exposure: There is no documentation of pathological effects in humans.

Any unusual symptoms which occur after exposure (by any mode of entry) should be recorded and reported to BASF at Cheadle.

(i) Treatment should be symptomatic and supportive based on judgement of physician.
(ii) If the product has been swallowed, gastric lavage with proper laryngeal control may be necessary. For ingestion of small quantities activated charcoal as an absorbent in a dosage of 30 grams in 100ml of water may be considered.
(iii) Maintenance of ventilation and oxygen therapy to be used as required.
(iv) If symptomatic therapy is indicated for control of restlessness, anxiety or convulsions, then Diazepam is recommended as the drug of choice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray, foam, dry chemical and carbon dioxide.

Possible harmful fumes in a fire: Carbon monoxide, nitrogen oxides, hydrogen chloride and hydrogen fluoride can be released. Avoid breathing smoke or fumes.

Protective equipment: Self-contained breathing apparatus and protective clothing.

Further information: Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters.

6. ACCIDENTAL RELEASE MEASURES

If spilled: Wear prescribed protective clothing. Clear spillage immediately. Contain spillage and absorb onto earth, sand or suitable absorbent material. Collect contaminated material and place in a marked container for disposal. Thoroughly wash area of spillage. Wash thoroughly immediately after handling spillages, or at once if contaminated.

Personal protective equipment: See Section 8.

Environmental precautions: Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environmental Protection Agency if it enters surface or ground waters. Keep people and animals away.

7. HANDLING AND STORAGE

Handling: No special measures are necessary. Avoid contact with skin and eyes. When using do not eat, drink or smoke.

Protection against fire and explosion: Incombustible.

Storage: Keep dry and frostproof in a suitable pesticide store. Store separately from food, drink and animal feed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

(i) PRECAUTIONS (from product label)

WEAR SUITABLE PROTECTIVE CLOTHING AND FACE/EYE PROTECTION KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP OUT OF REACH OF CHILDREN.

VERY TOXIC TO AQUATIC ORGANISMS. May cause long term adverse effects to the aquatic environment.
Do not contaminate surface waters or ditches with chemical or used container. DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing waterbody. Direct spray away from water.

THIS MATERIAL AND CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.
Keep out of reach of children.
Keep away from food, drink and animal feedingstuffs.

This material and container must be disposed of in a safe way. If swallowed, seek medical advice immediately and show this container or label.
Do not contaminate ponds, waterways or ditches with chemical or used container. Use appropriate containment to avoid environmental contamination. To avoid risks to man and the environment, comply with the instructions for use.

(ii) PERSONAL PROTECTIVE EQUIPMENT

In tests with a range of pesticide products, protective gloves made of nitrile rubber at least 0.5mm thick and 300mm long have been found to be the most suitable. Gloves made of viton, butyl rubber, neoprene and PVC can also offer good protection. Gloves must protect the whole hand and wrist and repeated use of these gloves depends upon spillages being washed off immediately. The gloves should be thoroughly washed after each operation. Decontaminate all personal protective equipment after use. When this is not possible dispose of as contaminated wastes.

(iii) OCCUPATIONAL EXPOSURE LIMITS (OESs)

Hazardous ingredients Long term exposure limit Short term exposure limit
Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid, suspo-emulsion
Colour: White
Odour: Slightly aromatic
Freezing/crystallisation temperature: -5.2 °C
Flash point: Non-flammable
Density: 1.04 – 1.10 kg/l
Solubility in water: Dispersible
pH value: 6.6 – 8.6 (10 g/l, 20 °C)

10. STABILITY AND REACTIVITY

Hazardous reactions: None provided product is correctly handled.
Substances to avoid: None.
Hazardous decomposition products: None if stored and handled correctly.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:
Ingestion: Low toxicity (LD₅₀ oral (rat): > 5000 mg/kg)
Skin contact: Unlikely to cause a problem (LD₅₀ dermal (rat): > 4000 mg/kg)
Inhalation: Unlikely to cause a problem (LC₅₀ inhalation (rat) 4 h: > 4.76 mg/l)
Eye contact: Not irritating
Sensitising potential: Possible sensitising effect

12. ECOLOGICAL INFORMATION

Ecotoxic effects: Rainbow trout (Oncorhynchus mykiss) LC₉₆ 96h: 1.78 mg/l
Algae EC/LC₅₀ (0-72 h): 1.01 mg/l
Daphnia EC/LC₉₆ (48 h): 0.45 mg/l

13. DISPOSAL CONSIDERATIONS

Leaking containers: Damaged or leaking containers must be dealt with as soon as noticed by sealing them in impermeable containers.
Disposal of used containers: Used, cleaned, crushed or punctured containers must be disposed of at licensed disposal sites.
Disposal of diluted pesticide: Advice for the disposal may be given by local authorities (Environmental Health Departments) who will recommend a waste disposal contractor. Do not re-use containers for any purpose.

14. TRANSPORT INFORMATION

UN Number: 3082
Packing Group: III
ROAD/RAIL
ADR/RID Class: 9
ADR/RID Item No: 11(c)
Environmentally hazardous substance, liquid, N.O.S. (contains kresoxim-methyl).
SEA
IMDG Class: 9
AIR
ICAO/ATA Class: 9
Pack sizes: 1 litre 5 litre
No per outer: 10 4

15. REGULATORY INFORMATION

This product is authorised, cleared, notified or granted permission to market in accordance with the European Communities (Authorisation, Placing on the market, Use and Control of Plant Protection Products) Regulations 2003 as amended, and is labelled in accordance with European Communities (Classification, Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations 2001.

R-phrases – see Section 3
S-phrases – see Section 8

16. OTHER INFORMATION

For further medical advice Doctors should contact the National Poisons Information Centre at Beaumont Hospital.
In an emergency further information can be obtained from the UK National Chemical Emergency Centre 0044 1865 407 333 (24 hours).
The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.
**FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE**, as directed below:

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PCS No. PM02020

---

**PRECAUTIONS**

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**STORAGE**

Store in a suitable pesticide store.

Keep dry and protect from frost.

---

**Authorization holder:**
BASF plc, P O Box 4, Earl Road, Cheadle Hulme, Cheshire, SK8 6QG

PCS No. PM02020

---

**Risk and Safety Information**

**Limited evidence of a carcinogenic effect.**

**Possible risk of impaired fertility.**

**Possible risk of harm to the unborn child.**

**Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.**

**Keep out of reach of children.**

**Keep away from food, drink and animal feedingstuffs.**

**Wear suitable protective clothing and face/eye protection.**

**This material and container must be disposed of in a safe way.**

**If swallowed, seek medical advice immediately and show this container or label.**

**Do not contaminate ponds, waterways or ditches with chemical or used container.**

**Use appropriate containment to avoid environmental contamination.**

**To avoid risks to man and the environment, comply with the instructions for use.**

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**For use only as a protectant and systemic fungicide for use on winter wheat, winter barley, spring wheat, spring barley, and oats**

**UN 3082**
Environmentally hazardous substance, liquid, N.O.S.
(contains kresoxim-methyl)
Marine pollutant

**1 litre e**
A suspo-emulsion containing
125 g/litre (11.7% w/w) kresoxim-methyl
plus 125 g/litre (11.7% w/w) epoxiconazole
plus 150 g/litre (14.0% w/w) fenpropimorph
Kresoxim-methyl is a strobilurin fungicide
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**Sourced by:**
BASF Ireland Limited
Bracetown Business Park
Bracetown
Clonee, Co. Meath
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Fax: 01 825 2038
Emergencies (24 hour)-
Tel: 049 80 225 3112
Technical Enquiries:
0845 602 2553 (office hours)

PCS No. PM02020

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