

ADAMA



Orius[®]



MAPP 17414

An oil in water emulsion containing 200 g/l (20% w/w) tebuconazole.

A broad-spectrum fungicide for the control of a wide range of diseases in wheat, barley, rye, oats and oilseed rape.

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



Warning

Causes serious eye irritation. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects. Contains 2-ethylhexyl-S-lactate and rosin. May produce an allergic reaction.

Keep out of reach of children. Obtain special instructions before use. Wash hands thoroughly after handling. Wear eye protection/protective gloves/face protection. IF IN EYES rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so - continue rinsing. Collect spillage. Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty, clean containers which can be disposed of as non-hazardous waste. **To avoid risks to human health and the environment, comply with the instructions for use.**

ADAMA AGRICULTURAL SOLUTIONS UK LTD

Unit 15, Thatcham Business Village, Colthrop Way, Thatcham, Berkshire, RG19 4LW
Telephone: (01635) 860555 Technical Helpline: (01635) 876622

For advice on medical emergencies, fires or major spills telephone
the National Chemical Emergency Centre on 01865 407333

Batch No: see packaging

**SHAKE WELL BEFORE USE
PROTECT FROM FROST**

5 litres e

To access the Safety Data Sheet for this product scan the QR code or use the weblink: <http://goo.gl/rrGVfQ> - Alternatively, contact your supplier.

Scan for
Safety Data
Sheet



FR97101715D/201605
R3:1.4 JUN16

This leaflet/booklet is part of the approved label.

For advice on medical emergencies, fires or major spills telephone
the National Chemical Emergency Centre on 01865 407333

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS A FUNGICIDE

Crop	Maximum individual dose (L product/ha)	Maximum total dose (L product/ha/crop)	Latest time of application
Wheat, barley, oats and rye	1.25 See Other Specific Restrictions	2.5	Before grain milky ripe stage (BBCH 69)
Oilseed rape	1.25 See Other Specific Restrictions	1.25	Up to 30% of pods reached final size (BBCH 73) and 56 days before harvest

Other Specific Restrictions:

1. Applications must only be made in the spring.
2. For use on cereals a maximum individual dose of 1.25 L/ha applies after BBCH 30 and before early boot stage (BBCH 39). A further maximum individual dose of 1.25 L/ha cannot be applied until after BBCH 40 stage.
3. For use on oilseed rape a single application must only be made after BBCH 20.
4. A minimum interval of 14 days applies between applications.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

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 FACE PROTECTION (FACESHIELD) when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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

TAKE OFF IMMEDIATELY all contaminated clothing. WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

Environmental Protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

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, unless a Local Environmental Risk Assessment for Pesticides 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 1m of the top of the bank of a static or flowing waterbody. Aim spray away from water.

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with HSE's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

Storage and Disposal

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

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

DIRECTIONS FOR USE

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

ORIUS® is a systemic fungicide. It is rapidly absorbed into the vegetative parts of the plant and then translocated through the plant. It controls a wide range of diseases in a wide range of crops.

For best disease control, apply as soon as disease appears, before spread to new growth.

Application to established diseases may be less effective.

RESTRICTIONS OR WARNINGS

After application to wheat, some transient leaf speckling may occur, and on oats some leaf reddening or scorch may be observed. These are normally outgrown and do not affect yield.

CONSULT PROCESSOR BEFORE USE ON CROPS GROWN FOR PROCESSING.

RESISTANCE

ORIOUS contains tebuconazole, a DMI fungicide (mode of action code G1 and classified as FRAC code 3).

To avoid resistance, do not apply repeated applications of ORIOUS alone on the same crop against the same disease. In such situations, use an appropriate tank-mixture or alternate with another fungicide with a different mode of action. Where resistance occurs, ORIOUS may not give adequate disease control. Consult the latest advice from FRAG-UK and FRAC regarding disease resistance strategies.

ORIOUS contains a DMI fungicide. Resistance to some DMI fungicides has been identified in *Septoria* leaf blotch (*Myzosphearella graminicola*) which may seriously affect the performance of some products. ORIOUS is not recommended for the control of this disease. For further advice on resistance management in DMIs, contact your agronomist or specialist advisor, and visit the Fungicide Resistance Action Group FRAG-UK website.

The efficacy of this product may be affected if strains of disease pathogens resistant or less sensitive occur at any time. As such occurrences cannot be predicted no responsibility can be accepted for the results obtained.

Strains of wheat powdery mildew with decreased sensitivity to triazoles are common in the UK. Where these occur or develop, ORIOUS may not give satisfactory control.

Strains of light leaf spot resistant to azole fungicides are known to exist. To avoid development of resistance, apply product protectively in response to disease forecasts. Where possible, when light leaf spot is present, use a fungicide with an alternative mode of action or mixes containing an alternative mode of action when targeting other diseases such as *Sclerotinia* at mid-flowering.

For current advice on resistance management, contact your agronomist or specialist advisor, and visit the FRAG-UK website.

DISEASES CONTROLLED

Wheat

Brown rust
Yellow rust
Powdery mildew (moderate control)
Septoria nodurum (glume blotch)
Ear diseases

Barley

Brown rust
Yellow rust
Powdery mildew (moderate control)
Rhynchosporium (moderate control)

Oats

Crown rust
Powdery mildew

Rye

Brown rust
Yellow rust
Powdery mildew
Rhynchosporium (moderate control)

Oilseed rape

Alternaria
Light leaf spot
Sclerotinia

CROP SPECIFIC INFORMATION

WHEAT, BARLEY, OATS AND RYE

Only one application should be applied to cereals (wheat, barley, oats and rye) before BBCH 40 (in the application window BBCH 30-39). If a second application is required before BBCH 40, an alternative product (not containing tebuconazole) should be used.

Disease	Rate of use (L/ha) and volume of water (L/ha)		Timing and Recommendations
	Maximum individual dose	Maximum total dose	
Ear disease complex on wheat	1.25 L/ha in 160-200 L water/ha.	2.5	Apply soon after ear emergence to give reduction of <i>Botrytis</i> , <i>Fusarium</i> ear blight and sooty moulds.
Yellow and brown rust on wheat, barley and rye			Apply at first sign of disease, this may be at any time from beginning of stem elongation (GS 30) onwards. A 2nd application may be required if disease pressure remains high. There should be a minimum interval of 2 weeks. The 2nd application should not be applied before early boot stage: flag leaf sheath extending (GS 41).
Powdery mildew in wheat, barley and rye			Apply at first sign of disease, this may be at any time from beginning of stem elongation (GS 30) onwards. A 2nd application may be required if disease pressure remains high. There should be a minimum interval of 2 weeks. The 2nd application should not be applied before early boot stage: flag leaf sheath extending (GS 41). Please refer to resistance section for more details.
Powdery mildew and crown rust in oats			Apply at first sign of disease, this may be at any time from beginning of stem elongation (GS 30) onwards. A 2nd application may be required if disease pressure remains high. There should be a minimum interval of 2 weeks. The 2nd application should not be applied before early boot stage: flag leaf sheath extending (GS 41).
Rhynchosporium in barley and rye and net blotch in barley			Apply at first sign of disease, this may be at any time from beginning of stem elongation (GS 30) onwards. A 2nd application may be required if disease pressure remains high. There should be a minimum interval of 2 weeks. The 2nd application should not be applied before early boot stage: flag leaf sheath extending (GS 41).

OILSEED RAPE (spring application only)			
Disease	Rate of use (L/ha) and volume of water (L/ha)		Timing and Recommendations
	Maximum individual dose	Maximum total dose	
Light leaf spot	1.25 L/ha in 160-200 L water/ha.	1.25	Apply 1.25 L/ha as disease appears in the spring, from the onset of stem extension. This application will also give some reduction of ringspot if present at time of application.
<i>Alternaria</i> spp (dark leaf and pod spot)			Apply 1.25 L/ha as disease appears i.e. when black pin-head spots first appear on the pods.
<i>Sclerotinia</i> stem rot			Apply 1.25 L/ha at early to full flower. Will give some reduction of <i>Sclerotinia</i> stem rot.

If disease pressure remains high, application of an alternative effective product may be required to maintain control and to comply with the timing restrictions necessary for ORIUS.

WATER VOLUME

Apply in 160–200 L water/ha. In cereals, in denser crops, a water volume of 300 L/ha may be required. For oilseed rape, a water volume of 400 L/ha may be required in dense crops.

Apply as a medium spray as defined by BCPC.

FOLLOWING CROPS

There are no restrictions on following crops.

MIXING AND SPRAYING

Before spraying it is important to check all hoses, filters and nozzles, and to ensure that the sprayer is clean and correctly calibrated to give an accurate application at the correct volume. Half-fill sprayer tank with clean water. Add the required amount of ORIUS to the water and commence agitation. On emptying the container, RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely. Add the remainder of the water whilst continuing to agitate the mixture until spraying is complete. Maintain agitation during the mixing process and continue until the spraying is complete. Do not leave in spray tank for long periods without using.

DISCLAIMER/CONDITIONS OF SUPPLY

The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label.

Marketed by:

Adama Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village
Colthrop Way, Thatcham, Berkshire RG19 4LW
Telephone: 01635 860555
Technical Helpline: 01635 876622
www.adama.com
Email: ukenquiries@adama.com

ORIOUS® is a registered trademark of a company of ADAMA group
© Adama Agricultural Solutions UK Ltd

Orius®

ADAMA

MAPP 17414

An oil in water emulsion containing 200g/L (20 % w/w) tebuconazole.

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 FACE PROTECTION (FACESHIELD) when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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

TAKE OFF IMMEDIATELY all contaminated clothing.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

Environmental Protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

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, unless a Local Environmental Risk Assessment for Pesticides 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 1m of the top of the bank of a static or flowing waterbody. Aim spray away from water.

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with HSE's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

Storage and Disposal

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

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. DO NOT RE-USE CONTAINER for any purpose. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS A FUNGICIDE

Crops: Wheat, barley, oats, rye and oilseed rape.

Maximum individual dose (L product/ha)

Maximum total dose (L product/ha/crop)

Latest time of application

Full details are given in the information box within the attached leaflet.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.