

This leaflet/booklet is part of the approved product label

IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE

Crops	Maximum individual dose (litres product/ha)	Maximum total dose (litres product/ha)	Latest timing
Winter and spring wheat, rye and triticale	1.0	2.0	Up to and including flowering (anthesis) just complete (GS 69)
Winter and spring barley and oats	1.0	2.0	Up to and including ear emergence just complete (GS 59)

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

CORTEZ (MAPP 13932)

A suspension concentrate formulation containing 125 g/l epoxiconazole.
Also contains solvent naphtha and alkoxyated fatty alcohol.



HARMFUL

**LIMITED EVIDENCE
OF A CARCINOGENIC EFFECT**
**POSSIBLE RISK
OF IMPAIRED FERTILITY**
**POSSIBLE RISK
OF HARM TO THE UNBORN CHILD**



**DANGEROUS FOR
THE ENVIRONMENT**

**VERY TOXIC TO
AQUATIC
ORGANISMS,
MAY CAUSE LONG-TERM
ADVERSE EFFECTS IN THE
AQUATIC ENVIRONMENT**

WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

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

IF SWALLOWED, DO NOT INDUCE VOMITING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

TO AVOID RISKS TO MAN AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE

SAFETY PRECAUTIONS

Operator Protection

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

WEAR SUITABLE PROTECTIVE GLOVES 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.

WASH HANDS AND EXPOSED SKIN before meals and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

Environmental Protection

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 water-body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment 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 PSD'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 AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

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 safely.

DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

Store in a suitable pesticide store. Keep dry and protect from frost.

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.

1. RESTRICTIONS

Avoid drift onto neighboring crops, as damage may occur, particularly to broad-leaved plants.

Malting barley

CORTEZ is accepted by the Brewers and Licensed Retailers Association to be used on Malting barley. Application should be before the start of ear emergence. Avoid overlapping spray swaths.

Resistance

CORTEZ contains a DMI fungicide. Resistance to some DMI fungicides has been identified in Septoria leaf-blotch (*mycosphaerella graminicola*) which may seriously affect the performance of some products. For further advice on resistance management in DMI's, 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, CORTEZ may not give satisfactory control.

2. DISEASE CONTROL

Disease	Crop
Powdery mildew	Barley, wheat, triticale, rye, oats
Rhynchosporium	Barley, rye
Net blotch	Barley
Brown rust	Barley, wheat, triticale, rye
Yellow rust	Barley, wheat, triticale, rye
Septoria nodorum	Wheat, triticale
Septoria tritici	Wheat, triticale
Eyespot (reduction)	Winter barley, winter wheat, winter oats, triticale, rye
Fusarium ear blight (good reduction)	Wheat
Sooty moulds (reduction)	Wheat

3. CROP SPECIFIC INFORMATION

CORTEZ can be safely used on all varieties of wheat, barley, oats, rye and triticale.

For best disease control, apply as soon as disease is seen. Some specific recommendations can be seen below.

Disease	Specific recommendations
Fusarium ear blight and sooty moulds	Apply during ear emergence.
Mildew	For better mildew control when disease is established, apply with a specific mildew fungicide.
Septoria tritici and nodorum	Apply when disease is present, or conditions favour disease appearing. This is generally after the 3 rd node detectable stage. A follow up treatment may be required.
Eyespot	For optimum control apply between leaf sheath erect stage and 2 nd node detectable.

Rate of Use

Apply 1.0 l/ha in 200-400 l water/ha. Use the higher volume of water for dense crops, or for the second application.

Apply as a medium spray as defined by BCPC.

4. MIXING AND APPLICATION

Half fill the spray tank with clean water and begin agitation. Add the required quantity of CORTEZ and add the remainder of the water.

Continue agitation until spraying is completed.

Wash out sprayer thoroughly after use.

5. COMPATIBILITY

For an up to date compatibility list please speak to Makhteshim-Agan (UK) Limited or your local distributor.

CONDITIONS OF SUPPLY

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during and after application which may affect the performance of the goods, 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 or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

Marketing Organisation:

Makhteshim Agan (UK) Limited
Unit 16 Thatcham Business Village
Colthrop Way, Thatcham
Berkshire RG19 4LW

Tel: 01635 860555

Technical Helpline: 01635 876622

www.mauk.co.uk Email: admin@mauk.co.uk

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MATERIAL SAFETY DATA SHEET

CORTEZ MAPP 13932

This Safety Data Sheet does not form part of the product label approved under the Plant Protection Product Regulations 1995

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

Trade name : CORTEZ
Type of product : Fungicide
Chemical formula : Epoxiconazole : C17H13ClFN3O
Chemical description : (2RS,3RS)--(2-chlorophenyl)-2-(4-fluorophenyl)-2-[(1H-1,2,4-triazol-1-yl) methyl] oxirane
Use : Fungicide
Company identification : Irvita Plant Protection N.V.
 Pos Cabai Office Park, Unit 13,
 P.O.Box 403
 Curaçao Netherlands Antilles
 Tel: 599-9-738-4096 / 738-4040 Fax: 599-9-738-4005
Emergency phone nr : +972-3-6106666 Subscription no. 36789 (Makhteshim)

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.

Chemical name	Value(s)	CAS No	EC No	Index No	Classification
Epoxiconazole	125 g/l	133855-98-8	406-850-2	613-175-00-9	Carc. Cat. 3; R40 Repr. Cat. 3; R62 Repr. Cat. 3; R63 N; R51-53
Alkoxylyated fatty alcohol	>10%	68002-96-0	---	---	T; R23, N; R50
Solvelso 200	>10%	64742-94-5	265-198-5	649-424-00-3	Xn; R65

3. HAZARDS IDENTIFICATION

Human health hazards : Limited evidence of a carcinogenic effect.
 Possible risk of impaired fertility.
 Possible risk of harm to the unborn child.

Environmental hazard : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Inhalation : Remove victim to fresh air. Keep victim warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If you feel unwell, seek medical advice.

Ingestion : Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Consult a doctor.

- Skin contact** : Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse. Consult a doctor.
- Eye contact** : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Immediately consult an eye specialist.
- Note to physician** : No specific antidote known. Treat symptomatically and give supportive therapy.

5. FIRE-FIGHTING MEASURES

- Extinguishing media** : Water spray , water fog , foam .
- Special procedures** : Fight fires from a protected location. Dike fire control water for later disposal.
- Special exposure hazards** : Thermal decomposition generates : carbon monoxide , carbon dioxide , nitrogen oxides , hydrogen chloride , HF .
- Protection against fire** : Wear suitable protective clothing. Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Use appropriate protection (see section 8).
- Environmental precautions**: Dispose of this material and its container at hazardous or special waste collection point, In accordance with national and regional regulations . If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.
- After spillage and/or leakage**: In the event of minor spillage: Absorb in sand or other inert material . Use appropriate container to avoid environmental contamination.
In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

7. HANDLING AND STORAGE

- Handling** : Do not breathe fumes. Avoid contact with skin and eyes.
- Storage** : Keep locked up Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place (<50 °C)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Industrial hygiene** : Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Wash hands thoroughly after handling. Wash clothing before re-using.

Personal protection

- **Respiratory protection** : During spraying wear suitable respiratory equipment.
- **Skin protection** : Wear protective clothing and chemical resistant boots.
- **Hand protection** : Wear suitable gloves.
- **Eye protection** : Safety goggles or face shield

Occupational Exposure Limits

- TLV** : Wear suitable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Colour	: White
Odour	: characteristic
pH value	: 6.5-8.5 at a temperature of 20 °C
Molecular weight	: Epoxiconazole : 329.8
Melting point [°C]	: Epoxiconazole : 136.1-137.6°C
Density	: 1.03 - 1.05
Viscosity	: 467 cP Surface tension = 65.7 mN/m.
Solubility in water	: Dispersible
Flash point [°C]	: >100
Explosion limits	: Not explosive

10. STABILITY AND REACTIVITY

Physico-chemical stability	: Stable under normal conditions.
Hazardous decomposition	: Thermal decomposition generates : carbon dioxide , carbon monoxide , nitrogen oxides , hydrogen chloride , HF ,
Hazardous reactions	: Avoid contact with : strong bases and strong bases
Hazardous Polymerization	: Will not occur.
Conditions to avoid	: Protect from (sun)light , open flame and sources of heat . Decomposes upon heating.

11. TOXICOLOGICAL INFORMATION

Toxicity information	: No toxicological information is known on the product. For a similar formulation containing 125 g/l Epoxiconazole:
Rat oral LD50 [mg/kg]	: > 2000
Rat dermal LD50 [mg/kg]	: > 2000
Rat inhalation LC50 [mg/l/4h]	: > 5.00
Dermal irritation (rabbit)	: Not irritant
Eyes irritation (rabbit)	: Not irritant
Sensitization	: Guinea pig maximization test: Non sensitizer
Carcinogenicity	: Cat.3 : Limited evidence of a carcinogenic effect.
Reproductive toxicity	: Cat.3 : Possible risk of impaired fertility. Cat.3 : Possible risk of harm to the unborn child.

12. ECOLOGICAL INFORMATION

Ecological effects	: No ecological information is known on the product. For a similar formulation :
96 H-LC50 - Rainbow trout	: 7.8 [mg/l]
96 H-LC50 - Carp	: 11.4 [mg/l]
48 H-LC50-Daphnia magna	: 17 [mg/l]
72 H-EbC50 - Algae	: 0.28 [mg/l]
72 H-ErC50 - Algae	: 7 [mg/l]

13. DISPOSAL CONSIDERATIONS

Disposal : Dispose in a safe manner in accordance with local/national regulations.

14. TRANSPORT INFORMATION

- UN No. : 3082
- Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (125 g/l EPOXICONAZOLE)
- Packing group : III
- Class : 9
- H.I. nr : 90
- IMDG-Marine pollution : No

15. REGULATORY INFORMATION

EU Classification : This product is provisionally labelled by the supplier in accordance to the EU regulations;

Symbol(s)



: Xn: Harmful. N: Dangerous for the environment

R Phrase(s)

- : R40 - Limited evidence of a carcinogenic effect.
- : R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- : R62 - Possible risk of impaired fertility.
- : R63 - Possible risk of harm to the unborn child.

S Phrase(s)

- : S13 - Keep away from food, drink and animal feedingstuffs.
- : S35 - This material and its container must be disposed of in a safe way.
- : S36/37 - Wear suitable protective clothing and gloves.
- : S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.
- : S62 - If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Recommended uses and restrictions : None.

Text of R-phrases in heading 2

: R23 - Toxic by inhalation.

R40 - Limited evidence of a carcinogenic effect.

R50 - Very toxic to aquatic organisms.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R62 - Possible risk of impaired fertility.

R63 - Possible risk of harm to the unborn child.

R65 - Harmful : may cause lung damage if swallowed.

Print date : 27 / 1 / 2008

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