FUNGICIDE FOR AGRICULTURAL USE

TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE. THIS PRODUCT WHEN STORED IN ITS UNOPENED ORIGINAL CONTAINER AWAY FROM DIRECT SUNLIGHT AND IN A COOL, DRY PLACE WILL BE FIT FOR USE FOR AT LEAST 24 MONTHS.

WARNINGS: Folicur 250 EC is a de-methylation inhibiting (DMI) fungicide and should be used in a resistance management programme with other suitable fungicides. DO NOT USE brackish, poor quality, hard or alkaline water to make up spray mixture as this can adversely affect efficacy of the product. When sprayed allow a minimum of 6 hours before rainfast.

Harvest Intervals: Allow 14 days between last application and harvest for beans and potatoes, 7 days for tomatoes, and 28 days for coffee and paprika. Do not harvest or graze barley and wheat within 77 days of application and allow 42 days between application and feeding of groundnut and bean hay. It is not necessary to add a wetter when applying **Folicur 250 EC** to tobacco, beans, potatoes, tomatoes, coffee, soybeans, barley, paprika and wheat.

PRECAUTIONS:

1. **HANDLE WITH CARE**; avoid contact; poisonous by swallowing, inhalation and contact with the skin.
2. **WEAR SUITABLE PROTECTIVE CLOTHING** including rubber gloves, rubber boots and overalls.
3. Remove protective clothing on completion of spraying and wash hands and face thoroughly with soap and water.
4. **KEEP OUT OF REACH OF CHILDREN**.
5. **KEEP APART FROM FOOD AND FOODSTUFFS**.
6. Store in original container and **KEEP UNDER LOCK AND KEY**.
7. **DANGEROUS TO FISH**.
8. RE-ENTRY: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

BAYER

Folicur®

250 EC

Reg. No. 91-B-60-1

CONTENTS: 250 mℓ

CAUTION

HARMFUL IF SWALLOWED

COMPOSITION:	**Mass/Volume**
tebuconazole	250 g/ℓ
inert ingredients	750 g/ℓ

Chemical Group : triazole

A SYSTEMIC FUNGICIDE FOR THE CONTROL OF DISEASES ON THE CROPS INDICATED

SYMPTOMS OF POISONING: No specific symptoms of intoxication are to be expected.

FIRST AID: If contamination is likely, STOP WORK. Remove contaminated clothing and wash skin and hair thoroughly. If swallowed, induce vomiting without delay by tickling the back of the throat. CALL A DOCTOR AND SHOW THIS LABEL.

NOTE TO PHYSICIAN: There is no known specific antidote. Treat symptomatically.

WARRANTY: Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

Packed For: Bayer Zimbabwe (Pvt) Ltd P.O. Box AY 78, Amby, Harare, Zimbabwe.
Tel. 487211/487245/7 Fax. 487242 Emergency Tel. +27(21) 931-6129
Manufactured by Bayer (Pty) Ltd

Date of Manufacture : See on pack
Batch No.: See on pack

CropLife Zimbabwe

Bayer CropScience

Code:80223994

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name	FOLICUR 250 EW
Product code (UVP)	04407040, 81711690

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use	Fungicide

1.3 Details of the supplier of the safety data sheet

Supplier	Bayer (Pty) Ltd. 27 Wrench Road, P.O. Box 143 1600 Isando South Africa
Telephone	+27 (011) 921 5911
Telefax	+27 (011) 921 5766
Responsible Department	QHSE - Nigel, South Africa +27 (011) 365 8675 (during business hours only)

1.4 Emergency telephone no.

Emergency telephone no.	+27 (0861) 555 777 (Western Cape Poisons Helpline)
Global Incident Response Hotline (24h)	+1 (760) 476 3964 (Company 3E for Bayer CropScience)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Reproductive toxicity: Category 2
H361d Suspected of damaging the unborn child.

Acute toxicity: Category 4
H302 Harmful if swallowed.
H332 Harmful if inhaled.

Serious eye damage: Category 1
H318 Causes serious eye damage.

Specific target organ toxicity - single exposure: Category 3
H335 May cause respiratory irritation.

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Tebuconazole
- N,N-Dimethyl decanamide

Signal word: Danger

Hazard statements

H302 + H332	Harmful if swallowed or if inhaled.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/ physician.
P501	Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Emulsion, oil in water (EW)
Tebuconazole 250 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification Regulation (EC) No 1272/2008	Conc. [%]
Tebuconazole	107534-96-3	Acute Tox. 4, H302 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410	25,8
N,N-Dimethyl decanamide	14433-76-2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412	> 25

Further information

Tebuconazole	107534-96-3	M-Factor: 1 (acute), 10 (chronic)

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Water spray, Carbon dioxide (CO2), Foam, Sand

5.2 Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Tebuconazole	107534-96-3	0,2 mg/m3 (SK-ABS)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

Respiratory protection Respiratory protection is not required under anticipated circumstances of exposure.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when

	contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent) and faceshield (conforming to EN166, Field of Use = 3 or equivalent).
Skin and body protection	Wear standard coveralls and Category 3 Type 6 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	Liquid, clear to slightly turbid
Colour	light yellow
Odour	aromatic
pH	5,0 - 8,0 at 1 % (23 ℃) (deionized water)
Flash point	> 172 ℃
Ignition temperature	345 ℃
Density	ca. 0,97 g/cm³ at 20 ℃
Water solubility	emulsifiable
Partition coefficient: n-octanol/water	Tebuconazole: log Pow: 3,7 N,N-Dimethyldecanamide: log Pow: 2,46
Viscosity, kinematic	ca. 34,1 mm2/s at 20 ℃
Surface tension	28,6 mN/m at 20 ℃
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition	350 ℃, Heating rate: 3 K/min Stable under normal conditions. Exothermic decomposition.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Store only in the original container.
10.6 Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	LD50 (Rat) > 200 - < 2.000 mg/kg
Acute inhalation toxicity	LC50 (Rat) ca. 5 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol.
Acute dermal toxicity	LD50 (Rat) > 4.000 mg/kg
Skin irritation	No skin irritation (Rabbit)
Eye irritation	Risk of serious damage to eyes. (Rabbit)
Sensitisation	Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Magnusson & Kligman test

Assessment repeated dose toxicity

Tebuconazole did not cause specific target organ toxicity in experimental animal studies.
N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
N,N-Dimethyldecanamide was not genotoxic in a battery of in vitro tests.

Assessment carcinogenicity

Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.
N,N-Dimethyldecanamide is not considered carcinogenic.

Assessment toxicity to reproduction

Tebuconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebuconazole is related to parental toxicity.
N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

Assessment developmental toxicity

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.
N,N-Dimethyldecanamide did not cause developmental toxicity in rats and rabbits.

Further information

Irritating to respiratory system.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 9,28 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 7,3 mg/l Exposure time: 48 h
Chronic toxicity to aquatic invertebrates	NOEC (Daphnia (water flea)): 0,010 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient tebuconazole.
Toxicity to aquatic plants	EC50 (Raphidocelis subcapitata (freshwater green alga)) 3,51 mg/l Growth rate; Exposure time: 72 h
	(Lemna gibba (gibbous duckweed)) 0,237 mg/l Growth rate; Exposure time: 7 d The value mentioned relates to the active ingredient tebuconazole.

12.2 Persistence and degradability

Biodegradability	Tebuconazole: Not rapidly biodegradable N,N-Dimethyldecanamide: rapidly biodegradable
Koc	Tebuconazole: Koc: 769

12.3 Bioaccumulative potential

Bioaccumulation	Tebuconazole: Bioconcentration factor (BCF) 35 - 59 Does not bioaccumulate. N,N-Dimethyldecanamide: Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil	Tebuconazole: Slightly mobile in soils N,N-Dimethyldecanamide: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	Tebuconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). N,N-Dimethyldecanamide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information	No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging Not completely emptied packagings should be disposed of as hazardous waste.

SECTION 14: TRANSPORT INFORMATION

SANS 10231

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

IMDG

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

14.6 Special precautions for user
See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Further information

WHO-classification: II (Moderately hazardous)

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate (ATE)
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.