



# Universalis®

syngenta®

## GROUP 11 M04 FUNGICIDES

F

**Product registration number:** MAPP 20603

**UFI:** 5MQU-62XS-N00Q-M00Q

A suspension concentrate containing 93.5 g/l of azoxystrobin and 500 g/l of folpet for the use as a foliar fungicide on wheat, durum wheat and triticale.

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

**In case of toxic or transport emergency ring**  
**01484 538444 (24hr)**

Syngenta UK Limited  
CPC4, Capital Park, Fulbourn, Cambridge, CB21 5XE  
Tel: 01223 883400

**PROTECT FROM FROST**  
**SHAKE WELL BEFORE USE**

### SAFETY PRECAUTIONS

#### (a) Operator protection

WASH CONCENTRATE from skin or eyes immediately.

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

IF YOU FEEL UNWELL, seek medical advice immediately (show label where possible).

KEEP OUT OF THE REACH OF CHILDREN

Do not eat, drink or smoke when using the product.

#### (b) Environmental protection

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies as specified for the crop.

HORIZONTAL BOOM SPRAYERS MUST BE FITTED WITH THREE STAR DRIFT REDUCTION TECHNOLOGY. Low drift spraying equipment must be operated according to the specific conditions stated in the official three star rating for that equipment as published on HSE Chemicals Regulation Directorate's website. Maintain three star operating conditions until 30 m from the top of the bank of any surface water bodies. DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within the distance specified for the crop to the top of the bank of a static or flowing water body, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water. NOTE: BUFFER ZONES OF MORE THAN 5 M CANNOT BE REDUCED UNDER THE LOCAL ENVIRONMENT RISK ASSESSMENT FOR PESTICIDES (LERAP) SCHEME.

The statutory buffer zone must be maintained and the distance recorded in Section A of the LERAP record form. The LERAP record form must be kept available for three years.

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.

#### (c) Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place. RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing devise or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.



This product label is compliant with the CPA Voluntary Initiative (VI) guidance

L1105793 GBRI/07B PPE 4186393

KEEP 50x20mm AREA CLEAR FOR BARCODE

L & PPE numbers must be kept close to this unprinted barcode area, with a white background behind them

# 5 litres

Product names marked ® or ™, the ALLIANCE FRAME the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

**UNIVERSALIS®**

Universalis is a Suspension concentrate containing 93.5 g/l of Azoxystrobin and 500 g/l of Folpet

**Warning**

**Harmful if swallowed.**

**Harmful if inhaled.**

**Suspected of causing cancer.**

**Very toxic to aquatic life with long lasting effects.**

Obtain special instructions before use.

Avoid breathing mist or vapours.

Wash skin thoroughly after handling.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

Collect spillage.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except empty clean containers which can be disposed of as non-hazardous waste.

Repeated exposure may cause skin dryness or cracking.

Contains 1,2-benzisothiazol-3-one and folpet. May produce an allergic reaction.

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

**MAPP:** 20603 **UFI:** 5MQU-62X5-N00Q-M0Q0

**IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL FUNGICIDE

Crop	Max. individual dose (L/ha)	Max. number of treatments (per crop)	Latest time of application	Aquatic Buffer Zone (m)
Winter and Spring Wheat, Winter and Spring Triticale, Winter and Spring Durum Wheat	1.5	1	End of flowering (GS 69) and no later than 42 days before harvest.	6

**Other Specific Restrictions:**

This product must not be applied via hand-held equipment.

To reduce the risk of resistance developing in target diseases the total number of applications of product containing QoI fungicides made to any cereal crop must not exceed two.

**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.**

This leaflet is part of the approved Product Label.

## **DIRECTIONS FOR USE SECTION**

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

### **GENERAL INFORMATION**

Universalis contains azoxystrobin and folpet, two active substances with different modes of action. Azoxystrobin is a broad spectrum fungicide from the strobilurin family and the Quinone outside inhibitor (QoI) group (MoA group 3, FRAC group 11). It has systemic, translaminar and protectant properties. Azoxystrobin inhibits fungal respiration. Its mode of action is different from the action of other fungicidal groups. It should always be used in mixture with fungicides with other modes of action. Folpet is a multi-site contact activity fungicide (MoA group 4, FRAC group M). It has a non-specific mode of action which inhibits cell division in a broad range of crop pathogens.

Universalis shows good crop safety, disease control and maintenance of green leaf area which result in significant yield benefits.

Universalis is best used as a protective treatment or during early stages of disease establishment.

Universalis is approved for application to wheat, triticale and durum wheat up to the end of flowering and no later than 42 days before harvest.

Effectiveness using three star drift reduction technology may be reduced.

### **DISEASES CONTROLLED**

#### **Winter and Spring Wheat**

Septoria leaf blotch (*Zymoseptoria tritici*) - Moderate control  
Yellow rust (*Puccinia striiformis f.sp. tritici*) - Moderate control  
Brown rust (*Puccinia triticina*) - Moderate control

#### **Winter and Spring Triticale**

Septoria leaf blotch (*Zymoseptoria tritici*) - Moderate control  
Yellow rust (*Puccinia striiformis*) - Moderate control  
Brown rust (*Puccinia triticina*) - Moderate control

#### **Winter and Spring Durum Wheat**

Septoria leaf blotch (*Zymoseptoria tritici*) - Moderate control  
Yellow rust (*Puccinia striiformis f.sp. tritici*) - Moderate control  
Brown rust (*Puccinia triticina*) - Moderate control

### **CROP SPECIFIC INFORMATION**

#### **WINTER AND SPRING WHEAT, WINTER AND SPRING DURUM WHEAT AND TRITICALE**

##### **Crops and Growing Conditions**

Universalis can be used on all varieties of durum wheat, triticale and wheat. Apply Universalis under good growing conditions with adequate soil moisture. Avoid poor growing conditions which may give less reliable results.

##### **Timing**

Always inspect crops to assess disease development immediately before spraying. Best results will be achieved from applications made as a protectant treatment or in the earliest stages of disease development following a disease risk assessment or the use of appropriate decision support systems.

## **Rate of Use**

Apply Universalis at 1.5 litres per hectare, with a maximum number of 1 application per crop. Universalis should be applied to the cereal crop from BBCH 30 (stem elongation) to BBCH 69 (end of flowering) and no later than 42 days before harvest.

## **Following Crops**

There are no restrictions on succeeding crops in a normal rotation.

## **MIXING AND SPRAYING**

### **MIXING PROCEDURE**

Make sure the sprayer is set to give an even application at the correct volume. Fill the spray tank with half the required volume of water and begin agitation. Add the required amount of Universalis to the spray tank and allow to disperse before adding any other product. Add the rest of the water and continue to agitate the mixture thoroughly. Always agitate during spraying.

### **SPRAY VOLUME AND APPLICATION**

Apply Universalis in a recommended 150 - 400 litres of water per hectare through conventional crop spraying equipment. The higher spray volumes are recommended where the crop is dense or disease pressure/risk is high to ensure good penetration to the lower leaves and stem bases. Disease control may be compromised by reducing water volumes, where good spray coverage is difficult to achieve. A spray pressure of 2-3 bars is recommended.

### **AFTER SPRAYING**

Immediately after use, clean the spray equipment thoroughly. Drain the system completely and rinse spray tank, boom and nozzles three times with clean water until the foam and all traces of product have been removed.

## **Resistance Management**

Universalis contains Azoxystrobin, a member of the QoI cross resistance group 11 and Folpet, a member of the multi-site contact activity group M04. Universalis should be used preventatively and should not be relied on for its curative potential. Use Universalis as part of an Integrated Crop Management (ICM) strategy incorporating other methods of control. You must not apply more than two foliar applications of QoI containing products to any cereal crop. There is a significant risk of widespread resistance occurring in *Septoria tritici* populations in the UK. Failure to follow resistance management action may result in reduced levels of disease control.

To ensure good performance in situations where resistance is present, it is essential to adhere to dosages, spray timings and recommendations by manufacturers and FRAC.

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

## **COMPANY ADISORY INFORMATION**

### **Section 6 of the Health and Safety at Work Act**

### **Additional Product Safety Information**

(This section does not form part of the product label under the Plant Protection Products Regulations 1995.)

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has 'Extension of Use' approval or is otherwise permitted under the Plant Protection Products Regulations.

The information on this label is based on the best available information including data from test results.

## Safety Data Sheet V1.1

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/ UNDERTAKING

#### 1.1 Product Identifier

Trade name: UNIVERSALIS

Design code: A12916B

Product Registration Number: MAPP 20603

Unique Formula Identifier (UFI): 5MQU-62X5-N00Q-M0Q0

#### 1.2 Relevant Identified Uses of the substance or mixture and uses advised against

Use of the Substance/Mixture: Fungicide

Recommended restrictions on use: professional use

#### 1.3 Details of the supplier of the safety data sheet

Company: Syngenta UK Ltd, CPC4, Capital Park, Fulbourn, Cambridge, CB21 5XE

Telephone: +44 (0) 1223 883400

Telefax: +44 (0) 1223 882195

E-mail address: customer.services@syngenta.com

#### 1.4 Emergency telephone number

Emergency phone No.: +44 1484 538444

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4

H302: Harmful if swallowed.

Acute toxicity, Category 4

H332: Harmful if inhaled.

Carcinogenicity, Category 2

H351: Suspected of causing cancer.

Short-term (acute) aquatic hazard, Category 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1

H410: Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

#### Hazard pictograms



#### Signal Word

Warning

#### Hazard

H302+H332 Harmful if swallowed or if inhaled.

#### Statements

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

#### Supplemental

EUH066 Repeated exposure may cause skin dryness or cracking.

#### Hazard

#### Statements

#### Precautionary

P201 Obtain special instructions before use.

#### Statements

P261 Avoid breathing mist or vapours.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

<b>Precautionary Statements</b>	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
	+P312	
	P391	Collect spillage.
	P501	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.

#### Hazardous components which must be listed on the label:

- folpet (ISO)
- azoxystrobin (ISO)

#### Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one, folpet (ISO). May produce an allergic reaction.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
folpet (ISO)	133-07-3 205-088-6 613-045-00-1	Acute Tox. 4; H332 Eye Irrit. 2; H319 Skin Sens. 1; H317 Carc. 2; H351 Aquatic Acute 1; H400 M-Factor (Acute aquatic toxicity): 10	>= 30 - < 50
azoxystrobin (ISO)	131860-33-8 607-256-00-8	Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 2.5 - < 10
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M-Factor (Acute aquatic toxicity): 1 specific concentration limit Skin Sens. 1; H317 >= 0.05 %	>= 0.025 - < 0.05
Substances with a workplace exposure limit :			
propane-1,2-diol	57-55-6		>= 1 - < 10

For explanation of abbreviations see section 16.

## **SECTION 4. FIRST-AID MEASURES**

### **4.1 Description of first aid measures**

**General advice:** Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

**If inhaled:** Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

**In case of skin contact:** Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

**In case of eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

**If swallowed:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.

### **4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms:** Nonspecific. No symptoms known or expected.

### **4.3 Indication of any immediate medical attention and special treatment needed**

**Treatment:** There is no specific antidote available. Treat symptomatically.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### **5.1 Extinguishing media**

Suitable extinguishing media:

Extinguishing media - small fires - Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires - Alcohol-resistant foam or Water spray

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

### **5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire-fighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Exposure to decomposition products may be a hazard to health.

### **5.3 Advice for firefighters**

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions: Refer to protective measures listed in sections 7 and 8.

### **6.2 Environmental precautions**

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

### **6.3 Methods and material for containment and cleaning up**

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

### **6.4 Reference to other sections**

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

## SECTION 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Advice on safe handling: No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

### 7.3 Specific end use(s)

Specific use(s): For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
folpet (ISO)	133-07-3	TWA	0.4 mg/m <sup>3</sup>	Syngenta
azoxystrobin (ISO)	131860-33-8	TWA	4 mg/m <sup>3</sup>	Syngenta
propane-1,2-diol	57-55-6	TWA (particles)	10 mg/m <sup>3</sup>	GB EH40
		TWA (Total vapour and particles)	150 ppm 474 mg/m <sup>3</sup>	GB EH40

### 8.2 Exposure controls

#### Engineering Measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

#### Personal protective equipment

**Eye protection:** No special protective equipment required.

#### Hand protection

Material: Nitrile rubber

Break through time: > 480 min

Glove thickness: 0.5 mm

Remarks: Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use.

Wear as appropriate: Impervious clothing

Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Suitable respiratory equipment: Respirator with a half face mask.



The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

Appearance: suspension

Colour: white to beige

Odour: Strong pungent

Odour Threshold: No data available

pH: 4 - 8. Concentration: 1 %w/v (aqueous suspension)

Melting point/range: No data available

Boiling point/boiling range: No data available

Flash point: Method: Pensky-Martens closed cup, does not flash

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper explosion limit / Upper flammability limit: No data available

Lower explosion limit / Lower flammability limit: No data available

Vapour pressure: No data available

Relative vapour density: No data available

Density: 1.28 g/cm<sup>3</sup> (20 °C)

Water solubility: completely miscible

Solubility in other solvents: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: > 650 °C

Decomposition temperature: No data available

Viscosity, dynamic: 145 - 415 mPa.s (20 °C), 106 - 291 mPa.s (40 °C)

Viscosity, kinematic: No data available

Explosive properties: Not explosive

Oxidizing properties: The substance or mixture is not classified as oxidizing

### **9.2 Other information**

Surface tension: 47.3 mN/m, 21 °C

Particle size: No data available

## **SECTION 10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

None reasonably foreseeable.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Hazardous reactions: No dangerous reaction known under conditions of normal use.

### **10.4 Conditions to avoid**

Conditions to avoid: No decomposition if used as directed.

### **10.5 Incompatible materials**

Materials to avoid: None known.

### **10.6 Hazardous decomposition products**

Hazardous decomposition products: No hazardous decomposition products are known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Information on likely routes of exposure: Ingestion, Inhalation, Skin contact, Eye contact

#### Acute toxicity

##### **Product:**

Acute oral toxicity: LD50 (Rat, male and female): 1,889 mg/kg  
Acute inhalation toxicity: Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.  
Acute toxicity estimate: 3.22 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method  
Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

##### **Components:**

###### **folpet (ISO):**

Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity  
Acute inhalation toxicity: LC50 (Rat): 1.89 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

###### **azoxystrobin (ISO):**

Acute oral toxicity: LD50 (Rat, male and female): > 5,000 mg/kg  
Acute inhalation toxicity: LC50 (Rat, female): 0.7 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
LC50 (Rat, male): 0.9 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

###### **1,2-benzisothiazol-3(2H)-one:**

Acute oral toxicity: LD50 (Rat, male): 670 mg/kg  
Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

#### Skin corrosion/irritation

##### **Product:**

Species: Rabbit  
Result: No skin irritation  
Result: Repeated exposure may cause skin dryness or cracking.

##### **Components:**

###### **folpet (ISO):**

Species: Rabbit  
Result: No skin irritation

###### **azoxystrobin (ISO):**

Species: Rabbit  
Result: No skin irritation

###### **1,2-benzisothiazol-3(2H)-one:**

Species: Rabbit  
Result: Mild skin irritation

### **Serious eye damage/eye irritation**

#### **Product:**

Species: Rabbit

Result: No eye irritation

#### **Components:**

##### **folpet (ISO):**

Species: Rabbit

Result: Eye irritation

##### **azoxystrobin (ISO):**

Species: Rabbit

Result: No eye irritation

##### **1,2-benzisothiazol-3(2H)-one:**

Species: Rabbit

Result: Risk of serious damage to eyes.

### **Respiratory or skin sensitisation**

#### **Product:**

Test Type: Buehler Test

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

#### **Components:**

##### **folpet (ISO):**

Species: Guinea pig

Result: May cause sensitisation by skin contact.

##### **azoxystrobin (ISO):**

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

##### **1,2-benzisothiazol-3(2H)-one:**

Result: Probability or evidence of skin sensitisation in humans

### **Germ cell mutagenicity**

#### **Components:**

##### **folpet (ISO):**

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

##### **azoxystrobin (ISO):**

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

##### **1,2-benzisothiazol-3(2H)-one:**

Germ cell mutagenicity- Assessment: Weight of evidence does not support classification as a germ cell mutagen.

### **Carcinogenicity**

#### **Components:**

##### **folpet (ISO):**

Carcinogenicity - Assessment: Limited evidence of carcinogenicity in animal studies

##### **azoxystrobin (ISO):**

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

### **Reproductive toxicity**

#### **Components:**

##### **folpet (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

##### **azoxystrobin (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

## STOT - repeated exposure

### Components:

#### azoxystrobin (ISO):

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Product:

Toxicity to fish:	LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 0.29 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 ( <i>Daphnia magna</i> (Water flea)): 2.6 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants:	ErC50 ( <i>Raphidocelis subcapitata</i> (freshwater green alga)): 8.7 mg/l Exposure time: 72 h NOEC ( <i>Raphidocelis subcapitata</i> (freshwater green alga)): 0.29 mg/l End point: Growth rate Exposure time: 72 h

#### Components:

#### folpet (ISO):

Toxicity to fish:	LC50 ( <i>Salmo trutta</i> (brown trout)): 0.098 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 ( <i>Daphnia magna</i> (Water flea)): 0.68 mg/l Exposure time: 48 h

#### azoxystrobin (ISO):

Toxicity to fish:	LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 0.47 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 ( <i>Americamysis</i> ): 0.055 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants:	ErC50 ( <i>Pseudokirchneriella subcapitata</i> (green algae)): 2 mg/l Exposure time: 96 h NOEC ( <i>Pseudokirchneriella subcapitata</i> (green algae)): 0.038 mg/l End point: Growth rate Exposure time: 96 h ErC50 ( <i>Navicula pelliculosa</i> (Freshwater diatom)): 0.301 mg/l Exposure time: 96 h

M-Factor (Acute aquatic toxicity): 10

Toxicity to microorganisms:	IC50 ( <i>Pseudomonas putida</i> ): > 3.2 mg/l Exposure time: 6 h
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Toxicity to fish (Chronic toxicity):	NOEC: 0.16 mg/l Exposure time: 28 d Species: <i>Oncorhynchus mykiss</i> (rainbow trout) NOEC: 0.147 mg/l Exposure time: 33 d Species: <i>Pimephales promelas</i> (fathead minnow)
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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):	NOEC: 0.044 mg/l Exposure time: 21 d Species: <i>Daphnia magna</i> (Water flea) NOEC: 0.0095 mg/l
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Exposure time: 28 d  
Species: *Americamysis*

M-Factor

(Chronic aquatic toxicity): 10  
**1,2-benzisothiazol-3(2H)-one:**  
Toxicity to fish :

LC50 (Oncorhynchus mykiss (rainbow trout)): 2.18 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 2.94 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants:

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.15 mg/l  
Exposure time: 72 h

M-Factor

(Acute aquatic toxicity): 1  
Toxicity to fish (Chronic toxicity):

NOEC: 0.3 mg/l  
Exposure time: 28 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity):

NOEC: 1.7 mg/l  
Exposure time: 21 d  
Species: *Daphnia* (water flea)

## 12.2 Persistence and degradability

### Components:

#### **folpet (ISO):**

Biodegradability: Result: Readily biodegradable.  
Stability in water: Degradation half life: < 0.05 d  
Remarks: Product is not persistent.

#### **azoxystrobin (ISO):**

Biodegradability: Result: Not readily biodegradable.  
Stability in water: Degradation half life: 214 d  
Remarks: The substance is stable in water.

#### **1,2-benzisothiazol-3(2H)-one:**

Biodegradability : Result: rapidly degradable

## 12.3 Bioaccumulative potential

### Components:

#### **folpet (ISO):**

Bioaccumulation: Remarks: Does not bioaccumulate.  
Partition coefficient: n-octanol/water: log Pow: 3.017 (20 °C)

#### **azoxystrobin (ISO):**

Bioaccumulation: Remarks: Does not bioaccumulate.

#### **1,2-benzisothiazol-3(2H)-one:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

## 12.4 Mobility in soil

### Components:

#### **folpet (ISO):**

Distribution among environmental compartments: Remarks: Moderately mobile in soils  
Stability in soil: Dissipation time: 4.3 d  
Percentage dissipation: 50% (DT50)  
Remarks: Product is not persistent.

**azoxystrobin (ISO):**

Distribution among environmental compartments: Remarks: Azoxystrobin has low to very high mobility in soil.

Stability in soil: Dissipation time: 80 d

Percentage dissipation: 50 % (DT50)

Remarks: Product is not persistent.

**12.5 Results of PBT and vPvB assessment****Product:**

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:****folpet (ISO):**

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**azoxystrobin (ISO):**

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**1,2-benzisothiazol-3(2H)-one:**

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**12.6 Other adverse effects****Product:**

Endocrine disrupting potential: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**SECTION 13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

**Product:** Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

**Contaminated packaging:** Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****14.1 UN number**

**ADR:** UN 3082

**RID:** UN 3082

**IMDG:** UN 3082

**IATA:** UN 3082

**14.2 UN proper shipping name**

**ADR:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(AZOXYSTROBIN AND DIFENOCONAZOLE)

**RID:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(AZOXYSTROBIN AND DIFENOCONAZOLE)

**IMDG:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(AZOXYSTROBIN AND DIFENOCONAZOLE)

**IATA:** Environmentally hazardous substance, liquid, n.o.s.  
(AZOXYSTROBIN AND DIFENOCONAZOLE)

### 14.3 Transport hazard class(es)

**ADR:** 9

**RID:** 9

**IMDG:** 9

**IATA:** 9

### 14.4 Packing group

#### **ADR**

Packing group: III

Classification Code: M6

Hazard Identification Number: 90

Labels: 9

Tunnel restriction code: (-)

Remarks: This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### **RID**

Packing group: III

Classification Code: M6

Hazard Identification Number: 90

Labels: 9

Remarks: This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### **IMDG**

Packing group: III

Labels: 9

EmS Code: F-A, S-F

Remarks: This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### **IATA (Cargo)**

Packing instruction (cargo aircraft): 964

Packing instruction (LQ): Y964

Packing group: III

Labels: Miscellaneous

Remarks: This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

#### **IATA (Passenger)**

Packing instruction (passenger aircraft): 964

Packing instruction (LQ): Y964

Packing group: III

Labels: Miscellaneous

Remarks: This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids.

### 14.5 Environmental hazards

#### **ADR**

Environmentally hazardous: yes

#### **RID**

Environmentally hazardous: yes

## **IMDG**

Marine pollutant: yes

### **IATA (Passenger)**

Environmentally hazardous: yes

### **IATA (Cargo)**

Environmentally hazardous: yes

## **14.6 Special precautions for user**

Remarks: This product should not be transported in Sealed freight containers (Transport Equivalent Units). Vented packages may not be transported by air.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture**

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17): Conditions of restriction for the following entries should be considered: Number on list 3

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation: Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) E1 ENVIRONMENTAL HAZARDS

### **15.2 Chemical Safety Assessment**

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## **SECTION 16. OTHER INFORMATION**

### **Full text of H-Statements**

H302: Harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation

H331: Toxic if inhaled.

H332: Harmful if inhaled.

H351: Suspected of causing cancer.

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.

### **Full text of other abbreviations**

Acute Tox.: Acute toxicity

Aquatic Acute: Acute aquatic toxicity

Aquatic Chronic: Chronic aquatic toxicity

Carc.: Carcinogenicity

Eye Dam.: Serious eye damage

Eye Irrit.: Eye irritation



Skin Irrit.:	Skin irritation
Skin Sens.:	Skin sensitisation
GB EH40:	UK. EH40 WEL - Workplace Exposure Limits
Syngenta:	Syngenta Occupational Exposure Limit
GB EH40 / TWA:	Long-term exposure limit (8-hour TWA reference period)
Syngenta / TWA:	Time weighted average

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

## Further information

### Classification of the mixture:

Acute Tox. 4	H302
Acute Tox. 4	H332
Carc. 2	H351
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

### Classification procedure:

On basis of test data.
Calculation method.
Calculation method
On basis of test data.
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is

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