



syngenta®

Dispersible concentrate (DC) formulation containing 95 g/l azoxystrobin.

A systemic strobilurin fungicide for the control of Fusarium patch, Take-all patch, Brown patch, Leaf spot / Melting out, Rust diseases, moderate control of anthracnose and reduction of Type 2 Fairy Rings.



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

HERITAGE MAXX

FOR PROFESSIONAL USE ONLY

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

Contains 95 g/l azoxystrobin as a dispersible concentrate.

Danger.

Harmful if swallowed.

May damage the unborn child. Suspected of damaging fertility.

Very toxic to aquatic life with long lasting effects.

Keep out of reach of children.

Avoid release to the environment.

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

Obtain special instructions before use.

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

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Collect spillage.

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



MAPP 18246 PCS No. 05063

3 litres

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



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

IMPORTANT INFORMATION

FOR USE ONLY AS A HORTICULTURAL FUNGICIDE

For use on Managed Amenity Turf

Maximum individual dose: 2.5l product per hectare

Maximum number of treatments: Four per annum

Latest time of application: Not applicable

Aquatic Buffer Zone: 5 metres

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

(a) 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 when handling the concentrate and or handling contaminated surfaces. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) and SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

WASH HANDS before eating and drinking and after work.

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

(b) 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.

RISK TO NON-TARGET INSECTS OR ARTHROPODS. See Directions for Use.

For use in the UK

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



DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m 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 1 m of the top of the bank of a static or flowing water body. Aim spray away from water.

For use in Ireland

To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

(c) Storage and disposal

Store away from seeds, fertilizers and composts.

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

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

In case of toxic or transport emergency ring +44 (0)1484 538444 any time

PROTECT FROM FROST. SHAKE WELL BEFORE USE

| Approval Holder and UK Marketing Company | Irish Marketing Company |
|---|--|
| Syngenta UK Limited CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE Tel +44 (0) 1223 883400 | Syngenta Ireland Ltd. Block 6, Cleaboy Business Park, Old Kilmeaden Road, Waterford, Ireland. Tel: 051 377203 |

DIRECTIONS FOR USE

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.

RESTRICTIONS

Prevent spray drift on to surrounding areas. Do not apply when ground is frozen or during drought.

Avoid spraying within 5m of the field boundary to reduce effects on non-target insects or other arthropods.

Do not use HERITAGE MAXX® where there is a risk of spray drift onto neighbouring apple, crab apple, cherry, plum trees or privet. DO NOT use equipment used to apply HERITAGE MAXX to treat these crops as unacceptable damage may occur.

DISEASES CONTROLLED

HERITAGE MAXX is an effective systemic fungicide, providing control of Fusarium patch disease caused by *Microdochium nivale*, Take-all patch disease caused by *Gaeumannomyces graminis*, Brown patch caused by *Rhizoctonia solani*, Leaf spot / Melting out caused by *Drechslera poae*, Rust diseases caused by *Puccinia spp.* and *Uromyces spp.*, moderate control of Anthracnose caused by *Colletotrichum graminicola* and reduction of Type 2 Fairy rings* in established managed amenity turf.

* QUALIFIED MINOR USE RECOMMENDATION. On the basis of limited evidence HERITAGE MAXX will reduce the effects of Type 2 Fairy Rings.

HERITAGE MAXX contains the strobilurin fungicide azoxystrobin, which is a QOI fungicide.

RESISTANCE MANAGEMENT

Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. To ensure best control, HERITAGE MAXX should be applied at full use rates following the guidance below.

Do not apply more than 2 sequential applications of HERITAGE MAXX or any product containing a QoI fungicide.

Alternate with a fungicide having a different mode of action.

Do not apply more than 4 applications per year of any product containing a QoI fungicide. For further advice on resistance management in turf contact your agronomist or specialist advisor and visit the FRAG-UK website.

CROP SPECIFIC INFORMATION

Best results will be achieved when HERITAGE MAXX is applied as a preventive treatment at the very earliest stages of disease symptom expression.

Begin applications when conditions are favourable for disease infection, at the beginning of disease symptom expression.

Fusarium patch (*Microdochium nivale*), Anthracnose (*Colletotrichum graminicola*), Brown patch (*Rhizoctonia solani*), Leaf spot / Melting out (*Drechslera poae*), Rust diseases (*Puccinia spp.* and *Uromyces spp.*)

Use HERITAGE MAXX in a disease control programme, alternating applications of HERITAGE MAXX with fungicides with different modes of action, for example BANNER MAXX II (MAPP 18038, PCS No. 05461) or INSTRATA ELITE (MAPP 17976, PCS No. 05399).

The total number of HERITAGE MAXX applications applied per annum must not exceed a third of the total number of fungicide applications, up to a maximum of 4 applications. Do not apply more than 2 sequential HERITAGE MAXX applications.

Take-all patch (*Gaeumannomyces graminis*)

Apply HERITAGE MAXX as a preventative treatment at the full label use rate. Begin application when conditions are favourable for disease infection prior to disease symptom development. Make 2 applications 14 days apart in the spring and 2 applications 14 days apart in the autumn.

In addition, utilise management practices, which encourage healthy turf and reduce turf stress.

Type 2 Fairy rings

On the basis of limited evidence, HERITAGE MAXX will reduce the effects of Type 2 Fairy rings.

For best results applications should be made with the addition of a wetting agent to sufficiently wet the soil to allow the HERITAGE MAXX to get to the basidiomycete.

Timing

Repeat applications at minimum intervals of 2 weeks. The maximum number of HERITAGE MAXX applications per annum is 4 OR as described in the Resistance Management section of this label.

Rate of Use

Apply 2.5 litres HERITAGE MAXX in 125 - 1000L of water per hectare. For spot treatments, use 25 mls HERITAGE MAXX per 8 - 10 L of water. For optimum control of take-all patch, repeat application at the minimum interval.

MIXING AND SPRAYING

HERITAGE MAXX fungicide may be applied with all types of spray equipment commonly used for making ground applications. Do not apply through ULV sprayers.

Ensure that the sprayer is clean and set to give the correct volume and an even deposit. Do not allow spray mixture to stand overnight or for prolonged periods. Make up only the amount of spray required for immediate use.

Thoroughly wash all spraying equipment immediately after use using two or three rinses of clean water. Do not use silicone- based products with HERITAGE MAXX.

Tractor-mounted/trailed sprayers: Half fill the spray tank with water and begin agitation. Add the required quantity of HERITAGE MAXX to the tank and complete filling. Continue agitation until spraying is completed.

Hand-held sprayers: Half fill the spray tank with clean water and add the required quantity of HERITAGE MAXX to the tank. Complete filling, mix thoroughly and use immediately.

Section 6 of the Health and Safety at Work Act **Additional Product Safety Information (UK Only)**

(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.

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

1.1 Product identifier

Trade name: HERITAGE MAXX

Design code: A13972A

Product Registration number: MAPP 18246; PCS No. 05063

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

Use of the Substance/Mixture: Fungicide

1.3 Details of the supplier of the safety data sheet Company

Authorisation Holder: Syngenta UK Limited
CPC4, Capital Park, Fulbourn,
Cambridge CB21 5XE, United Kingdom

Telephone: +44 (0) 1223 883400

Telefax: +44 (0) 1223 882195

E-mail address of person responsible for the SDS: customer.services@syngenta.com

Marketing Company: Syngenta Ireland Limited
Block 6 Cleaboy Business Park, Old Kilmeaden Road,
Waterford, Ireland

Telephone: (051) 377203

Telefax: (051) 354748

E-mail address of person responsible for the SDS: cropsales.ie@syngenta.com

1.4 Emergency telephone number

Emergency telephone number +44 (0) 1484 538444

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.

Reproductive toxicity, Category 1B H360Df: May damage the unborn child.
Suspected of damaging fertility.

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: Regulation (EC) No. 1272/2008

Hazard pictograms



| | | |
|--------------------------------|--|--|
| Signal Word | Danger | |
| Hazard Statements | H302 H360Df | Harmful if swallowed. May damage the unborn child. Suspected of damaging fertility. |
| Supplemental Hazard Statements | H410 EUH401 | Very toxic to aquatic life with long lasting effects. To avoid risks to human health and the environment comply with the instructions for use. |
| Precautionary Statements | P102 P270 P273 P201 P280 P301+P312 P308+P313 P391 P501 | Keep out of reach of children. Do not eat, drink or smoke when using this product. Avoid release to the environment. Obtain special instructions before use. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell IF exposed or concerned: Get medical advice/attention. Collect spillage. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste. |

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

Hazardous components

| Chemical Name | CAS-No., EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|--|--|---|--------------------------|
| tetrahydro-2-furylmethanol | 97-99-4 202-625-6 603-061-00-7 01-2119968921-26 | Eye Irrit. 2; H319 Repr. 1B; H360Df | >= 70 - < 90 |
| azoxystrobin | 131860-33-8 607-256-00-8 | Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410 | >= 3 - < 10 |
| poly(oxy-1,2-ethanediy), alphaphosphono-omega- [2,4,6-tris(1-phenylethyl) phenoxy]- | 90093-37-1 618-446-5 | Eye Irrit.2; H319 | >= 3 - < 10 |

| Chemical Name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|---|--|-------------------------|--------------------------|
| poly(oxy-1,2-ethanediy), -[2,4,6-tris(1-phenylethyl)phenyl]- - hydroxy- | 99734-09-5 | Aquatic Chronic 3; H412 | >= 2.5 - < 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 Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control centre or physician, or going for treatment.

Inhalation: 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

Use 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 Specific hazards arising from the substance or mixture

Specific hazards during firefighting: 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 materials 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.

Further information on storage stability: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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 |
|---------------------|---|-------------------------------|---------------------|----------|
| Further information | Substances used as active ingredients in pesticides are listed under their systematic chemical names and/or their (ISO) common names. These may sometimes be used as parts of the names of proprietary pesticide formulations. In all cases, the exposure limit applies to the specific active ingredient in the workplace atmosphere and not the formulation as a whole. | | | |
| azoxystrobin | 131860-33-8 | TWA | 4 mg/m ³ | Syngenta |

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 : 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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 : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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: | liquid |
| Colour: | light amber to amber |
| Odour: | Faint aromatic |
| Odour Threshold: | No data available |
| pH: | 2 - 7 |
| | Concentration: 1 % w/v |
| Melting point/range: | No data available |
| Boiling point/boiling range: | No data available |
| Flash point: | 75 °C(1033 hPa) 75 °C Method: Setaflash closed cup |
| 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: | 1.08 g/cm ³ |
| Solubility(ies) | |
| Solubility in other solvents: | No data available |
| Partition coefficient: | |
| n-octanol/water: | No data available |
| Auto-ignition temperature: | 265 °C |
| Decomposition temperature: | No data available |
| Viscosity | |
| Viscosity, dynamic: | 42.1 mPa.s (20 °C) 29.1 mPa.s (40 °C) |
| Explosive properties: | Not explosive |
| Oxidizing properties: | The substance or mixture is not classified as oxidizing. |

9.2 Other Information

Surface tension: 40.3 mN/m, 20 °C

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, female): 1,714 mg/kg
Acute inhalation toxicity : LC50 (Rat, male and female): > 6.4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
LD50 (Rat, male and female): > 5,000 mg/kg

Acute dermal toxicity :

Components:

azoxystrobin:

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

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-

Acute oral toxicity : LD50 Oral (Rat): 5,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Product:

Species: Rabbit
Result: No skin irritation

Components:

azoxystrobin:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit

Result: No eye irritation

Components:

tetrahydro-2-furylmethanol:

Result: Eye irritation

azoxystrobin:

Species: Rabbit

Result: No eye irritation

poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Species: Rabbit

Result: Eye irritation

Respiratory or skin sensitisation

Product:

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Components:

azoxystrobin:

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

azoxystrobin:

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

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

Germ cell mutagenicity- Assessment: In vitro tests did not show mutagenic effects

Carcinogenicity

Components:

azoxystrobin:

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

Reproductive toxicity

Components:

tetrahydro-2-furylmethanol:

Reproductive toxicity - Assessment: Clear evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

azoxystrobin:

Reproductive toxicity - Assessment: No toxicity to reproduction

Repeated dose toxicity

Components:

azoxystrobin:

Remarks: No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Product:

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (rainbow trout)): 2.73 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 4.20 mg/l
Exposure time: 48 h

Toxicity to algae: ER50 (*Pseudokirchneriella subcapitata* (green algae)): 12.02 mg/l
Exposure time: 72 h
EbC50 (*Pseudokirchneriella subcapitata* (green algae)): 2.12 mg/l
Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity: Very toxic to aquatic life.

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

Components:

azoxystrobin:

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.47 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 0.28 mg/l
Exposure time: 48 h
EC50 (*Americamysis bahia* (Mysid shrimp)): 0.055 mg/l
Exposure time: 96 h

Toxicity to algae: ER50 (*Pseudokirchneriella subcapitata* (green algae)): 2 mg/l
Exposure time: 96 h
NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0.038 mg/l
Exposure time: 96 h
ER50 (*Navicula pelliculosa* (Freshwater diatom)): 0.301 mg/l
Exposure time: 96 h

M-Factor (Acute aquatic toxicity): 10

Toxicity to bacteria: IC50 (*Pseudomonas putida*): > 3.2 mg/l
Exposure time: 6 h

Toxicity to fish (Chronic toxicity): NOEC: 0.16 mg/l
Exposure time: 28 d
Species: *Oncorhynchus mykiss* (rainbow trout)
NOEC: 0.147 mg/l
Exposure time: 33 d
Species: *Pimephales promelas* (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity):

NOEC: 0.044 mg/l

Exposure time: 21 d

Species: *Daphnia magna* (Water flea)

NOEC: 0.0095 mg/l

Exposure time: 28 d

Species: *Americamysis bahia* (Mysid shrimp)

M-Factor (Chronic aquatic toxicity):

10

poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Toxicity to microorganisms: EC50 (*Pseudomonas putida*): > 1,000 mg/l

Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.

Chronic aquatic toxicity: This product has no known ecotoxicological effects.

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

Toxicity to fish: LC50 (*Danio rerio* (zebra fish)): 21 mg/l

Exposure time: 96 h

Ecotoxicology Assessment

Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

azoxystrobin:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 214 d

Remarks: The substance is stable in water.

12.3 Bioaccumulative potential

Components:

azoxystrobin:

Bioaccumulation : Remarks: Does not bioaccumulate.

12.4 Mobility in soil

Components:

azoxystrobin:

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:

azoxystrobin:

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).

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

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:

Additional ecological information : Classification of the product is based on the summation of the concentrations of classified components.

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.

Waste Code: uncleaned packagings. 150110, packaging containing residues of or contaminated by dangerous substances

SECTION 14. TRANSPORT INFORMATION

14.1 UN number

ADN : UN 3082

ADR : UN 3082

RID : UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)

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

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

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

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

14.3 Transport hazard class(es)

ADN : 9

ADR : 9

RID : 9

IMDG : 9

IATA : 9

14.4 Packing group

ADN

Packing group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

ADR

Packing group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (E)

RID

Packing group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

IMDG

Packing group : III

Labels : 9

EmS Code : F-A, S-F

IATA

Packing instruction (cargo aircraft): 964

Packing instruction (passenger aircraft): 964

Packing instruction (LQ) : Y964

Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

| | Quantity 1 | Quantity 2 |
|--------------------------|------------|------------|
| E1 ENVIRONMENTAL HAZARDS | 100 t | 200 t |

Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Use plant protection products safely. Always read the label and product information before use.

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

- H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H360Df: May damage the unborn child. Suspected of damaging fertility.
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
Eye Irrit.: Eye irritation
Repr.: Reproductive toxicity

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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture: Classification procedure:

| | | |
|-------------------|--------|------------------------|
| Acute Tox. 4 | H302 | On basis of test data. |
| Repr. 1B | H360Df | Calculation method |
| Aquatic Acute 1 | H400 | On basis of test data. |
| Aquatic Chronic 1 | H410 | On basis of test data. |

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 not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.