

L1009599-ZIMB/05T - PPE 4051865

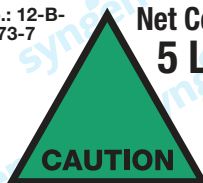
Amistar Top[®]

LOGO/NOMBRE DEL PRODUCTO

325SC

syngenta[®]

Reg. No.: 12-B-
61-7-B-73-7



HARMFUL IF SWALLOWED

Net Content:
5 Litres

Before using this product read
and understand the entire label.

TO CAUSE A HAZARD IN THE USE,
STORAGE OR DISPOSAL OF THIS
SUBSTANCE IS AN OFFENCE.

Registered by: Syngenta Agro Services
P.O. Box 1088, Harare, Suite ZA
Julia's Parade, Sam Levy's Village
Borrowdale, Tel.: 0772 402 477

Emergency Call Number:
Swiss Toxicological Information Centre
(24 h) +41 44 251 51 51

Shelf-Life: Minimum 2 years if stored in a
cool dry place in original unopened container.

Date of manufacture / Batch No.:
Please refer to inkjet print.

Manufacturer: Syngenta Crop
Protection AG, Basle, Switzerland

® Registered Trademark of
a Syngenta Group Company

Distributed by:

| Composition | (mass/volume) |
|-------------------------|---------------|
| Azoxystrobin | 200 g/Lt |
| Difenoconazole | 125 g/Lt |
| Inert ingredients | up to 1 Lt |
| Chemical groups: | |
| Azoxystrobin | Strobilurin |
| Difenoconazole | Triazole |

A broad spectrum fungicide for use to control mainly foliar fungal diseases such as Alternaria leaf spot and frog-eye in tobacco; early blight in potatoes and tomatoes; frog-eye in soybeans; rust, angular leaf-spot and anthracnose in French beans; ascochyta leaf-spot and powdery mildew in mange-tout peas and snap peas; leaf spot in maize / babycorn / sweetcorn; and powdery mildew in peppers.

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

TM



CAUTION



S-PAC

DESCRIPTION:
LBL S PANEL RH 130X140 MM

SCALE:
1:1

ISSUE NO:
SYN003

ISSUE DATE:
30.07.2009

256206

Please remove before printing.
Retirez s'il vous plaît avant l'impression
Por favor, eliminar antes de imprimir.

7. KEEP APART FROM FOOD, FOODSTUFFS, seeds and fertilizers.
8. Store in original container in a cool, dry place and KEEP UNDER LOCK AND KEY.
9. Use only on the crops for which the product is registered.
10. Avoid drift onto adjacent crops or soil.
11. After use, wash sprayer thoroughly and dispose of washings in a safe place e.g. on waste ground. DO NOT contaminate water supplies.
12. Triple rinse then puncture empty container and place in a secure disposal site. DO NOT use for any other purpose.

SYMPTOMS OF POISONING

There are no specific symptoms of poisoning known for this compound.

FIRST AID

Eye contact: Rinse eyes with clean water for several minutes. Go to a doctor.

Skin contact: Remove contaminated clothing immediately; wash affected skin with soap and water. Go to a doctor if skin is affected.

If inhaled: Move to fresh air.

If swallowed: DO NOT induce vomiting. Seek medical advice immediately.

Note: Never give anything by mouth to an unconscious patient.

NOTE TO PHYSICIAN

If the amount of chemical ingested is judged to be less than a lethal dose, observe the patient and treat symptomatically. If gastric lavage is considered necessary, prevent aspiration of gastric contents. Consider administration of activated charcoal and a laxative. No specific antidote is known. Apply symptomatic therapy.

USER'S RISK

The user bears the risk for damage resulting from factors beyond the manufacturer's control.

All recommendations for use of the product are based on the current state of the manufacturer's knowledge. Since the manufacturer cannot control the application, use, storage or processing of the product, the manufacturer cannot accept responsibility therefore.

Since the occurrence of resistance cannot be foreseen, the manufacturer accepts no responsibility for any loss or damage to crops resulting from failure of Amistar® Top 325 SC to control a resistant strain of the target pathogen.

PRODUCT INFORMATION

1. MODE OF ACTION

Amistar® Top 325 SC is a slow moving contact, translaminar and xylem mobile foliar fungicide providing broad spectrum disease control. It acts by killing spores and the growing fungal hyphae and has preventative and curative modes of action.

This due to the two active ingredients found in Amistar® Top 325 SC that belong to the strobilurin and triazole chemical classes.

2. SPECTRUM OF ACTIVITY

Amistar® Top 325 SC is active against pathogens of the classes of Ascomycetes, Basidiomycetes, Deuteromycetes and Oomycetes such as powdery mildews, downy mildews, rusts, blights, blasts, smuts, leaf spots (e.g. *Alternaria* spp., *Cercospora* spp., *Anthraco* spp.) and stem and root diseases.

3. RESISTANCE MANAGEMENT

Amistar® Top 325 SC is recommended in a spray sequence or alternation with fungicides with different modes of actions. Apply blocks of 2-3 sprays of Amistar® Top 325 SC in alternation with blocks of 2-3 sprays of the other products. Do not alternate with strobilurins or triazoles.

For resistance management generally not more than 50% of all fungicide treatments per season should be made with Amistar® Top 325 SC or with other products containing fungicides from the same mode of action group (FRAC groups 11 and 3)

Never use Amistar® Top 325 SC as a corrective or curative treatment or after the unsuccessful control by other fungicides.

4. IPM-FITNESS

No adverse effects of Amistar® Top 325 SC to beneficial insects and honey bees are expected when product is used according to recommendations.

DIRECTIONS FOR USE.

1. WARNINGS

PRE HARVEST INTERVAL

Minimum number of days between last application and harvesting: tomatoes: 3 days; potatoes: 14 days; tobacco 7 days; soyabeans 14 days; Maize: 14 days; peas and French beans: 7 days; peppers: 7 days.

2. COMPATIBILITY

Amistar® Top 325 SC is compatible with most fungicides, insecticides and acaricides with the exception of products containing heavy metals. However since compatibility can be adversely affected by the quality of the water used in the mixture, the manufacturer recommends that a trial mixture be done using the water intended for spraying.

3. CROP TOLERANCE

Amistar® Top 325 SC is highly selective in all field grown crops, where it is recommended. However, it is highly phytotoxic to apples.

4. MIXING

Half fill the sprayer tank with clean water. Add the recommended quantity of Amistar® Top 325 SC to the water while agitating. Top up tank with the required volume of water. Always stir the spray mixture well and apply within a few hours. Do not prepare more spray mixture than is needed for the immediate operation.

5. APPLICATION

In all cases apply as a full cover spray (200-600 Litres/ha in potatoes; 200-1000 Litres/ha in tomatoes; 120-400 Litres/ha in soyabeans) on a preventative basis. Avoid run-off. Make sure the equipment is properly calibrated to give even distribution throughout the target area. Do not spray during the hot hours of the day, if the foliage is wet or if rain is expected within 2 hours.

6. CROP RECOMMENDATIONS

| CROP | DISEASE | DOSAGE | APPLICATION DETAILS |
|---|--|---|---|
| TOBACCO TRB Certificate No.: 13-15- B-12 | Alternaria leaf spot (<i>Alternaria alternata</i>); Frogeye (<i>Cercospora spp.</i>) | 500 ml/ha in 450 Litres/ha of water | Start applications at 8 weeks after transplanting. Ap- ply at two-week intervals. Not more than four sprays should be applied in any one season. |

| CROP | DISEASE | DOSAGE | APPLICATION DETAILS |
|--|--|-----------|---|
| BEANS (French; fine; green; sugar) | Angular leaf spot; rust; anthracnose | 500 ml/ha | Start applications preventatively, before disease symptoms appear. Apply in blocks of two consecutive sprays 7-10 days apart when weather conditions favour the disease. Not more than 6 sprays should be applied per crop cycle. |
| PEAS (sugar-snap; mange-tout; shelling) | Ascochyta; Powdery mildew | 500 ml/ha | Start applications preventatively, before disease symptoms appear. Apply in blocks of two consecutive sprays 7-10 days apart when weather conditions favour the disease. Not more than 6 sprays should be applied per crop cycle. |

| CROP | DISEASE | DOSAGE | APPLICATION DETAILS |
|-------------------------------|--|-----------|---|
| POTATOES and TOMA- TOES | Early blight (<i>Alternaria solani</i>) | 500 ml/ha | Start applications preventatively, before disease symptoms appear. Apply in blocks of two consecutive sprays 7-10 days apart when weather conditions favour the disease. Not more than 6 sprays should be applied per crop cycle. |
| SOYABEANS | Frogeye (<i>Cercospora sojina</i>) | 500 ml/ha | First spray must be at the onset of disease. |

| CROP | DISEASE | DOSAGE | APPLICATION DETAILS |
|--|---|-----------|---|
| MAIZE (baby-corn; sweet-corn; seed maize; commercial grain) | Grey leaf spot (<i>Cer- cospora zeaemaydis</i>) Northern leaf blight (<i>Exserohilum turcicum</i>) Rust (<i>Puccinia sorghii</i>) | 500 ml/ha | Start application before 3% of the total leaf shows disease symptoms OR when symp- toms are present on the basal 3-5 leaves. In all cases, but particu- larly with northern leaf blight, it is vitally important that applications are done preventa- tively for effective disease control. Applications must be made at 21 - 28 day intervals. Use the shorter ap- plication interval if disease pressure is very high. |

TEXT AREA
98 x 130 mm

| CROP | DISEASE | DOSAGE | APPLICATION DETAILS |
|--|--|---|--|
| PEPPERS (sweet peppers; chillies) | Powdery mildew (<i>Leveillula taurica</i>) | 250 ml per 100 litres water as a full cover spray | Apply up to three consecutive sprays 7-14 days apart starting at flower initiation, depend- ing on the disease pressure and spray programme being used. If a 14 day interval is used, ensure that an alternate product is used after 7 days, particularly if weather conditions are conducive to disease develop- ment. |

TEXT AREA
98 x 130 mm

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : **AMISTAR TOP 325SC**

Design code : A13703G

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

Use of the Sub-stance/Mixture : Fungicide

1.3 Details of the supplier of the safety data sheet

Company : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland

Telephone : +41 61 323 11 11

Telefax : +41 61 323 12 12

E-mail address : sds.ch@syngenta.com

1.4 Emergency telephone number

Emergency telephone number : +44 1484 538444

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H332: Harmful if inhaled.

Skin sensitisation, Sub-category 1B H317: May cause an allergic skin reaction.

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 : **Warning**

Hazard statements : **H317** **May cause an allergic skin reaction.**

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| | | |
|--------------------------|---|--|
| Precautionary statements | H332 | Harmful if inhaled. |
| | H410 | Very toxic to aquatic life with long lasting effects. |
| | Prevention: P261 | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. |
| | P280 | Wear protective gloves/ protective clothing. |
| | Response: P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/ attention. | |
| P391 | Collect spillage. | |
| Disposal: P501 | Dispose of contents/ container to an approved waste disposal plant. | |

Hazardous components which must be listed on the label:

azoxystrobin

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

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. Registration number | Classification (REGULATION (EC) No 1272/2008) | Concentration (%) |
|------------------------------|--|--|-------------------|
| C16-18 alcohols, ethoxylated | 68439-49-6 500-212-8 500-212-8 | Acute Tox. 4; H302 Eye Dam. 1; H318 | >= 20 - < 30 |
| azoxystrobin | 131860-33-8 | Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | >= 10 - < 20 |
| difenoconazole | 119446-68-3 | Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | >= 10 - < 20 |

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| naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt | Not Assigned | Skin Irrit. 2; H315 Eye Irrit. 2; H319 | >= 1 - < 3 |
| 1,2-benzisothiazol-3(2H)-one | 2634-33-5 220-120-9 | Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 | < 0.05 |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- 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 : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

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

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SECTION 5: Firefighting 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).

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6.4 Reference to other sections

Refer to disposal considerations listed in 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.

Other data : 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 |
|----------------|-------------|-------------------------------|---------------------|----------|
| azoxystrobin | 131860-33-8 | TWA | 4 mg/m ³ | Syngenta |
| difenoconazole | 119446-68-3 | TWA | 8 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.

If airborne mists or vapors are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

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- Eye protection : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Hand protection
- Material : Nitrile rubber
 - Break through time : > 480 min
 - Glove thickness : 0.5 mm
- Remarks : Chemical resistant gloves should be used. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. 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 : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit
- Respiratory protection : A gas and vapor filter respirator may be necessary until effective technical measures are installed.
Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
- 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.
Personal protective equipment should be certified to appropriate standards.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid
- Colour : light yellow to yellow
- Odour : weak
- pH : 5 - 9, Concentration: 1 % w/v

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7.5 - 8.5, Concentration: 100 % w/v (20 °C)

Flash point : > 100 °C
(1007 hPa)

Density : 1.11 g/cm³ (20 °C)

Auto-ignition temperature : 505 °C

Viscosity
Viscosity, dynamic : 169 - 646 mPa.s (20 °C)

98.0 - 472 mPa.s (40 °C)

Explosive properties : Classification Code: Not explosive

Oxidizing properties : not oxidizing

9.2 Other information

Surface tension : 27.9 mN/m, 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3 "Possibility of hazardous reactions".

10.2 Chemical stability

The product is stable when used in normal conditions

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : No substances are known which lead to the formation of hazardous substances or thermal reactions.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

- Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
- Acute inhalation toxicity : LC50 (Rat, male and female): 2.06 - < 5.17 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

Components:

azoxystrobin:

- Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
- 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

difenoconazole:

- Acute oral toxicity : LD50 (Rat, male and female): 1,453 mg/kg
- Acute inhalation toxicity : LC50 (Rat, male and female): > 3,300 mg/m³
Exposure time: 4 h
- Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,010 mg/kg

naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt:

- Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

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

- Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Assessment: The component/mixture is moderately toxic after

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single ingestion.

Skin corrosion/irritation

Product:

Species: Rabbit
Result: No skin irritation

Components:

azoxystrobin:

Species: Rabbit
Result: No skin irritation

difenoconazole:

Species: Rabbit
Result: Slightly irritating

naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt:

Species: Rabbit
Result: irritating

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

Result: irritating

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: No eye irritation

Components:

azoxystrobin:

Species: Rabbit
Result: No eye irritation

difenoconazole:

Species: Rabbit
Result: Moderately irritating

naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt:

Species: Rabbit
Result: irritating

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

Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Product:

Test Type: Buehler Test
Species: Guinea pig

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Result: The product is a skin sensitiser, sub-category 1B.

Components:

azoxystrobin:

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

difenoconazole:

Species: Guinea pig

Result: Not a skin sensitizer in animal tests.

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

Method: Based on Human Evidence

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

azoxystrobin:

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

difenoconazole:

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

Carcinogenicity

Components:

azoxystrobin:

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

difenoconazole:

Carcinogenicity - Assessment : This substance has been reported to cause tumours in certain animal species., There is no evidence that these findings are relevant to humans.

Reproductive toxicity

Components:

azoxystrobin:

Reproductive toxicity - Assessment : No toxicity to reproduction

difenoconazole:

Reproductive toxicity - Assessment : No toxicity to reproduction

Repeated dose toxicity

Components:

azoxystrobin:

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

difenoconazole:

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)): 1.7 mg/l
Exposure time: 96 h

LC50 (Cyprinus carpio (Carp)): 4.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.1 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 3.9 mg/l
Exposure time: 96 h

NOErC (Pseudokirchneriella subcapitata (green algae)): 0.23 mg/l
Exposure time: 96 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 : ErC50 (Pseudokirchneriella subcapitata (green algae)): 2 mg/l
Exposure time: 96 h

NOErC (Pseudokirchneriella subcapitata (green algae)): 0.038 mg/l
Exposure time: 96 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): 0.301 mg/l
Exposure time: 96 h

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- 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
- difenoconazole:**
- Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 1.1 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 0.77 mg/l
Exposure time: 48 h
- EC50 (*Americamysis bahia* (Mysid shrimp)): 0.15 mg/l
Exposure time: 96 h
- Toxicity to algae : EC50 (*Navicula pelliculosa* (Freshwater diatom)): 0.091 mg/l
Exposure time: 72 h
- NOEC (*Navicula pelliculosa* (Freshwater diatom)): 0.053 mg/l
Exposure time: 72 h
- NOEC (*Desmodesmus subspicatus* (green algae)): 0.0086 mg/l
Exposure time: 72 h
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to bacteria : EC50 (activated sewage sludge): > 100 mg/l
Exposure time: 3 h
- Toxicity to fish (Chronic toxicity) : NOEC: 0.0076 mg/l
Exposure time: 34 d
Species: *Pimephales promelas* (fathead minnow)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0056 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

NOEC: 0.0046 mg/l
Exposure time: 28 d
Species: Americamysis

M-Factor (Chronic aquatic toxicity) : 10

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

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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.

difenoconazole:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 1 d
Remarks: Not persistent in water.

12.3 Bioaccumulative potential

Components:

azoxystrobin:

Bioaccumulation : Remarks: Does not bioaccumulate.

difenoconazole:

Bioaccumulation : Remarks: Difenoconazole has high potential to bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 4.4 (25 °C)

12.4 Mobility in soil

Components:

azoxystrobin:

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

Stability in soil : Remarks: Not persistent in soil.

difenoconazole:

Distribution among environ- : Remarks: Low mobility in soil.

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mental compartments

Stability in soil : Remarks: Not persistent in soil.

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)..

difenoconazole:

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 : Remarks: Acute aquatic toxicity
Chronic aquatic toxicity
Classification of the product is based on the summation of the concentrations of classified components.

Components:

azoxystrobin:

Additional ecological information : Remarks: No data available

difenoconazole:

Additional ecological information : Remarks: No data available

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

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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

Land transport (ADR/RID)

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN AND DIFENOCONAZOLE)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Environmentally hazardous
Tunnel restriction code: E

Sea transport(IMDG)

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN AND DIFENOCONAZOLE)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Marine pollutant

Air transport (IATA-DGR)

14.1 UN number: UN 3082
14.2 UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (AZOXYSTROBIN AND DIFENOCONAZOLE)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

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.

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.
H400 : Very toxic to aquatic life.
H410 : Very toxic 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 Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

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

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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

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.

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