

MIRAVIS DUO

Version Revision Date: SDS Number: This version replaces all previous versions.

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

1.1 Product identifier

Trade name : MIRAVIS DUO

Design code : A20259G

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

Use of the Sub- : Fungicide

stance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : Syngenta SA (Pty) Ltd

P.O. Box 1044, No. 4 Krokodildrift Avenue

Brits 0250 South Africa

Telephone : +27 (0)12 2506 300

Telefax : -

E-mail address of person

responsible for the SDS

: sds.ame@syngenta.com

1.4 Emergency telephone number

Emergency telephone num- : +27 (0) 82 446 8946 (Griffon)

ber

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. Short-term (acute) aquatic hazard, Cate-H400: Very toxic to aquatic life.

orv 1

Long-term (chronic) aquatic hazard, Cat- H410: Very toxic to aquatic life with long lasting

egory 1 effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements : H302 Harmful if swallowed.



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H351 Suspected of causing cancer.H361f Suspected of damaging fertility.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.

Prevention:

P201 Obtain special instructions before use. P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection/ hearing protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label:

difenoconazole pydiflumetofen

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)
difenoconazole	119446-68-3	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 ——— M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 10 - < 20



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pydiflumetofen	1228284-64-7	Carc. 2; H351 Repr. 2; H361f	>= 3 - < 10
	616-234-00-7	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6 01-2120761540-60- xxxx	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 0,025 - < 0,05
		M-Factor (Acute aquatic toxicity): 1	
bronopol (INN)	52-51-7 200-143-0 603-085-00-8 01-2119980938-15- xxxx	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 ——— M-Factor (Acute	>= 0,025 - < 0,1
		aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	

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 respira-



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tion.

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: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or car-

bon 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 prod-

ucts of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.

5.3 Advice for firefighters

Special protective equipment : Wear full protective clothing and self-contained breathing ap-



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for firefighters paratus.

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 ab-

sorbent 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.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
difenoconazole	119446-68- 3	TWA	5 mg/m3	Syngenta
pydiflumetofen	1228284- 64-7	TWA	5 mg/m3	Syngenta

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	10 mg/m3
	Consumers	Inhalation	Long-term systemic effects	30 mg/m3
	Workers	Inhalation	Long-term local effects	10 mg/m3
1,2-benzisothiazol- 3(2H)-one	Workers	Inhalation	Long-term systemic effects	6,81 mg/m3
	Workers	Dermal	Long-term systemic effects	0,966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1,2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,345 mg/kg
bronopol (INN)	Workers	Inhalation	Long-term systemic effects	3,5 mg/m3
	Workers	Inhalation	Acute systemic effects	10,5 mg/m3
	Workers	Inhalation	Long-term local ef- fects	2,5 mg/m3
	Workers	Inhalation	Acute local effects	2,5 mg/m3
	Workers D	Dermal	Long-term systemic effects	2 mg/kg
	Workers	Dermal	Acute systemic effects	6 mg/kg
	Workers	Dermal	Long-term local ef- fects	0,008 mg/cm2
	Workers	Dermal	Acute local effects	0,008 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	0,6 mg/m3
	Consumers	Inhalation	Acute systemic effects	1,8 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	0,6 mg/m3



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Cor	sumers	halation	Acute local effects	0,6 mg/m3
Cor	sumers De	ermal	Long-term systemic effects	0,7 mg/kg
Cor	sumers De	ermal	Acute systemic effects	2,1 mg/kg
Cor	sumers De	ermal	Long-term local effects	0,004 mg/cm2
Cor	sumers De	ermal	Acute local effects	0,004 mg/cm2
Cor	isumers Oi	ral	Long-term systemic effects	0,18 mg/kg
Cor	sumers Oi	ral	Acute systemic effects	0,5 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
propane-1,2-diol	Fresh water	260 mg/l
propario 1,2 dioi	Marine water	26 mg/l
	Intermittent use/release	183 mg/l
	Sewage treatment plant	20000 mg/l
	Marine sediment	57,2 mg/kg
	Fresh water sediment	572 mg/kg
	Soil	50 mg/kg
1,2-benzisothiazol-3(2H)-one	Fresh water	0,00403 mg/l
	Marine water	0,000403 mg/l
	Sewage treatment plant	1,03 mg/l
	Fresh water sediment	0,0499 mg/kg
	Marine sediment	0,00499 mg/kg
	Freshwater - intermittent	0,0011 mg/l
	Marine water - intermittent	0,000110 mg/l
	Soil	3 mg/kg
bronopol (INN)	Fresh water	0,01 mg/l
	Marine water	0,001 mg/l
	Freshwater - intermittent	0,003 mg/l
	Sewage treatment plant	0,43 mg/l
_	Fresh water sediment	0,041 mg/kg
	Marine sediment	0,003 mg/kg
	Soil	0,5 mg/kg

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/face protection : No special protective equipment required.

Hand protection



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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 concen-

tration and amount of dangerous substances, and to the spe-

cific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate: Impervious clothing

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

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 appro-

priate professional advice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid Colour : white

Odour : No data available Odour Threshold : No data available

pH : 6-8

Concentration: 1 % w/v

7,8

Concentration: 100 % w/v

Melting point/range : No data available

Boiling point/boiling range : No data available



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Flash point Method: Seta closed cup

does not flash

: No data available Evaporation rate

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 1,09 g/cm3 (20 °C)

Solubility(ies)

Water solubility No data available Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

> 650 °C Auto-ignition temperature

Decomposition temperature No data available

Viscosity

No data available Viscosity, kinematic

Not explosive Explosive properties

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

9.2 Other information

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.



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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): 1.098 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 4,96 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg

Components:

difenoconazole:

Acute oral toxicity : LD50 (Rat, male and female): 1.453 mg/kg

Assessment: The component/mixture is moderately toxic after

single ingestion.

Acute inhalation toxicity : LC50 (Rat, male and female): > 3.300 mg/m3

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.010 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

pydiflumetofen:



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Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 5,11 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The component/mixture is minimally toxic after

short term inhalation.

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg

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

bronopol (INN):

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

single ingestion.

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after

single contact with skin.

Skin corrosion/irritation

Product:

Species : Rabbit

Result : No skin irritation

Components:

difenoconazole:

Species : Rabbit

Result : No skin irritation

pydiflumetofen:

Species : Rabbit

Result : No skin irritation

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

Species : Rabbit

Result : Mild skin irritation

bronopol (INN):

Result : Irritating to skin.



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Serious eye damage/eye irritation

Product:

Species : Rabbit

Result : No eye irritation

Components:

difenoconazole:

Species : Rabbit

Result : Irritation to eyes, reversing within 7 days

pydiflumetofen:

Species : Rabbit

Result : No eye irritation

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

Species : Rabbit

Result : Risk of serious damage to eyes.

bronopol (INN):

Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Result : Did not cause sensitisation on laboratory animals.

Components:

difenoconazole:

Species : Guinea pig

Result : Did not cause sensitisation on laboratory animals.

pydiflumetofen:

Test Type : mouse lymphoma cells

Species : Mouse

Result : Did not cause sensitisation on laboratory animals.

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

Result : Probability or evidence of skin sensitisation in humans



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Germ cell mutagenicity

Components:

difenoconazole:

Germ cell mutagenicity- As-

sessment

Animal testing did not show any mutagenic effects.

pydiflumetofen:

Germ cell mutagenicity- As-

sessment

Animal testing did not show any mutagenic effects.

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

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

Carcinogenicity

Components:

difenoconazole:

Carcinogenicity - Assessment

Weight of evidence does not support classification as a car-

cinogen

pydiflumetofen:

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

Reproductive toxicity

Components:

difenoconazole:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

pydiflumetofen:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

STOT - single exposure

Components:

pydiflumetofen:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

bronopol (INN):

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with respiratory tract

irritation.



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STOT - repeated exposure

Components:

difenoconazole:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

pydiflumetofen:

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 (Oncorhynchus mykiss (rainbow trout)): 3,5 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1,6 mg/l

Exposure time: 48 h

Components:

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): 0,15 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

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

ErC50 (Desmodesmus subspicatus (green algae)): 0,0876

ng/l

Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 0,015 mg/l

End point: Growth rate Exposure time: 72 h



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M-Factor (Acute aquatic tox-

icity)

: 10

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0,0076 mg/l Exposure time: 34 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,0056 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

NOEC: 0,0023 mg/l Exposure time: 28 d Species: Americamysis

M-Factor (Chronic aquatic

toxicity)

10

pydiflumetofen:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,18 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0,42 mg/l

Exposure time: 48 h

LC50 (Hyalella azteca (Amphipod)): 0,12 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): >

5,9 mg/l

Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 2,3

mg/l

End point: Growth rate Exposure time: 72 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): 1,6 mg/l

Exposure time: 72 h

EC10 (Navicula pelliculosa (Freshwater diatom)): 0,97 mg/l

End point: Growth rate Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

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Toxicity to fish (Chronic tox-

icity)

NOEC: 0,025 mg/l Exposure time: 32 d

Species: Pimephales promelas (fathead minnow)



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Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,042 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

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

1

Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)):

0,04 mg/l

End point: Growth rate Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

Toxicity to fish (Chronic tox-

icity)

NOEC: 0,3 mg/l Exposure time: 28 d

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 1,7 mg/l Exposure time: 21 d

Species: Daphnia (water flea)

bronopol (INN):

Toxicity to algae/aquatic

plants

NOEC (algae): 0,0025 mg/l

Exposure time: 72 h

EC50 (algae): 0,068 mg/l Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

10

M-Factor (Chronic aquatic

toxicity)

12.2 Persistence and degradability

Components:

difenoconazole:



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Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 1 d

Remarks: Product is not persistent.

pydiflumetofen:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 236 d

Remarks: Persistent in water.

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

Biodegradability : Result: rapidly degradable

bronopol (INN):

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

difenoconazole:

Bioaccumulation : Remarks: High bioaccumulation potential.

Partition coefficient: n-

octanol/water

log Pow: 4,4 (25 °C)

pydiflumetofen:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 3,8 (25 °C)

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

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Components:

difenoconazole:

Distribution among environ-

mental compartments

: Remarks: Low mobility in soil.

Stability in soil : Dissipation time: 149 - 187 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

pydiflumetofen:

Distribution among environ-

mental compartments

Remarks: Low mobility in soil.

Stability in soil : Dissipation time: 674 d



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Percentage dissipation: 50 % (DT50)

Remarks: 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:

difenoconazole:

Assessment : This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT).. This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

pydiflumetofen:

Assessment : This substance is not considered to be persistent, bioaccumu-

lating 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, bioaccumu-

lating and toxic (PBT).. This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Endocrine disrupting poten-

tial

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 chemi-

cal or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incinera-

tion.

If recycling is not practicable, dispose of in compliance with

local regulations.

Contaminated packaging : Empty remaining contents.



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Triple rinse containers.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

UNRTDG : UN 3082
 IMDG : UN 3082
 IATA : UN 3082

14.2 UN proper shipping name

UNRTDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(DIFENOCONAZOLE, PYDIFLUMETOFEN)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(DIFENOCONAZOLE AND PYDIFLUMETOFEN)

Environmentally hazardous substance, liquid, n.o.s.

(DIFENOCONAZOLE AND PYDIFLUMETOFEN)

14.3 Transport hazard class(es)

 UNRTDG
 : 9

 IMDG
 : 9

 IATA
 : 9

14.4 Packing group

UNRTDG

Packing group : III Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen: :

ger aircraft)

Packing instruction (LQ) : Y964

964



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Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 Special precautions for user

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 regulations/legislation specific for the substance or mixture

Other regulations:

None known.

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.

H312 : Harmful in contact with skin.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H318: Causes serious eye damage.H319: Causes serious eye irritation.H335: May cause respiratory irritation.H351: Suspected of causing cancer.H361f: Suspected of damaging fertility.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity



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Aquatic Acute : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Carc. : Carcinogenicity
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation

Repr. : Reproductive toxicity
Skin Irrit : Skin irritation

Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals 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:

Classification procedure:

Acute Tox. 4 H302 Based on product data or assessment

Aquatic Acute 1 H400 Calculation method
Aquatic Chronic 1 H410 Calculation method



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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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