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### **EVERGOL ENERGY FS176.6**

Version 3 / ZA

102000022382

Revision Date: 09.03.2023

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

1.1 Product identifier

Trade name EVERGOL ENERGY FS176.6

Product code (UVP) 84921041

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

**Use** Seed treatment, Fungicide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer (Pty) Ltd.

27 Wrench Road, P.O. Box 143

1600 Isando South Africa

**Telephone** +27 (011) 921 5911 **Telefax** +27 (011) 921 5766

Responsible Department QHSE - Nigel, South Africa

+27 (011) 365 8675 (during business hours only)

1.4 Emergency telephone no.

Emergency telephone no. +27 (0861) 555 777 (Western Cape Poisons Helpline)

**Global Incident Response** 

Hotline (24h)

+1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

#### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1 Classification of the substance or mixture

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

Carcinogenicity: Category 2

H351 Suspected of causing cancer.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

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

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

Prothioconazole



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- Metalaxyl
- Penflufen





### Signal word: Warning

#### **Hazard statements**

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

EUH208 Contains Metalaxyl, 1,2-benzisothiazolin-3-one, reaction mass of 5-chloro-2-

methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1). May produce an

allergic reaction.

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

#### **Precautionary statements**

P201 Obtain special instructions before use.

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

P391 Collect spillage.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.

P410 Protect from sunlight.

P501 Dispose of contents/container in accordance with local regulation.

#### 2.3 Other hazards

No additional hazards known beside those mentioned.

Prothioconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Penflufen: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Metalaxyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Ecological information: 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.

Toxicological information: 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 3: COMPOSITION/INFORMATION ON INGREDIENTS 3.2 Mixtures**

#### **Chemical nature**

Flowable concentrate for seed treatment (FS) Metalaxyl/Penflufen/Prothioconazole 61,4:38,4:76,8 g/l

### **Hazardous components**



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

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification REGULATION (EC) No 1272/2008	Conc. [%]
Prothioconazole	178928-70-6	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	7,18
Penflufen	494793-67-8 619-823-7		3,59
Metalaxyl	57837-19-1		5,74
1,2-Benzisothiazol-3(2H)- one	2634-33-5 01-2120761540-60-xxxx	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	>= 0,005 - < 0,05
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-on e and 2-methyl-2H-isothiazol-3- one (3:1)	55965-84-9	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	>= 0.00015 - < 0.0015
Polyethylene-polypropyle ne copolymer	9003-11-6	Not classified	>= 1,0
1,2-Propanediol	57-55-6 01-2119456809-23-XXXX	Not classified	>= 1,0

#### **Further information**

1,2-Benzisothiazol-	2634-33-5	M-Factor: 1 (acute)
3(2H)-one		

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

#### **SECTION 4: FIRST AID MEASURES**

#### 4.1 Description of first aid measures

**General advice** Move out of dangerous area. Place and transport victim in stable

position (lying sideways). Remove contaminated clothing immediately

and dispose of safely.

**Inhalation** Move to fresh air. Keep patient warm and at rest. Call a physician or

poison control center immediately.

**Skin contact** Wash off immediately with polyethylene glycol 400, then with plenty of

water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at

least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation

develops and persists.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center

immediately. Rinse mouth.



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4.2 Most important symptoms and effects, both acute and delayed

No symptoms known or expected. **Symptoms** 

4.3 Indication of any immediate medical attention and special treatment needed

**Treatment** There is no specific antidote. In case of ingestion gastric lavage should

> be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium

sulphate is always advisable. Treat symptomatically.

**SECTION 5: FIREFIGHTING MEASURES** 

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising

from the substance or

mixture

Dangerous gases are evolved in the event of a fire.

5.3 Advice for firefighters

Special protective

equipment for firefighters

In the event of fire and/or explosion do not breathe fumes. In the event of

fire, wear self-contained breathing apparatus.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from

fire fighting to enter drains or water courses.

**SECTION 6: ACCIDENTAL RELEASE MEASURES** 

6.1 Personal precautions, protective equipment and emergency procedures

**Precautions** Avoid contact with spilled product or contaminated surfaces. Use

personal protective equipment.

6.2 Environmental

precautions

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

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder,

> universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. If the product is accidentally

spilled, do not allow to enter soil, waterways or waste water canal.

6.4 Reference to other

sections

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

**SECTION 7: HANDLING AND STORAGE** 

7.1 Precautions for safe handling

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

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes



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separately. Wash hands before breaks and immediately after handling the product. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

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

Requirements for storage areas and containers

Keep containers tightly closed in a cool, well-ventilated place. Store in original container and out of the reach of children, preferably in a locked storage area. Store in a place accessible by authorized persons only.

Keep away from direct sunlight. Protect from freezing.

Suitable materials HDPE - steel case

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

#### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Prothioconazole	178928-70-6	1,4 mg/m3 (SK-ABS)		OES BCS*
Prothioconazole	178928-70-6	1,4 mg/m3 (SK-ABS)		OES BCS*
Penflufen	494793-67-8	1,1 mg/m3 (TWA)		OES BCS*

<sup>\*</sup>OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

#### 8.2 Exposure controls

**Respiratory protection** Respiratory protection is not required under anticipated circumstances

of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's

instructions regarding wearing and maintenance.

**Hand protection** 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.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating,

drinking, smoking or using the toilet.

Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0,4 mm

Directive Protective gloves complying with EN

374.

**Eye protection** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection** Wear standard coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective



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type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and

should be professionally laundered frequently.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

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

9.1 Information on basic physical and chemical properties

Form suspension

Colour beige
Odour musty

Odour Threshold No data available

**pH** 6,0 - 8,0 (100 %) (23 °C)

Melting point/rangeNo data availableBoiling PointNo data available

**Flash point** No flash point - Determination conducted up to the boiling point.

Flammability No data available

Auto-ignition temperature 445 °C

Thermal decomposition No data available

Minimum ignition energy No data available
Self-accelarating No data available

decomposition temperature

(SADT)

No data available

Upper explosion limitNo data availableLower explosion limitNo data availableVapour pressureNo data availableEvaporation rateNo data availableRelative vapour densityNo data availableRelative densityNo data available

**Density** ca. 1,07 g/cm³ (20 °C)

Water solubility dispersible

Partition coefficient: n-octanol/water

Prothioconazole: log Pow: 3,82 (20 °C) (pH 7)

Penflufen: log Pow: 3,3 (25 °C)

Viscosity, dynamicNo data availableViscosity, kinematicNo data availableOxidizing propertiesNo data available



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**Explosivity** Not explosive

92/69/EEC, A.14 / OECD 113

9.2 Other information Further safety related physical-chemical data are not known.

#### **SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity Stable under normal conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of No hazardous reactions when stored and handled according to

hazardous reactions prescribed instructions.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.5 Incompatible materials Store only in the original container.

10.6 Hazardous

decomposition products

No decomposition products expected under normal conditions of use.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on hazard classes as defined in regulation (EC) No 1272/2008

Acute oral toxicity LD50 (Rat) > 2.000 mg/kgAcute inhalation toxicity LC50 (Rat) > 2,205 mg/l

Exposure time: 4 h

Determined in the form of liquid aerosol.

Highest attainable concentration.

LD50 (Rat) > 2.000 mg/kg Acute dermal toxicity Skin corrosion/irritation No skin irritation (Rabbit) Serious eye damage/eye

irritation

No eye irritation (Rabbit)

Respiratory or skin

sensitisation

Skin: Non-sensitizing. (Mouse)

#### Assessment STOT Specific target organ toxicity - single exposure

Prothioconazole: Based on available data, the classification criteria are not met. Penflufen: Based on available data, the classification criteria are not met. Metalaxyl: Based on available data, the classification criteria are not met.

#### Assessment STOT Specific target organ toxicity - repeated exposure

Prothioconazole did not cause specific target organ toxicity in experimental animal studies. Penflufen did not cause specific target organ toxicity in experimental animal studies. Metalaxyl did not cause specific target organ toxicity in experimental animal studies.

#### Assessment mutagenicity



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Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Penflufen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. Metalaxyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.

Penflufen caused at high dose levels an increased incidence of tumours in rats in the following organ(s): ovaries, Brain, hematopoietic system. The mechanism that triggers these tumours is not relevant to humans.

Metalaxyl was not carcinogenic in lifetime feeding studies in rats and mice.

#### Assessment toxicity to reproduction

Prothioconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Prothioconazole is related to parental toxicity.

Penflufen did not cause reproductive toxicity in a two-generation study in rats. Metalaxyl did not cause reproductive toxicity in a multi-generation study in rats.

#### Assessment developmental toxicity

Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.

Penflufen did not cause developmental toxicity in rats and rabbits.

Metalaxyl did not cause developmental toxicity in rats and rabbits.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

#### 11.2 Information on other hazards

#### **Endocrine disrupting properties**

Assessment

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 12: ECOLOGICAL INFORMATION**

#### 12.1 Toxicity

**Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) 1,83 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient prothioconazole.

LC50 (Cyprinus carpio (Carp)) 0,103 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient penflufen.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 1,3 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient prothioconazole.

EC50 (Daphnia magna (Water flea)) > 4,66 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient penflufen.



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No acute toxicity was observed at its limit of water solubility.

**Toxicity to aquatic plants** ErC50 (Skeletonema costatum) 0,03278 mg/l

Exposure time: 72 h

The value mentioned relates to the active ingredient prothioconazole.

EC10 (Skeletonema costatum) 0,01427 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient prothioconazole. EC50 (Raphidocelis subcapitata (freshwater green alga)) > 5,1 mg/l

Growth rate; Exposure time: 96 h

The value mentioned relates to the active ingredient penflufen. No acute toxicity was observed at its limit of water solubility.

12.2 Persistence and degradability

**Biodegradability** Prothioconazole:

Not rapidly biodegradable

Penflufen:

Not rapidly biodegradable

Metalaxyl:

Not rapidly biodegradable

**Koc** Prothioconazole: Koc: 1765

Penflufen: Koc: 280 Metalaxyl: Koc: 163

12.3 Bioaccumulative potential

**Bioaccumulation** Prothioconazole: Bioconcentration factor (BCF) 19

Does not bioaccumulate.

Penflufen: Bioconcentration factor (BCF) 142

Does not bioaccumulate.

Metalaxyl: Bioconcentration factor (BCF) < 7

Does not bioaccumulate.

12.4 Mobility in soil

**Mobility in soil** Prothioconazole: Slightly mobile in soils

Penflufen: Moderately mobile in soils Metalaxyl: Moderately mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Prothioconazole: This substance is not considered to be persistent,

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

very persistent and very bioaccumulative (vPvB).

Penflufen: This substance is not considered to be persistent,

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

very persistent and very bioaccumulative (vPvB).

Metalaxyl: This substance is not considered to be persistent,

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

very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

Assessment 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.

12.7 Other adverse effects



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Additional ecological

information

No other effects to be mentioned.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1 Waste treatment methods

**Product** In accordance with current regulations and, if necessary, after

consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

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

waste.

#### **SECTION 14: TRANSPORT INFORMATION**

**SANS 10231** 

14.1 UN number **3082** 

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PROTHIOCONAZOLE, PENFLUFEN SOLUTION)

14.3 Transport hazard class(es)14.4 Packaging Group14.5 Environm. Hazardous MarkYES

**IMDG** 

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PROTHIOCONAZOLE, PENFLUFEN SOLUTION)

14.3 Transport hazard class(es) 9
14.4 Packaging Group III
14.5 Marine pollutant YES

IATA

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PROTHIOCONAZOLE, PENFLUFEN SOLUTION)

14.3 Transport hazard class(es)
14.4 Packaging Group
14.5 Environm. Hazardous Mark
YES

#### 14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

#### 14.7 Transport in bulk according to IMO instruments

No transport in bulk according to the IBC Code.

#### **SECTION 15: REGULATORY INFORMATION**

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





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WHO-classification: III (Slightly hazardous)

#### **SECTION 16: OTHER INFORMATION**

#### Text of the hazard statements mentioned in Section 3

H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H330 Fatal if inhaled.

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.

#### Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by

**Inland Waterways** 

ADR European Agreement concerning the International Carriage of Dangerous Goods by

Road

ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

Conc. Concentration

EC-No. European community number ECx Effective concentration to x %

EINECS European inventory of existing commercial substances

ELINCS European list of notified chemical substances

EN European Standard EU European Union

IATA International Air Transport Association

IBC International Code for the Construction and Equipment of Ships Carrying Dangerous

Chemicals in Bulk (IBC Code)
Inhibition concentration to x %

IMDG International Maritime Dangerous Goods

LCx Lethal concentration to x %

LDx Lethal dose to x %

**IC**x

LOEC/LOEL Lowest observed effect concentration/level

MARPOL: International Convention for the prevention of marine pollution from ships

N.O.S. Not otherwise specified

NOEC/NOEL No observed effect concentration/level

OECD Organization for Economic Co-operation and Development

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

TWA Time weighted average

UN United Nations

WHO World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2020/878 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other





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than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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