



EVERGOL® ENERGY SB

Version 2.0 / USA
102000022382

1/11
Revision Date: 10/20/2014
Print Date: 02/04/2015

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

Product identifier

Trade name EVERGOL® ENERGY SB

Product code (UVP) 79483929

SDS Number 102000022382

EPA Registration No. 264-1122

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

Use Seed treatment, Fungicide

Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-866-99BAYER (1-866-992-2937)

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

No particular hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|--------------------------------------|----------------|----------------------------------|
| Prothioconazole | 178928-70-6 | 7.18 |
| Penflufen | 494793-67-8 | 3.59 |
| Metalaxyl | 57837-19-1 | 5.74 |
| Polyethylene-polypropylene copolymer | 9003-11-6 | 2.00 |
| 1,2-Propanediol | 57-55-6 | 19.90 |



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SECTION 4: FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. |
| Inhalation | Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately. |
| Eye contact | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended. |

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water spray, Foam, Carbon dioxide (CO₂), Dry chemical

Unsuitable None known.

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.



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| | |
|---------------------------------|---|
| Flash point | No flash point - Determination conducted up to the boiling point. |
| Autoignition temperature | 445 °C / 833 °F |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Explosivity | Not explosive 92/69/EEC, A.14 / OECD 113 |

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

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

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

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities



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Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|---|-------------|-----------------------|---------|----------|
| Prothioconazole | 178928-70-6 | 50ug/m3 (ST ESL) | 07 2011 | TX ESL |
| Prothioconazole | 178928-70-6 | 5ug/m3 (AN ESL) | 07 2011 | TX ESL |
| Prothioconazole | 178928-70-6 | 1.4 mg/m3 (SK-ABS) | | OES BCS* |
| Metalaxyl | 57837-19-1 | 50ug/m3 (ST ESL) | 07 2011 | TX ESL |
| Metalaxyl | 57837-19-1 | 5ug/m3 (AN ESL) | 07 2011 | TX ESL |
| Polyethylene-polypropylene copolymer (Vapor.) | 9003-11-6 | 1000ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Polyethylene-polypropylene copolymer (Vapor.) | 9003-11-6 | 100ug/m3 (AN ESL) | 02 2013 | TX ESL |
| 1,2-Propanediol (Vapor.) | 57-55-6 | 1000ug/m3 (ST ESL) | 02 2013 | TX ESL |
| 1,2-Propanediol (Vapor.) | 57-55-6 | 50ppb (AN ESL) | 02 2013 | TX ESL |
| 1,2-Propanediol (Vapor.) | 57-55-6 | 500ppb (ST ESL) | 02 2013 | TX ESL |
| 1,2-Propanediol (Vapor.) | 57-55-6 | 100ug/m3 (AN ESL) | 02 2013 | TX ESL |
| 1,2-Propanediol (Aerosol.) | 57-55-6 | 10 mg/m3 (TWA) | 2010 | WEEL |

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.



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| Hand protection | Chemical resistant nitrile rubber gloves |
| Eye protection | Safety glasses with side-shields |
| Skin and body protection | Wear long-sleeved shirt and long pants and shoes plus socks. |
| General protective measures | Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance | beige |
| Physical State | Liquid |
| Odor | musty |
| Odour Threshold | no data available |
| pH | 6.0 - 8.0 at 100 % (23 °C) |
| Vapor Pressure | no data available |
| Vapor Density (Air = 1) | no data available |
| Density | 1.07 g/cm ³ at 20 °C |
| Evaporation rate | no data available |
| Boiling Point | no data available |
| Melting / Freezing Point | no data available |
| Water solubility | dispersible |
| Minimum Ignition Energy | not applicable |
| Decomposition temperature | not applicable |
| Partition coefficient: n-octanol/water | not applicable |
| Viscosity | 40 - 100 mPa.s at 20 °C Velocity gradient 100 /s |
| Flash point | No flash point - Determination conducted up to the boiling point. |
| Autoignition temperature | 445 °C / 833 °F |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Explosivity | Not explosive 92/69/EEC, A.14 / OECD 113 |



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SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | not applicable |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | No hazardous reactions when stored and handled according to prescribed instructions. |
| Conditions to avoid | Extremes of temperature and direct sunlight. |
| Incompatible materials | no data available |
| Hazardous decomposition products | No decomposition products expected under normal conditions of use. |

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Skin Absorption, Ingestion, Eye contact, Inhalation

Immediate Effects

Skin Harmful if absorbed through skin.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (rat) > 2,000 mg/kg

Acute inhalation toxicity LC50 (rat) > 2.205 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.

Acute dermal toxicity LD50 (rat) > 2,000 mg/kg

Skin irritation No skin irritation (rabbit)

Eye irritation No eye irritation (rabbit)

Sensitisation Non-sensitizing. (mouse)

Assessment repeated dose toxicity

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

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.



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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): hematopoietic system, brain, ovaries. The mechanism that triggers these tumours is not relevant to humans.
Metalaxyl was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

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.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

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 (Water flea (Daphnia magna)) 1.3 mg/l
Exposure time: 48 h



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The value mentioned relates to the active ingredient prothioconazole.

EC50 (Water flea (Daphnia magna)) > 4.66 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient penflufen.

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

Toxicity to aquatic plants

IC50 (Pseudokirchneriella subcapitata) 2.18 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient prothioconazole.

EC50 (Pseudokirchneriella subcapitata) > 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.

Biodegradability

Prothioconazole: ; not rapidly biodegradable

Penflufen: ; not rapidly biodegradable

Metalaxyl: ; not rapidly biodegradable

Koc

Prothioconazole: Koc: 1765; log Koc: < 3

Penflufen: Koc: 280

Metalaxyl: Koc: 163

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.

Mobility in soil

Prothioconazole: Slightly mobile in soils

Penflufen: Moderately mobile in soils

Metalaxyl: Moderately mobile in soils

Environmental precautions

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

Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Do not contaminate water, food, or feed by disposal.

Dispose in accordance with all local, state/provincial and federal regulations.

Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Contaminated packaging

Do not re-use empty containers.

Triple rinse containers.



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Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning.
If burned, stay out of smoke.
Follow advice on product label and/or leaflet.

RCRA Information

Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR Not dangerous goods / not hazardous material

IMDG

UN number **3082**
Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE, PENFLUFEN SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE, PENFLUFEN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1122

US Federal Regulations

TSCA list

Polyethylene-polypropylene copolymer 9003-11-6
1,2-Propanediol 57-55-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting



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None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

| | | |
|-----------------|---------|----|
| 1,2-Propanediol | 57-55-6 | MN |
|-----------------|---------|----|

Canadian Regulations

Canadian Domestic Substance List

| | |
|--------------------------------------|-----------|
| Polyethylene-polypropylene copolymer | 9003-11-6 |
|--------------------------------------|-----------|

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if swallowed or absorbed through skin.
Avoid contact with skin, eyes and clothing.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

| | | | |
|------------|------------------|-----------------|---------------|
| Health - 2 | Flammability - 0 | Instability - 0 | Others - none |
|------------|------------------|-----------------|---------------|

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

| | | | |
|------------|------------------|---------------------|-------|
| Health - 1 | Flammability - 0 | Physical Hazard - 0 | PPE - |
|------------|------------------|---------------------|-------|

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Bayer CropScience
SAFETY DATA SHEET



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