TOPROSE FUNGUS CONTROL & PROTECTION

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Version: 1 / Great Britain

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

1.1 Product identifier

Product Name	*TOPROSE* FUNGUS CONTROL & PROTECTION
Product code	86600038
Market Authorisation Number	MAPP 18223 / PCS No. 06001

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

Use	Fungicide Plant Protection Product (REACH PC27) AL: Any other liquid ready to use

1.3 Details of the supplier of the safety data sheet

Supplier	SBM Life Science Ltd Unit 2, Techno Park, Newmarket Road, Cambridge, CB5 8PB Great Britain
Phone number	+44 (0)1223 677611
Responsible Department	Email: sds@sbm-company.com

1.4 Emergency telephone number

Emergency telephone Number SBM	+1 813-676-1669
UK emergency telephone no.	+44 (0)800 3213079

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.

Physical Hazards:

No classification for physical hazards.

Health and Safety Hazards:

No classification for health and safety hazards.

Environmental Hazards:

Chronic aquatic toxicity – category 3
H412 Harmful 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:

Trifloxystrobin
Tebuconazole

Pictograms of hazards:

No pictograms required.

Signal word: No signal word required.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

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

Additional mentions:

EUH208 Contains 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Additional labelling:

No additional labelling required.

2.3 Other hazards

No other hazard known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not concerned.

3.2 Mixtures

Chemical nature

Any other liquids (AL)
Trifloxistrobin / Tebuconazole 0.0125:0.0125 %

Hazardous components

Hazard statements in accordance with Regulation (EC) No. 1907/2006

Ingredients	CAS Number / EC Number / Index Number	REACH Number / recording	Classification Regulation 1272/2008/EC	Environmental Hazards	Conc % (w/w)
Trifloxystrobin	141517-21-7 / No information available / No information available	No information available	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M-Factor : 100	0.0125
Tebuconazole	107534-96-3 / 403-640-2 / No information available	No information available	Acute Tox. 4, H302 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M-Factor: 1 M-Factor: 10	0.0125
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	55965-84-9 / No information available / No information available	No information available	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Aquatic Acute. 1, H400 Aquatic Chronic. 1, H410	No information available	>0.0002 - < 0.0015

1-Propanol	71-23-8 / 200-746-9 / No information available	No information available	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336	No information available	>1.00

Further information

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.

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.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Get medical attention if irritation develops and persists.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards No information available.

Treatments Systemic treatment: Treat symptomatically. 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. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet.

5.2 Special hazards arising from the substance or mixture

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

For non-emergency personnel	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Assure an appropriate ventilation.
For emergency responders	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Isolate the hazardous area and deny entry for all useless and non-protected people. Assure an appropriate ventilation.

6.2 Environmental precautions

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 containment	Contain the spread.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.
Additional advice	No additional advice.

6.4 Reference to other sections

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.
Advice on protection against fire and explosion	No special precautions required.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. 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 dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from freezing.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s)

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Types of exposures (occupational exposure, biological exposure)	Components	CAS Number	Exposure limit values	Sources of the exposures	Update	Base
No information available	Trifloxystrobin	141517-21-7	2.7 mg/m^3 (SK-SEN)	No information available	No information available	No information available
No information available	Tebuconazole	107534-96-3	0.2 mg/m^3 (SK-ABS)	No information available	No information available	No information available
No information available	1-Propanol	71-23-8	200 ppm (TLV)	No information available	No information available	No information available

Further information:

No further information.

8.2 Exposure controls

Appropriate engineering controls

Appropriate engineering controls Use the product in a well-ventilated area.

Individual protective measures, such as personal protective equipment

All the measures for collective protection should be set and use before to consider the use of 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	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	Personal protective equipment is not normally required. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered. 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 Protective index: class 6 Directive: protective gloves complying with EN 374.
Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection	Personal protective equipment is not normally required. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered. Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective 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.
Thermal protection	No information available.

Environmental exposure controls

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid, slightly turbid.
Colour	Colourless to light brown.
Odour	Alcohol-like.
Odour threshold	No information available.
pH	5.0 – 6.0 at 100 % (23°C)
Melting point / freezing point	No information available.
Initial boiling point and boiling range	No information available.
Flash Point	69.5°C at 1.013,3 hPa
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper / lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	Ca. 1.00 g/cm^3 at 20°C.
Solubility in water	Soluble.
Partition coefficient: n-octanol / water	Trifloxystrobin: log Pow: 4.5 at 25°C. Tebuconazole: log Pow: 3.7.
Auto-ignition temperature	>667°C

Decomposition temperature	No information available.
Dynamic viscosity	1.116 mm²/s at 20°C. 0.726 mm²/s at 40°C.
Explosive properties	Not explosive. 92/69/EEC, A. 14 / OECD 113.
Oxidising properties	No oxidizing properties.

9.2 Other information

Other information	Surface tension: 46.7 mN/m. Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition	Stable under normal conditions.

10.2 Chemical stability

Chemical stability	Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid

Conditions to avoid	Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Incompatible materials	Store only in the original container.

10.6 Hazardous decomposition products

Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	LD50 ≥ 5.000 mg/Kg – Rat.
Acute inhalation toxicity	LC50 > 5.604 mg/L – Rat Exposure time: 4 h.
Acute dermal toxicity	LD50 > 2.000 mg/Kg
Skin irritation / corrosion	No skin irritation – Rabbit
Serious eye damage / irritation	No eye irritation – Rabbit
Respiratory sensitisation	Non-sensitizing – Mouse OECD Test Guideline 429, local lymph node assay (LLNA).
Skin sensitisation	Non-sensitizing – Mouse OECD Test Guideline 429, local lymph node assay (LLNA).

Carcinogenicity:

Trifloxystrobin was not carcinogenic in lifetime feeding studies in rats and mice.
Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.

Germ cell mutagenicity:

Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Reproductive toxicity and fertility:

Trifloxystrobin 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 Trifloxystrobin is related to parental toxicity.
Tebuconazole 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 Tebuconazole is related to parental toxicity.

Specific target organ toxicity (single exposure / repeated exposure) :

Single Exposure: Tebuconazole: Based on available data, the classification criteria are not met.
Repeated Exposure: Trifloxystrobin did not cause specific target organ toxicity in experimental animal studies. Tebuconazole did not cause specific target organ toxicity in experimental animal studies.

Aspiration hazard:

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

Other information

No other information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 = 4.4 mg/L *Oncorhynchus mykiss* (rainbow trout) Period of exposure: 96 h Studied substance: Tebuconazole. LC50 = 0.015 mg/L *Oncorhynchus mykiss* (rainbow trout) Period of exposure: 96 h Studied substance: Trifloxystrobin.
Toxicity to aquatic invertebrates	EC50 = 86 mg/L *Daphnia magna* (water flea) Period of exposure: 48 h. NOEC = 0.01 mg/L *Daphnia* (water flea) Period of exposure: 21 days Studied substance: Tebuconazole.
Toxicity to aquatic plants	EC50 = 3.8 mg/L *Raphidocelis subcapitata* (freshwater green alga) Growth Rate - Period of exposure: 72 h Studied substance: Tebuconazole. EC50 = 0.0053 mg/L *Desmodesmus subspicatus* (green algae)

	Growth Rate – Period of exposure: 72 h Studied substance: Trifloxystrobin.
Toxicity for bees	No information available.
Toxicity for earth-worms	No information available.
Toxicity for birds	No information available.

12.2 Persistence and degradability

Biodegradability	Trifloxystrobin: Not rapidly biodegradable. Tebuconazole: Not rapidly biodegradable.
Koc	Trifloxystrobin: Koc: 2377. Tebuconazole: Koc: 769.

12.3 Bioaccumulative potential

Bioaccumulation	Trifloxystrobin: bioconcentration factor (BCF): 431 and does not bioaccumulate. Tebuconazole: bioconcentration factor (BCF): 35-59 and does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil	Trifloxystrobin: slightly mobile in soils. Tebuconazole: slightly mobile in soils.

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	Trifloxystrobin: 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). Tebuconazole: 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 Other adverse effects

Additional ecological information	No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Generalities	Avoid spread in the environment. Handle non-cleaned product like it is the product itself. DO NOT mix the product or the packaging with other wastes.
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

ADR/RID/ADN

14.1 UN number	Not applicable.
14.2 Proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environm. Hazardous Mark	Not applicable.
Hazard no.	Not applicable.

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	Not applicable.
14.2 Proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Marin pollutant	Not applicable.

IATA

14.1 UN number	Not applicable.
14.2 Proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environm. Hazardous Mark	Not applicable.

14.6 Special precautions for user

No special precautions for user.
See sections 6 and 8 of this safety data sheet.

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

Not concerned. 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

WHO-Classification	III (slightly hazardous)
Conformity with REACH annexes	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Conformity with CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Specific provisions:

No specific provisions.

15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the precautionary statements (P sentences) mentioned in Section 2:

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

Text of the hazard statements (H sentences) mentioned in Sections 2 and 3:

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause drowsiness or dizziness.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Text of hazards classes and categories mentioned in Sections 2 and 3:

Acute Tox. 3	Acute Toxicity – Category 3
Acute Tox. 4	Acute Toxicity – Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Toxicity – Category 1
Aquatic Chronic 1	Hazardous to aquatic environment – Chronic Toxicity – Category 1
Eye Dam. 1	Serious eye damage / eye irritation – Category 1

Flam. Liq. 2	Flammable liquids – Category 2
Repr. 2	Reproduction – Category 2
Skin Corr. 1B	Skin corrosion – Category 1B
Skin Sens. 1	Skin sensitization – Category 1
STOT SE 3	Specific Target Organ Toxicity – Single Exposure – Category 3

Abbreviations and acronyms

ADI	Acceptable Daily Intake
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
ARfD	Acute Reference Dose
A.S	Active Substance
ATE	Acute toxicity estimate
BCF	Bioconcentration Factor
CAS-Nr.	Chemical Abstracts Service number
CLP	Classification, Labelling, Packaging regulation
Conc.	Concentration
DMEL	Derived Minimal Effect Levels
DNEL	Derived No Effect Level
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)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
Koc	Absorption Coefficient
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
NOEC/NOEL	No observed effect concentration/level
N.O.S.	Not otherwise specified
OECD	Organization for Economic Co-operation and Development
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulative and Toxic substances
PNEC	Predicted No Effect Concentration
Pow	Partition coefficient: n-octanol / water
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern

TWA	Time weighted average
vPvB	Very Persistent and Very Bioaccumulative
UN	United Nations
WHO	World health organisation

Methods used for classification:

The classification of the product “Toprose Fungus Control & Protection” was calculated according to the methods described in EC 1272/2008 regulation, with regards to the dangers for the environment and for health.

Further information:

Note from SBM Life Science: This SDS was elaborated according to the SDS of the producer of the product.

Purpose of the reviewing:

Initial version of the Safety Data Sheet.

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

Additional information:

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 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 and the legislative and regulatory texts 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 than those for which it was intended. The information given in this data sheet have to be consider as a description of the requirements for the product and not consider as a guarantee or a quality specification concerning its properties. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.