

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: ESKER[®]
Product Code: 073-02
UFI Code: 9397-M33W-520Q-VWV3

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

Product Use: Fungicide

1.3 Details of the supplier of the safety data sheet

Company: Life Scientific Ltd,
Block 4,
Belfield Office Park,
Beech Hill Road,
Dublin 4
Ireland
Telephone: +353 (0) 1 2832024
Email: info@lifescientific.com
Web: www.lifescientific.com

1.4 Emergency contact information

In case of Emergency: Tel. NHS 111

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008

Skin irritation	Category 2	H315
Skin sensitisation	Category 1	H317
Eye irritation	Category 2	H319
STOT SE	Category 3	H335
Reproductive toxicity	Category 2	H361d
Acute aquatic	Category 1	H400
Aquatic Chronic	Category 1	H410

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard components which must be listed on the label:

- Tebuconazole
- Prothioconazole
- N,N-Dimethyl decanamide



Signal Word:

Warning

Hazard Phrases:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H410	Very toxic to aquatic life with long lasting effects

Precautionary Phrases:

P102	Keep out of reach of children
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	If exposed or concerned: Get medical advice/attention.
P391	Collect spillage
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple- rinsed empty containers which can be disposed of as non-hazardous waste.

Other Phrases:

EUH208	Contains 2-[2-(1-chlorocyclopropyl)-2-hydroxy-3-phenylpropyl]-2, 4-dihydro-3H-1,2,4- triazole-3-thione. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other Hazards

Special labelling of certain mixtures: To avoid risks to human health and environment comply with the instructions for use.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

No substances fulfil the criteria set out in Annex II, Part A of the REACH Regulation (EC) No 1907/2006.

3.2 Mixtures

Chemical Name	CAS	EC	Classification (Regulation (EC) No 1272/2008)	Concentration (% w/w)
Prothioconazole	178928-70-6	-	Aqua. Acute 1, H400 Aquatic Chronic 1, H410	16.3
Tebuconazole	107534-96-3	403-640-2	Acute Tox 4, H302 Repr. 2, H361d Aquatic Acute 1 H400 Aquatic Chronic 1, H410	8.2
N,N-Dimethyl decanamide	14433-76-2	238-405-1	Skin Irrit 2 H315 Eye Irrit 2 H319 STOT SE 3 H335 Aquatic Chronic 3 H412	>20

Further information

Prothioconazole	178928-70-6	M-Factor: 10 (Acute), 1 (chronic)
Tebuconazole	107534-96-3	M-Factor: 1 (Acute), 10 (chronic)

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 centre immediately.

Ingestion	Do NOT induce vomiting. Call a physician or poison control centre immediately. Rinse mouth.
Skin contact:	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control centre 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. Call a physician or poison control centre immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms

4.3 Indication of any immediate medical attention and special treatment needed

Information to physician: 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

In the event of fire the following may be released: Hydrogen chloride (HCl), Nitrogen oxides (NOx), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides

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

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. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

Additional advice Check also for any local site procedures.

6.4 Reference to other sections

No data is available.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

Advice on protection against fire and explosion
Take measures to prevent the build-up of electrostatic charge. Keep away from heat and sources of ignition.

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.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

Refer to the label and/or leaflet.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	CAS number	Control parameters	Source
Prothioconazole	178928-70-6	1.4 mg/m ³	Supplier
Tebuconazole	107534-96-3	0.2 mg/ m ³	Supplier

8.2 Exposure controls

Individual protection measures, such as 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.

Eye / face protection:

Avoid contact with eyes. Use safety eyewear designed to protect against liquid splashes. It is necessary to wear safety goggles in accordance with standard EN166.

Protection of hands:

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.

Body protection:

Wear standard coveralls and Category 3 Type 6 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.

Respiratory protection:

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. 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.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form:	Liquid
Colour:	Tan
Odour:	Characteristic
Melting point:	140.3 °C Prothioconazole 105 °C Tebuconazole
Boiling point/boiling range:	No data available
Flash point:	>100 °C
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	Not applicable
Vapour pressure:	No data available
Vapour density (air):	Not applicable
Density:	0.99 g/cm ³ at 20 °C
pH:	4.5 – 6.5 at (1%) (23°C)
Solubility(ies): Water	Dispersible
Partition coefficient: n-octanol/water:	Prothioconazole: log Pow: 3.82 at 20 °C Tebuconazole: log Pow: 3.7
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available

The information above is based on a similar product.

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

Explosive properties:	Non-explosive
Oxidising properties:	Non-oxidising

9.2.2 Other safety characteristics

None.

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 hazardous reactions

No data is available

10.4 Conditions to avoid

Extremes of temperature and direct sunlight

10.5 Incompatible material

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 toxicological effects

The data is based on similar product

Acute Oral Toxicity LD50 Rat:	> 5000 mg/kg
Acute inhalation toxicity LC50 Rat:	> 5.003 mg/L
Acute Dermal Toxicity LD50 Rat:	> 4000 mg/kg
Acute Eye Irritation, Rabbit:	Irritating to eyes
Acute Skin Irritation, Rabbit:	Irritating to skin
Sensitisation, Guinea pig:	Not sensitising

Assessment STOT Specific target organ toxicity – single exposure

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

Tebuconazole: 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.

Tebuconazole 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.

Tebuconazole 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.

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.

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.

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.

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.

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

Aspiration hazard

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

Further information

Irritating to respiratory system.

11.2 Information on other hazards
Endocrine disrupting properties

Product:

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) 3.94 mg/l Exposure time: 96 h

Toxicity to aquatic invertebrates

EC50 (Daphnia magna) 8.8 mg/l Exposure time: 48 h

Chronic toxicity to aquatic invertebrates

NOEC (Daphnia): 0.01 mg/l Exposure time: 21 d
The value mentioned relates to the active ingredient tebuconazole.

Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata) 9.5 mg/l Growth rate; Exposure time: 72 h

ErC50 (Skeletonema costatum) 0.03278 mg/l Growth rate; 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.

12.2 Persistence and degradability

Biodegradability: Prothioconazole is not readily biodegradable.
Tebuconazole is not readily biodegradable.

Koc: Prothioconazole: Koc:1765
Tebuconazole: Koc: 769

12.3 Bioaccumulative potential

Prothioconazole, does not bioaccumulate.
Tebuconazole does not bioaccumulate.

12.4 Mobility in soil

Mobility: Prothioconazole has slight mobility in soils.
Tebuconazole: Slightly mobile in soils.

12.5 Results of 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).

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 Endocrine disrupting properties

Product:

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

None.

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not discharge into drains or rivers. Waste management is performed without endangering human health and without harming the environment, and in particular without risk to water, air, soil, fauna and flora. Recycle or dispose of in accordance with current legislation, preferably via a certified collector or company. Do not contaminate the ground or water with waste; do not dispose of waste into the environment.

Contaminated packaging: Empty container completely, rinse three times. Keep the label on the recipient.

Section 14. TRANSPORT INFORMATION

Transport the product in accordance with the provisions of ADR for road, RID for rail, IMDG for the sea, and ICAO / IATA for air transport (ADR 2011 - IMDG 2010 - ICAO / IATA 2011).

14.1 UN Number

3082

14.2 UN proper shipping name

Environmentally hazardous substance, liquid, N.O.S., (TEBUCONAZOLE, PROTHIOCONAZOLE SOLUTION).

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Dangerous for the environment

14.6 Special precautions for user

See sections 6-8 of this Safety Data Sheet

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

No transport in bulk according to the IBC Code

Section 15. REGULATORY INFORMATION

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

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

15.2 Chemical safety assessment

None

Section 16. OTHER INFORMATION

Full list of relevant hazard and precautionary statements that were not given in full in sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H319	Causes severe eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic organisms with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information presented in this document is accurate to the best of our knowledge at the date of its publication. However, the information given is designed only as a guide for the methods of handling, storage, use, transportation and disposal of the product and is not considered a warranty or quality specification. Life Scientific Limited cannot be held responsible for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this document relates only to this specific product.

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First Issuance: 12/11/2019
Current Issuance: 01/11/2022