

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

1.1 Product Identifier

Product Name: **DIFENOSTAR**
Product Code: 049-01

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

UK ONLY In case of Emergency: Tel. NHS 111

1.5 UFI code - 6CAS-SDDS-F105-VNPQ

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aspiration hazard	Category 1	H304
Eye irritation	Category 2	H319
Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 1	H410

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard Pictograms:



Signal Word:

Danger

Hazard Phrases:

H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
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.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P501	Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Other Phrases:

EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
SP 1	Do not contaminate water with the product or its container. (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

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 No	EC No	Classification (Regulation(EC) 1272/2008)	No	Concentration (% w/w)
Difenoconazole	119446-68-3	NA	Acute Tox 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410		24 % w/w
2-methylpropan-1-ol	78-83-1	201-148-0	Flamm Liq 3, H226 Skin irrit. 2, H315 Serious Eye Damage, H318 STOT SE 3, H335 STOT SE 3, H336		1 – 3 % w/w
Poly(oxy-1,2-ethanediyl), alpha-9-octadecenyl - omega-hydroxy-, (Z)-	9004-98-2	500-016-2	Acute Tox 4, H302 Eye Damage 1, H318		1 – 5 % w/w
Calcium bis (dodecyl benzenesulphonate), branched	70528-83-5	274-654-2	Eye Damage 1, H318 Skin irrit 2, H315 Aquatic Chronic 2, H411		1 – 5 % w/w
Solvent naphtha (petroleum), highly aromatic	64742-94-5	265-198-5	Asp. Tox 1, H304 Aquatic Chronic 2, H411		55 – 70 % w/w

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information:	In the event of any complaints or symptoms, avoid further exposure. Treat symptomatically. If unwell, consult a physician showing the product container, label or this safety data sheet.
Inhalation:	If inhaled, remove victim to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, give artificial respiration. Consult a physician or Poison Control Centre immediately.
Ingestion:	DO NOT induce vomiting unless directed to do so by a Poison Control Centre. Never give anything by mouth to an unconscious person. Rinse mouth with plenty of water. Seek medical advice immediately.
Skin contact:	Remove contaminated clothing immediately. Wash immediately with plenty of water. If skin irritation persists, consult a physician. Wash contaminated clothing before re-use.

Eye contact: Remove contact lenses if present. Rinse immediately with plenty of water, with the eyelid open for at least 15 minutes. Obtain medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration may in some instances cause pulmonary oedema and pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physicians: There is no specific antidote available. Treat symptomatically. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

For small fires: Use water spray, dry chemical, alcohol-resistant foam or carbon dioxide.
For large fires: Use alcohol-resistant foam or water spray. Avoid using a solid water stream as it may cause the fire to scatter or spread.

5.2 Special hazards arising from the substance or mixture

This product contains combustible organic components. Fire will produce a thick black smoke containing hazardous products of combustion. Exposure to products of combustion may be a health hazard. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

Wear self-contained breathing apparatus with full face shield. Fight fire from a safe distance and a protected location.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment, see section 8. For safe handling and storage, see section 7

6.2 Environmental precautions

Prevent further leaking or spillage if safe to do so. Prevent entry into sewers and public waters. In the event of a major spillage, contact an expert immediately. Notify appropriate authorities if the product enters sewers or public waters. Make provisions to collect extinguishing water after fires. If the product contaminates rivers and lakes or drains, inform respective authorities

6.3 Methods and materials for containment and cleaning up

Contain spillage. Use non-combustible absorbent material to absorb spillage and place in container for disposal according to local/national legislation.

6.4 Reference to other sections

See Section 7 for information on handling and storage and Section 8 for information on PPE

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

No special technical protective measures required. No special handling advice required. Read label before use. DO NOT eat, drink or smoke during use. Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required. Keep containers tightly closed in a cool, dry and well-ventilated area. Keep out of reach of children. Keep separate from food, drink and animal feed.

7.3 Specific end use(s)

Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	Exposure Limit	Value Type	Source
Difenoconazole	5 mg/m ³	TWA	Supplier
2-methylpropan-1-ol	50 ppm, 154 mg/m ³ 75 ppm, 231 mg/m ³	TWA STEL	GB EH40
Solvent naphtha (petroleum), heavy aromatic	10 ppm, 50 mg/m ³	TWA	91/322/EEC

8.2 Exposure controls

Respiratory protection:	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment: Respirator with a particle filter (EN 143). The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Skin protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Impervious clothing.
Hand protection:	Use nitrile rubber or other suitable chemical-resistant gloves. Gloves should have a minimum breakthrough time (>480 min) that is appropriate to the duration of exposure. Gloves should be changed when breakthrough is suspected.
Eye protection:	If eye contact is possible, use tight-fitting chemical safety goggles. Equipment should conform to EN 166
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.
Hygiene measures:	When using, DO NOT eat, drink or smoke. Wash hands and face with soap and water before breaks. Shower at the end of the workday. Decontaminate protective clothing before re-use.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form	Liquid.
Colour	Pale amber.
Odour	Aromatic.

Chemical properties

pH (at 20 °C)	5.0 – 8.0 at 1% w/w
Boiling point (°C)	No data available
Flash point (°C)	80.25
Oxidising properties	Not oxidising
Explosive properties	Not explosive
Density (g/cm ³)	1.0415 at 20 °C
Solubility in water	No data available
Log P octanol/water at 20°C	No data available
Kinematic Viscosity (cm ² /s)	0.1304 at 20 °C

9.2 Other Information

Surface tension	36.197 mN/m at 25°C
-----------------	---------------------

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

No data is available.

10.2 Chemical Stability

This mixture is stable at the handling and storage conditions recommended in Section 7.

10.3 Possibility of hazardous reactions

None known. Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No data is available.

10.5 Incompatible material

No data is available.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD ₅₀ oral rat:	3,129 mg/kg (females).
LD ₅₀ subcutaneous rat:	> 5000 mg/kg.
LC ₅₀ inhalation rat:	> 5.17 mg/L, 4 h.
Eye irritation rabbit:	Moderate eye irritati.
Skin irritation rabbit:	No skin irritation.
Sensitisation guinea pig:	Does not cause skin sensitisation.
Long-term toxicity:	No evidence of carcinogenic, teratogenic or mutagenic effects in animal experiments.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

LC ₅₀ Rainbow trout (96 h):	3.7 mg/L
EC ₅₀ Daphnia magna (48 h):	4.3 mg/L
E,C ₅₀ Green algae (72 h):	4.4 mg/L
NOEC Green algae (72 h):	0.22 mg/L

12.2 Persistence and degradability

Stability in water: Difenoconazole is not persistent in water.
Stability in soil: Difenoconazole is not persistent in soil.

12.3 Bioaccumulative potential

Difenoconazole has high potential for bioaccumulation.

12.4 Mobility in soil

Difenoconazole has low mobility in soil.

12.5 Results of PBT and vPvB 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

12.6 Other adverse effects

None

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal procedures: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible, recycling is preferred to disposal or incineration. If recycling is not practical, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents. Triple rinse containers. Do not re-use empty containers. Empty containers should be taken for local recycling or waste disposal.

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

14.1 UN Number

3082

14.2 UN proper shipping name

Environmentally hazardous substance, liquid, N.O.S., (Difenoconazole and solvent naphtha).

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Marine pollutant, Environmentally hazardous

14.6 Special precautions for user

None

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

No Information available

Section 15. REGULATORY INFORMATION

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

To avoid risks to man and the environment comply with the instructions for use.

The mixture contains no ' substances of very high concern "(SVHC) published by the European Chemicals Agency (ECHA) under Article 57 of REACH <http://echa.europa.eu/uk/candidate-list-table>

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.

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes severe eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH401	Follow the instructions to avoid risks to human health and the environment.

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.

First Issuance: 15/06/2017
Current Issuance: 25/05/2021