

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

1.1 Product Identifier

Product Name: FRISBE®
Product Code: 158-03

Other means of identification

Unique Formula Identifier (UFI) 3WM5-JJRN-240E-D7X6

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. NPIC +353 (01) 809 2166 (8.00 a.m. to 10.00 p.m. - Public)
Tel. NPIC +353 (01) 809 2566 (Healthcare Professionals)

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Eye Irritation	Category 2	H319
Respiratory Irritation	Category 3	H335
Aquatic Chronic	Category 1	H410

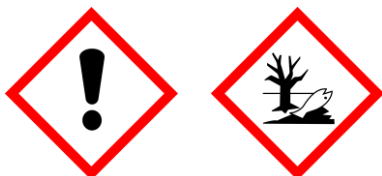
2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazardous components which must be listed on the label:

- Bixafen
- Prothioconazole
- N,N-Dimethyl decanamide

Hazard Pictograms:



Signal Word:

Warning

Hazard Phrases:

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Phrases:

P102 Keep out of reach of children
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P280 Wear eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and if they can be easily removed. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
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:

EUH208 Contains prothioconazole, may produce an allergic reaction.
EUH401 To avoid risk to human health and the environment, comply with the instructions for use.
SP1 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.
Spe3 To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

2.3 Other Hazards

This 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.

The 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

3.1 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)
Bixafen	581809-46-3	-	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	7.426
Prothioconazole	178928-70-6	-	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	14.851
2-[2-(1-chlorocyclopropyl)-2-hydroxy-3-phenylpropyl]-2,4-dihydro-1,2,3-triazole-3-thione	-		Skin Sens. 1; H317	> 0.1 - < 1
2-Ethylhexanol propylene ethyleneglycol ether	64366-70-7		Aquatic Chronic 3; H412	> 1.00 - < 25.00
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	≥25

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: 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:	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.
Skin contact:	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
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. If eye irritation or redness persists, see an ophthalmologist.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: None known.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physicians: There is no specific antidote available. 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.

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), Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NO_x), Sulphur oxides.

5.3 Advice for firefighters

Special protective equipment for fire fighters: 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 firefighting 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 the product contaminates rivers and lakes or drains inform respective authorities.

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

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

Advice on Protection against fire and explosion: 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: Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.

Suitable materials: HDPE (high density polyethylene) container
Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)

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-No.	Control Parameters	Source
Bixafen	581809-46-3	0.6 mg/m ³ (TWA)	OES BCS*
Prothioconazole	178928-70-6	1.4 mg/m ³ (SK-ABS)	

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

When using this product refer to the label for details. In all other cases, use the following Personal Protective Equipment:

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.

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 type of 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.

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
	Protective index	Class 6
	Directive	Protective gloves complying with EN 374.
Eye protection:	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).	
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. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.	
Protective measures:	The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.	

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid, clear to slightly turbid.
Colour:	Yellow to Brown.
Odour:	Characteristic.
Odour Threshold:	No data available.
Melting point (°C):	No data available.
Boiling point (°C):	No data available.
Flammability:	No data available.
Lower and upper exp. Limit:	No data available.
Flash Point:	> 100°C.
Auto. Ignition temp (°C):	No data available.
Ignition temp (°C):	375°C.
Self-acclerating decomposition temperature (SADT):	No data available.
pH (at 20 °C):	4.0 - 6.0 (1 %) (23 °C) (deionized water)
Viscosity, dynamic:	No data available.
Kinematic viscosity:	33.7 mm ² /s (40 °C) Shear rate of 20/sec.
Solubility:	Miscible.
Part. Coef. m-octanol/water:	Bixafen: log Pow: 3.3 (40 °C) Prothioconazole: log Pow: 3.82 (20 °C) (pH 7) N,N-Dimethyldecanamide: log Pow: 2.46
Surface tension:	32 mN/m (25 °C) Determined in the undiluted form.
Vapour pressure:	No data available.
Density and/or relative den.:	ca. 1.01 g/cm ³ (20 °C).
Relative vapour density:	No data available.
Particle characteristics:	This substance/mixture does not contain nanoforms.
Particle size:	No data available.

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

Explosivity:	Not Explosive.
Oxidising properties:	Not Oxidising.
Evaporation rate:	No data available.
Other physico-chemical	Further safety related physical-chemical data are not known.

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 hazardous reactions when stored and handled according to prescribed instructions.

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 hazard classes as defined in Regulation (EC) No 1272/2008

LD ₅₀ oral rat:	>2000 mg/kg.
Acute inhalation tox:	ATE (Mix) > 5 mg/l Calculation method During intended and foreseen applications, no respirable aerosol is formed.
	Irritating to respiratory system. The data refer to N,N-Dimethyldecanamid.
LD ₅₀ dermal rat:	>2000 mg/kg.
Eye irritation/serious eye damage rabbit:	Irritating to eyes.
Skin irritation/corrosion rabbit:	Not irritating.
Respiratory or skin sensitisation mouse:	Non-sensitizing. OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – Single Exposure

Bixafen: Based on available data, the classification criteria are not met.
Prothioconazole: Based on available data, the classification criteria are not met.
N,N-Dimethyldecan-1-amide: May cause respiratory irritation.

Assessment STOT Specific target organ toxicity – Repeated Exposure

Bixafen did not cause human relevant specific target organ toxicity in experimental animal studies. Prothioconazole did not cause specific target organ toxicity in experimental animal studies.
N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

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

Assessment Carcinogenicity

Bixafen was not carcinogenic in lifetime feeding studies in rats and mice.
Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.
N,N-Dimethyldecanamide is not considered carcinogenic.

Assessment Toxicity to Reproduction

Bixafen did not cause reproductive toxicity in a two-generation study in rats.
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.
N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

Assessment Developmental Toxicity

Bixafen did not cause developmental toxicity in rats and rabbits.
Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.
N,N-Dimethyldecanamide 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

The 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

LC ₅₀ <i>Oncorhynchus mykiss</i> (96 h):	1.55mg/l.
EC ₅₀ <i>Daphnia magna</i> (48 h):	3.0mg/l.
EC ₅₀ <i>Raphidocelis subcapitata</i> (72 h):	1.52mg/l.
EC ₁₀ <i>Skeletonema costatum</i> (72 h):	0.01427mg/l (the value relates to prothioconazole)
E _{C50} <i>Skeletonema costatum</i> (72 h):	0.03278mg/l (the value relates to prothioconazole)

12.2 Persistence and degradability

Biodegradability:	Bixafen: Not rapidly biodegradable.
	Prothioconazole: Not rapidly biodegradable.
	N,N-Dimethyldecanamide: Rapidly biodegradable.
Koc	Bixafen: 3869 Prothioconazole: 1765

12.3 Bioaccumulative potential

Bixafen:	Bioconcentration factor (BCF) 695 Does not bioaccumulate.
Prothioconazole:	Bioconcentration factor (BCF) 19 Does not bioaccumulate.
N,N-Dimethyldecanamide:	Does not bioaccumulate.

12.4 Mobility in soil

Bixafen:	Slightly mobile in soils
Prothioconazole:	Slightly mobile in soils
N,N-Dimethyldecanamide:	Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6 Endocrine disrupting properties

The 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

Waste disposal procedures: It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

Contaminated packaging: Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling.
Dispose of empty and cleaned packaging safely. Follow advice on product label and/or leaflet.

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., (BIXAFEN SOLUTION).

14.3 Transport hazard class(es)

9.

14.4 Packing group

III.

14.5 Environmental hazards

YES.
ADR/RID/ADN Hazard No. 90.

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

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Maritime 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 regulation/legislation specific for the substance or mixture

Republic of Ireland Regulations

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

Supply and Use

European Communities (Prohibition of Certain Active Substances in Plant Protection Products) Regulations 1981 (SI No 320/1981)
European Communities (Authorization, Placing on the Market, Use and Control of Plant Protection Products) Regulations 2003 (SI No 83/2003)
European Communities (Classification, Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations 2001 (SI No 624/2001)
2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001 (SI No 619/2001).

Waste Treatment

Landfill Directive
Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)

Further Information

WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

Section 16. OTHER INFORMATION

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

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions of use.

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.

FRISBE® is a registered Trademark of Life Scientific Ltd.

First Issuance:	24/02/2026
Current Issuance:	24/02/2026