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

1.1 Product Identifier

Product Name: SUMIR
Product Description: Suspension Concentrate

Chemical description of active substance (s): N-(2,6-difluorophenyl)-8-fluoro-5-methoxy(1,2,4)-triazolo-(1,5c)pyrimidine-2-sulfonamide

Chemical Family: Triazolopyrimidine sulfonanilide
GCPF code: SC (Suspension Concentrate)

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

Product Use : Agriculture – Herbicide

1.3 Details of the supplier of the safety data sheet

Company: Life Scientific Limited,
Block 4,
Belfield Office Park,
Beech Hill Road,
Dublin 4,
Ireland
Telephone: +353 (0) 1 2832024
Fax: +353 (0) 1 2832026
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

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:

Warning

Hazard Phrases:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Phrases:

P102 Keep out of reach of children.
P391 Collect spillage
P501 Dispose of content/container in compliance with local and national regulations.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
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).

Substance does/does not meet the criteria for vPvB according to regulation (EC) No 1907/2006, Annex III.

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) No 1272/2008)	Concentration (% $^{w}/_{w}$)
Florasulam	145701-23-1	-	Aquatic Acute1; H400 Aquatic Chronic1; H410	0-5
Propylene glycol	57-55-6	200-338-0	Not classified	<10

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, if by mouth to mouth use rescuer protection (pocket mask etc). 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. Seek medical advice immediately and show the product container, label or data sheet if possible.

Skin contact: Remove contaminated clothing immediately. Wash skin immediately with plenty of water. If skin irritation persists, consult a physician. Wash contaminated clothing before re-use.

Eye contact: Rinse immediately with plenty of water, with the eyelid open for at least 15 minutes, removing contact lenses (if present) after the first 5 minutes. Obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No known symptoms. Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

None

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

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 hazards products of combustion. Exposure to products of combustion may be a health hazard.
Combustion products may include trace amounts of: Sulfur oxides. Nitrogen oxides. Hydrogen halides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus with full face shield. Fight fire from a safe distance and a protected location. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

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. To maintain product quality, recommended storage temperature is > -5 °C

7.3 Specific end use(s)

None.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	Exposure Limits	Category	Source
Propylene glycol	10 mg/m^3	TWA (Particulate)	WEL (UK)

8.2 Exposure controls

Respiratory protection: Use self-contained breathing apparatus in case of emergency spills.

Skin protection: Wear suitable chemical-resistant clothing based on the potential for skin contact.

Hand protection: Use nitrile or other suitable chemical-resistant gloves. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.

Eye protection: Eye protection is not usually required. Follow any site-specific eye protection policies.

Engineering measures: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical State: Liquid
Form: Liquid
Color: White to off-white
Odor: Mild

Chemical Properties

pH (1%): 4.0 – 5.0
Density (g/cm3 at 20 ˚C): 1.03
Solubility in water: Soluble
Solubility in other solvents: No data available
Coefficient: n-octanol/water: No data available
Explosive properties: Not explosive
Oxidizing Properties: Not oxidising

9.2 Other Information

None

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

None

10.2 Chemical Stability

This mixture is stable at the handling normal storage conditions.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

Avoid: Extreme Heat

10.5 Incompatible material

Strong basic, acidic or oxidising agents.

10.6 Hazardous decomposition products

Burning will produce toxic and irritant vapours

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD_{50} oral rat	>5000 mg/kg
LD_{50} percutaneous rat	>2000 mg/kg.
LC_{50} inhalation rat	> 5 mg/L/4 h.
Eye irritation rabbit	Non irritant.
Skin irritation rabbit	Non irritant.
Sensitisation guinea pig	Not sensitising.
Mutagenicity:	No evidence in animal experiments.
Carcinogenicity:	No evidence in animal experiments.
Developmental Toxicity:	No evidence in animal experiments.
Reproductive Toxicity:	No evidence in animal experiments.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

LC_{50} Rainbow trout (96 h)	>100 mg/L
EC_{50} Daphnia magna (48 h)	>100 mg/L
EC_{50} Lemna minor (14 d)	0.0413 mg/L
E_bC_{50} Green algae (72h)	0.0611 mg/L
Oral LD_{50} Anas platyrhynchos	2250mg/kg bodyweight
Oral LD_{50} Apis mellifera (24h)	>70.25µg/bee
Contact LD_{50} Apis mellifera (24h)	>100 µg/bee
LC_{50} Eisenia fetida	>1033mg/kg

12.2 Persistence and degradability

Florasulam
Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
Stability in Water (1/2-life): > 30 d
Theoretical Oxygen Demand: 0.85 mg/mg

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
2 %	28 d	OECD 301B Test	Fail

Indirect Photodegradation with OH Radicals:

Rate Constant	Atmospheric Half-life	Method
7.04E-11 cm3/s	1.82 h	Estimated

Propylene glycol
Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
81 %	28 d	OECD 301F Test	Pass
96 %	64 d	OECD 306 Test	Not applicable

12.3 Bioaccumulative potential

Florasulam

Bioaccumulation:	Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient, n-octanol/water (log Pow):	-1,22
Bioconcentration Factor (BCF):	0.8; Fish (measured)

Propylene Glycol

Bioaccumulation:	Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient, n-octanol/water (log Pow):	-1,07 (measured)
Bioconcentration Factor (BCF):	0.9; (estimated)

12.4 Mobility in soil

Florasulam

Mobility in soil:	Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc):	4 – 54
Henry's Law Constant (H):	4.35E-07 Pa*m3/mole.; 20 °C

Propylene Glycol

Mobility in soil:	Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient, soil organic carbon/water (Koc):	< 1 Estimated.
Henry's Law Constant (H):	1.2E-08 atm*m3/mole (measured)

12.5 Results of PBT and vPvB assessment

Florasulam
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Propylene Glycol
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB

12.6 Other adverse effects

Florasulam
This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Propylene Glycol
This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal procedures:	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.
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 in compliance with provisions of the ADR for road, RID for rail, IMDG for 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. (Florasulam)

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Marine pollutant, Dangerous to the environment

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

None

15.2 Chemical safety assessment

None

Section 16. OTHER INFORMATION

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

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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The information presented in this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. However, the information given is designed only as a guidance for methods of handling, storage, use, transportation and disposal of the product, and is not considered to be a warranty or quality specification. Life Scientific Limited shall not be held liable for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this MSDS relates only to this specific product and may not be valid if this product is used in combination with any other products.