SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Lumiposa

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.06.2024	800080100739	Date of first issue: 06.06.2024

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Lumiposa

Unique Formula Identifier (UFI) : GE2C-40AQ-J00A-4J5T

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

Use of the Substance/Mixture : Insecticide

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION
Manufacturer/importer
Corteva Agriscience UK Ltd
Melbourn Science Park - Cambridge Road - Unit H4, Building H
Melbourn Cambridgeshire - SG8 6HB
UNITED KINGDOM

Customer Information Number : +44 1462 457272
E-mail address : SDS@corteva.com

1.4 Emergency telephone number

+44 161 88 41235

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal word : Warning

Hazard statements : H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to a licensed hazardous-waste disposalcontractor or collection site except for empty clean containers whichcan be disposed of as non-hazardous waste.

Additional Labelling

EUH208	Contains 5-chloro-2-methyl-4-isothiazolin-3-one, 2-methylisothiazol-3(2H)-one. 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

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.

Ecological information: 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.

Toxicological information: 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 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
cyantraniliprole	736994-63-1	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	50
Alcohols, C12-C15, ethoxylated	68131-39-5 500-195-7	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 _____ M-Factor (Acute aquatic toxicity): 1	>= 0.3 - < 1
5-chloro-2-methyl-4-isothiazolin-3-one	26172-55-4 247-500-7	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 0.0002 - < 0.0025
2-methylisothiazol-3(2H)-one	2682-20-4 220-239-6 613-326-00-9	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317	<= 0.0002

		Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1 _____ specific concentration limit Skin Sens. 1A; H317 >= 0.0015 %	
Substances with a workplace exposure limit :			
Propanediol	57-55-6 200-338-0 01-2119456809-23-0057, 01-2119456809-23-0085, 01-2119456809-23-0086, 01-2119456809-23-0088		>= 3 - < 10
Glycerol	56-81-5 200-289-5		>= 3 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Never give anything by mouth to an unconscious person.
For specialist advice physicians should contact the National Poisons Information Service: Tel. 111 for England and Wales and Tel. 08454 24 24 24 for Scotland.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

In case of skin contact : The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable.
Consult a physician if necessary.

In case of eye contact : The material is not likely to be hazardous by eye contact, but flushing the eye if contact occurs is advisable.
Consult a physician if necessary.

If swallowed : No specific intervention is indicated as the compound is not likely to be hazardous.
Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Nitrogen oxides (NOx)
Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up remaining materials from spill with suitable absorbant.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped,
Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.
Keep in suitable, closed containers for disposal.
Wipe up with absorbent material (e.g. cloth, fleece).
See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Handle in accordance with good industrial hygiene and safety practice.
Smoking, eating and drinking should be prohibited in the application area.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Separate rooms are required for washing, showering and changing clothes.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a closed container. Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : Strong oxidizing agents

Packaging material : Unsuitable material: None known.

7.3 Specific end use(s)

Specific use(s) : Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propanediol	57-55-6	Long-term exposure limit (8-hour TWA reference period) (Total vapour and particles)	150 ppm 474 mg/m3	GB EH40
		Long-term exposure limit (8-hour TWA reference period) (particles)	10 mg/m3	GB EH40
Glycerol	56-81-5	Long-term exposure limit (8-hour TWA reference period) (Mist)	10 mg/m3	GB EH40
5-chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	Time weighted average	0.075 mg/m3	Dow IHG
		Short term exposure limit	0.23 mg/m3	Dow IHG
2-methylisothiazol-3(2H)-one	2682-20-4	Time weighted average	1.5 mg/m3	Dow IHG
		Short term exposure limit	4.5 mg/m3	Dow IHG

Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
Propanediol	Workers	Inhalation	Long-term local effects	10 mg/m3
	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Consumers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Inhalation	Long-term systemic effects	50 mg/m3
Glycerol	Workers	Inhalation	Long-term local effects	56 mg/m3

	Consumers	Ingestion	Long-term systemic effects	229 mg/kg bw/day
	Consumers	Inhalation	Long-term local effects	33 mg/m3
Alcohols, C12-C15, ethoxylated	Workers	Inhalation	Long-term systemic effects	294 mg/m3
	Workers	Skin contact	Long-term systemic effects	2080 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	87 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1250 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	25 mg/kg bw/day

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
Propanediol	Fresh water	260 mg/l
	Marine water	26 mg/l
	Intermittent use/release	183 mg/l
	Sewage treatment plant	20000 mg/l
	Fresh water sediment	572 mg/kg
	Marine sediment	57.2 mg/kg
	Soil	50 mg/kg
Glycerol	Fresh water	0.885 mg/l
	Marine water	0.0885 mg/l
	Intermittent use/release	8.85 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	3.3 mg/kg
	Marine sediment	0.33 mg/kg
	Soil	0.141 mg/kg
Alcohols, C12-C15, ethoxylated	Fresh water	0.0446 mg/l
	Marine water	0.0446 mg/l
	Intermittent use/release	0.0446 mg/l
	Sewage treatment plant	10 g/L
	Fresh water sediment	41.3 mg/kg
	Marine sediment	41.3 mg/kg
	Soil	1 mg/kg

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Use sufficient ventilation to keep employee exposure below recommended limits.

Personal protective equipment

Eye/face protection : Use safety glasses (with side shields).

Hand protection

Remarks : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate

("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Skin and body protection	:	Applicators and other handlers must wear: Long sleeved shirt and long pants Shoes plus socks Chemical resistant gloves made of any waterproofmaterial
Respiratory protection	:	Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with organic vapour cartridge.
Protective measures	:	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	White - Grey, opaque
Odour	:	chemical.
pH	:	6.10 Method: CIPAC MT 75.3
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 93 °C Method: Closed Cup
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Relative density	:	1.2428
Density	:	1.2428 g/mL (20 °C) Method: EC Method A3
Explosive properties	:	Method: EC Method A.14 Not explosive
Oxidizing properties	:	No data available

9.2 Other information

Surface tension	:	30.8 mN/m, 25 °C, EC Method A5
Self-ignition	:	22 °C 100.9 - 101.7 kPa Auto-ignition temperature Method: EC Method A15

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.
Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	Strong acids Strong bases

10.6 Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

cyantraniliprole:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: Estimated.
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Method: Estimated.

Alcohols, C12-C15, ethoxylated:

Acute oral toxicity : LD50 (Rat): > 1,000 mg/kg
Method: Estimated.

Acute inhalation toxicity : LC50 (Rat): 1.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: For similar material(s):

Remarks: Brief exposure (minutes) is not likely to cause adverse effects.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

5-chloro-2-methyl-4-isothiazolin-3-one:

Acute oral toxicity : LD50 (Rat): 64 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.33 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 87.12 mg/kg

2-methylisothiazol-3(2H)-one:

Acute oral toxicity : LD50 (Rat, female): 183 mg/kg
Method: OECD Test Guideline 401

LD50 (Rat, male): 235 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 0.11 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 242 mg/kg
Method: OECD Test Guideline 402

Propanediol:

Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg

Acute inhalation toxicity : LC50 (Rabbit): 317.042 mg/l
Exposure time: 2 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Mist may cause irritation of upper respiratory tract (nose and throat).

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

Glycerol:

Acute oral toxicity : LD50 (Rat): > 11,500 mg/kg
Remarks: Excessive exposure may cause:
Central nervous system effects.
Observations in humans include:
Altered blood sugar levels.

Acute inhalation toxicity : LC50 (Rat): > 2.75 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred following exposure to a saturated atmosphere.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Guinea pig): >= 56,750 mg/kg

Skin corrosion/irritation

Components:

Alcohols, C12-C15, ethoxylated:

Species : Rabbit
Result : Skin irritation

5-chloro-2-methyl-4-isothiazolin-3-one:

Species : Rabbit
Result : Corrosive

2-methylisothiazol-3(2H)-one:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive

Propanediol:

Species : Rabbit
Result : No skin irritation

Glycerol:

Result : No skin irritation

Serious eye damage/eye irritation

Components:

Alcohols, C12-C15, ethoxylated:

Species	:	Rabbit
Result	:	Corrosive

5-chloro-2-methyl-4-isothiazolin-3-one:

Species	:	Rabbit
Result	:	Corrosive

2-methylisothiazol-3(2H)-one:

Species	:	Rabbit
Result	:	Corrosive

Propanediol:

Species	:	Rabbit
Result	:	No eye irritation

Glycerol:

Result	:	No eye irritation

Respiratory or skin sensitisation

Product:

Test Type	:	Buehler Test
Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 406
Remarks	:	Information source: Internal study report

Components:

Alcohols, C12-C15, ethoxylated:

Remarks	:	Did not cause allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

5-chloro-2-methyl-4-isothiazolin-3-one:

Species	:	Guinea pig
Result	:	May cause sensitisation by skin contact.

2-methylisothiazol-3(2H)-one:

Species	:	Guinea pig
Assessment	:	The product is a skin sensitiser, sub-category 1A.

Method	:	OECD Test Guideline 406
Remarks	:	Has caused allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

Propanediol:

Species	:	human
Assessment	:	Does not cause skin sensitisation.

Germ cell mutagenicity

Components:

cyantraniliprole:

Germ cell mutagenicity- Assessment	:	Animal genetic toxicity studies were negative.

5-chloro-2-methyl-4-isothiazolin-3-one:

Germ cell mutagenicity- Assessment	:	In vitro genetic toxicity studies were negative in some cases and positive in other cases., Animal genetic toxicity studies were negative.

2-methylisothiazol-3(2H)-one:

Germ cell mutagenicity- Assessment	:	Negative in genetic toxicity tests.

Propanediol:

Germ cell mutagenicity- Assessment	:	In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

Glycerol:

Germ cell mutagenicity- Assessment	:	In vitro genetic toxicity studies were negative.

Carcinogenicity

Components:

cyantraniliprole:

Carcinogenicity - Assessment	:	Did not cause cancer in laboratory animals.

5-chloro-2-methyl-4-isothiazolin-3-one:

Carcinogenicity - Assessment	:	Did not cause cancer in laboratory animals.

2-methylisothiazol-3(2H)-one:

Carcinogenicity - Assessment	:	Did not cause cancer in laboratory animals.

Propanediol:

Carcinogenicity - Assessment	:	Did not cause cancer in laboratory animals.

Glycerol:

Carcinogenicity - Assessment	:	For the major component(s):, Did not cause cancer in laboratory animals.

Reproductive toxicity

Components:

cyantraniliprole:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction. Did not cause birth defects or any other fetal effects in laboratory animals.

5-chloro-2-methyl-4-isothiazolin-3-one:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction.

2-methylisothiazol-3(2H)-one:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction. Did not cause birth defects in laboratory animals.

Propanediol:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction., In animal studies, did not interfere with fertility. Did not cause birth defects or any other fetal effects in laboratory animals.

Glycerol:

Reproductive toxicity - Assessment	:	Reproductive effects seen in female animals are believed to be due to altered nutritional states resulting from extremely high doses of glycerine given in the diet. Similar effects have been seen in animals fed synthetic diets. Did not cause birth defects or any other fetal effects in laboratory animals.

STOT - single exposure

Product:

Assessment	:	Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Components:

cyantraniliprole:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Alcohols, C12-C15, ethoxylated:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

5-chloro-2-methyl-4-isothiazolin-3-one:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Propanediol:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Glycerol:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Repeated dose toxicity

Components:

cyantraniliprole:

Remarks : In animals, effects have been reported on the following organs:
Liver
Blood
thyroid

Alcohols, C12-C15, ethoxylated:

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

5-chloro-2-methyl-4-isothiazolin-3-one:

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

2-methylisothiazol-3(2H)-one:

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Propanediol:

Remarks : In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

Glycerol:

Remarks : Excessive exposure to glycerine may cause increased fat levels in blood.

Aspiration toxicity

Product:

Based on physical properties, not likely to be an aspiration hazard.

Components:

cyantraniliprole:

Based on available information, aspiration hazard could not be determined.

Alcohols, C12-C15, ethoxylated:

Based on available information, aspiration hazard could not be determined.

5-chloro-2-methyl-4-isothiazolin-3-one:

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

2-methylisothiazol-3(2H)-one:

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Propanediol:

Based on physical properties, not likely to be an aspiration hazard.

Glycerol:

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Components:

cyantraniliprole:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 12.6 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.0204 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 13 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to fish (Chronic toxicity)	:	NOEC: 10.7 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout) Test Type: Early Life-Stage Method: OECD Test Guideline 210 NOEC: 2.9 mg/l Exposure time: 28 d Species: Cyprinodon variegatus (sheepshead minnow) Test Type: Early Life-Stage Method: US EPA Test Guideline OPPTS 850.1400
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.00656 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: Static-Renewal Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	:	10
Toxicity to terrestrial organisms	:	oral LD50: > 2,250 mg/kg Species: Colinus virginianus (Bobwhite quail) dietary LC50: > 5,620 ppm Species: Anas platyrhynchos (Mallard duck)

Alcohols, C12-C15, ethoxylated:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.14 mg/l Exposure time: 48 h Test Type: Static
Toxicity to algae/aquatic plants	:	ErC50 (Selenastrum capricornutum (green algae)): 0.75 mg/l Exposure time: 72 h Remarks: For similar material(s): (Pseudokirchneriella subcapitata (microalgae)): 0.07 mg/l End point: Not available Exposure time: 96 h Method: Method Not Specified.
M-Factor (Acute aquatic toxicity)	:	1

Toxicity to fish (Chronic toxicity)	:	NOEC: 0.28 mg/l Exposure time: 30 d Species: Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.77 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

5-chloro-2-methyl-4-isothiazolin-3-one:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 or Equivalent LC50 (Bluegill sunfish (Lepomis macrochirus)): 0.28 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.16 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	NOEC (Selenastrum capricornutum (green algae)): 0.0099 mg/l End point: Growth rate EC50 (Algae (Selenastrum capricornutum)): 0.018 mg/l End point: Growth rate Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to microorganisms	:	EC50 (Bacteria): 5.7 mg/l Exposure time: 16 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.172000 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea) LOEC: 0.572000 mg/l End point: number of offspring Exposure time: 21 d Species: Daphnia magna (Water flea)
M-Factor (Chronic aquatic toxicity)	:	1

2-methylisothiazol-3(2H)-one:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 4.77 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 or Equivalent
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): 0.93 - 1.9 mg/l Exposure time: 48 h

Toxicity to algae/aquatic plants	:	EC50 (Algae (Selenastrum capricornutum)): 0.158 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.04 mg/l Exposure time: 21 d Species: Daphnia magna Method: OECD Test Guideline 211 or Equivalent
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Very toxic to aquatic life with long lasting effects.

Propanediol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 19,000 mg/l End point: Growth rate inhibition Exposure time: 96 h Method: OECD Test Guideline 201
Toxicity to microorganisms	:	NOEC (Pseudomonas putida): > 20,000 mg/l Exposure time: 18 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 13,020 mg/l End point: number of offspring Exposure time: 7 d Species: Ceriodaphnia dubia (water flea) Test Type: semi-static test

Glycerol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): >= 885 mg/l Exposure time: 96 h Test Type: static test Method: Method Not Specified.

Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): 1,955 mg/l Exposure time: 48 h Test Type: static test Method: Method Not Specified.
Toxicity to algae/aquatic plants	:	EC50 (Other): 2,900 mg/l End point: Growth inhibition (cell density reduction) Exposure time: 192 h Test Type: static test Method: Method Not Specified.
Toxicity to microorganisms	:	EC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Method: OECD 209 Test

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: Not readily biodegradable. Estimation based on data obtained on active ingredient.

Components:

cyantraniliprole:

Biodegradability	:	Result: Not readily biodegradable.

Alcohols, C12-C15, ethoxylated:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, domestic, non-adapted Concentration: 20 mg/l Result: Readily biodegradable. Biodegradation: 61 % Exposure time: 28 d Method: OECD Test Guideline 301B or Equivalent Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. 10-day Window: Fail

5-chloro-2-methyl-4-isothiazolin-3-one:

Biodegradability	:	Test Type: aerobic Concentration: 6 mg/l Result: Readily biodegradable. Biodegradation: 98 % Exposure time: 2 d Method: OECD Test Guideline 302B or Equivalent Remarks: 10-day Window: Not applicable

2-methylisothiazol-3(2H)-one:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 98 %

Exposure time: 48 d
Method: Simulation study
Remarks: Material is expected to be readily biodegradable.

Propanediol:

Biodegradability	:	Test Type: aerobic Result: Readily biodegradable. Biodegradation: 81 % Exposure time: 28 d Method: OECD Test Guideline 301F or Equivalent Remarks: 10-day Window: Pass Biodegradation: 96 % Exposure time: 64 d Method: OECD Test Guideline 306 or Equivalent Remarks: 10-day Window: Not applicable
Biochemical Oxygen Demand (BOD)	:	69.000 % Incubation time: 5 d 70.000 % Incubation time: 10 d 86.000 % Incubation time: 20 d
Chemical Oxygen Demand (COD)	:	1.53 kg/kg
ThOD	:	1.68 kg/kg
Photodegradation	:	Rate constant: 1.28E-11 cm3/s Method: Estimated.

Glycerol:

Biodegradability	:	Result: Readily biodegradable. Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation: 63 % Exposure time: 14 d Method: OECD Test Guideline 301C or Equivalent Remarks: 10-day Window: Not applicable
ThOD	:	1.22 kg/kg

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Does not bioaccumulate. Estimation based on data obtained on active ingredient.

Components:

Alcohols, C12-C15, ethoxylated:

Bioaccumulation	:	Bioconcentration factor (BCF): 81.07 Method: Calculated.
Partition coefficient: n-octanol/water	:	log Pow: 3.4 Method: estimated

5-chloro-2-methyl-4-isothiazolin-3-one:

Partition coefficient: n-octanol/water	:	log Pow: -0.71 - 0.75 Method: Measured Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

2-methylisothiazol-3(2H)-one:

Bioaccumulation	:	Remarks: Does not bioaccumulate.
Partition coefficient: n-octanol/water	:	log Pow: -0.75 Method: Measured Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Propanediol:

Bioaccumulation	:	Bioconcentration factor (BCF): 0.09 Method: Estimated.
Partition coefficient: n-octanol/water	:	log Pow: -1.07 Method: Measured Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Glycerol:

Partition coefficient: n-octanol/water	:	log Pow: -1.76 (20 °C) Method: Measured Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

12.4 Mobility in soil

Product:

Distribution among environmental compartments	:	Remarks: The product is not expected to be mobile in soils.

Components:

Alcohols, C12-C15, ethoxylated:

Distribution among environmental compartments	:	Remarks: No relevant data found.

2-methylisothiazol-3(2H)-one:

Distribution among environmental compartments	:	Remarks: No relevant data found.

Propanediol:

Distribution among environmental compartments	:	Koc: < 1 Method: Estimated. Remarks: 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).

Glycerol:

Distribution among environmental compartments	:	Koc: 1 Method: Estimated. Remarks: Potential for mobility in soil is very high (Koc between 0 and 50). 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.

12.5 Results of PBT and vPvB assessment

Product:

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.

Components:

Alcohols, C12-C15, ethoxylated:

Assessment	:	This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

5-chloro-2-methyl-4-isothiazolin-3-one:

Assessment	:	This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

2-methylisothiazol-3(2H)-one:

Assessment	:	This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Propanediol:

Assessment	:	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).

Glycerol:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is readily biodegradable and thus is not considered persistent or very persistent (P or vP).

12.6 Other adverse effects

Product:

Endocrine disrupting potential : 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.

Components:

Alcohols, C12-C15, ethoxylated:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

5-chloro-2-methyl-4-isothiazolin-3-one:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

2-methylisothiazol-3(2H)-one:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Propanediol:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Glycerol:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or

listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
IATA	:	UN 3082

14.2 UN proper shipping name

ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (cyantraniliprole)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (cyantraniliprole)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (cyantraniliprole)
IATA	:	Environmentally hazardous substance, liquid, n.o.s. (cyantraniliprole)

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADR	:	9	
RID	:	9	
IMDG	:	9	
IATA	:	9	

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)

RID

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Remarks	:	Stowage category A

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

14.5 Environmental hazards

ADR

Environmentally hazardous	:	yes

RID

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes(cyantraniliprole)

14.6 Special precautions for user

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E1	ENVIRONMENTAL HAZARDS

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.
The mixture is evaluated within the frame of the provisions of Regulation (EC) No. 1107/2009.
Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements

H301	:	Toxic if swallowed.
H302	:	Harmful if swallowed.
H310	:	Fatal in contact with skin.
H311	:	Toxic in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H330	:	Fatal if inhaled.
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.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation

Dow IHG	:	Dow Industrial Hygiene Guideline
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
Dow IHG / STEL	:	Short term exposure limit
Dow IHG / TWA	:	Time weighted average
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.

Further information

Classification of the mixture:		**Classification procedure:**
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

Product code: GF-4000

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / 6N